Component Studies
Socio-Economic Environment

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Current Land and Resource Use in the Lower Churchill River Area

January 2009

Environmental Impact Statement for the
Lower Churchill Hydroelectric Generation Project

nalcor energy

CURRENT LAND AND RESOURCE USE IN THE LOWER CHURCHILL RIVER AREA

ENVIRONMENTAL BASELINE REPORT
LCP 587627

January 20, 2009

FINAL REPORT

Prepared by Minaskuat Inc.
for
Newfoundland and Labrador Hydro

EXECUTIVE SUMMARY

In June of 2007 Minaskuat Limited Partnership was retained by Newfoundland and Labrador Hydro to conduct a study of current land and resource use in the lower Churchill River valley. The study was initiated as part of the environmental baseline research being completed for the proposed Lower Churchill Hydroelectric Development (the Project). The study is concerned with current land and resource use in a Study Area that extends from the southern limits of the proposed reservoir to the interconnecting transmission line that will run approximately parallel to Phase I of the TLH between Happy Valley-Goose Bay and Churchill Falls. Through secondary source research and a series of interviews, the residents of Happy Valley-Goose Bay, North West River, Mud Lake, Sheshatshiu, and Churchill Falls have been identified as the primary users of the resources within this area and hence, in this context only, the Study Area also includes these communities.

The study focused on gathering and presenting primary and secondary source material on current use of land and resources for traditional, recreational and commercial purposes. The data collected during the Study will be used in the assessment of the potential environmental effects of the Project on land and resource use by Innu and other Aboriginal and non-Aboriginal persons.

Secondary source material and existing field data indicate that current land and resource use of the Study Area by Innu for subsistence and traditional purposes is focused on (but not limited to) areas adjacent to the TLH Phase I between Happy Valley-Goose Bay and Churchill Falls. While there has been some recent use of the river, current land and resource use activities continue to be centred in areas used prior to permanent settlement in the 1960s, including the Eagle River (Nutapinuant-shipu) and its many tributaries, which are described by Armitage and Stopp (2003) as a core land use area. Other areas of importance for Innu harvesting include the headwaters of the Red Wine River, Minipi Lake, Mud Lake, Seal Lake, Shipiskan Lake, Snegamook Lake and Kapinien-nipi (Armitage 1989,1990), as well as Metchin, Cache, and Goose Rivers, which in part overlap with the current Study Area. Moreover, sources indicate that the use of Churchill River has declined significantly since the original Churchill Falls Development in the 1960s.

For other Aboriginal and non-Aboriginal persons, land and resource use activities within the Study Area for recreational and subsistence purposes take place throughout the entire year, with hunting, trapping, and snowmobiling concentrated between October and June, and activities such as boating and berry picking occurring during the remainder of the year. Many activities, such as fishing, cabin use, and wood cutting, occur throughout the year. The areas of most use include the section of the Churchill River downstream of Muskrat Falls, the Churchill River west of Winokapau Lake, and the corridor created by the TLH Phase I between Happy Valley-Goose Bay and Churchill Falls. The area of the river between Muskrat Falls and the west end of Winokapau Lake sees only limited use for hunting, fishing and recreational boating.

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1.0 INTRODUCTION

Newfoundland and Labrador Hydro (Hydro) is proposing to develop the hydroelectric potential of the lower Churchill River. In June of 2007, Minaskuat Limited Partnership (Minaskuat) was retained by Hydro to conduct a study of current land and resource use in the vicinity of the proposed development, including the use of natural resources in the area, and use of the lower Churchill River generally. This report presents the results of the study in the context of subsistence, recreational and commercially based land and resource use for the Innu, and other Aboriginal and non-Aboriginal persons residing in Labrador. In the context of this report, subsistence refers to activities to supplement diet and/or income rather than a primary source of diet and/or income.

1.1 Lower Churchill Hydroelectric Generation Project

The Lower Churchill Hydroelectric Generation Project (the "Project") will include hydroelectric generating facilities at Gull Island and Muskrat Falls, and interconnecting transmission lines to the existing Labrador grid. The Gull Island facility will consist of a generating station with a capacity of approximately 2,000 MW and include:

- a dam 99 m high and 1,315 m long and
- a reservoir 215 km² in area at an assumed full supply level (fsl) of 125 m above sea level (asl)

The dam will be a concrete faced rockfill dam. The reservoir will be 230 km long, and the area of inundated land will be 85 km² at fsl. The powerhouse will contain four to six Francis turbines.

The Muskrat Falls facility will consist of a generating station that will be approximately 800 MW in capacity and will include:

- a concrete dam with two sections on the north and south abutments of the river and
- a 100 km² reservoir at an assumed fsl of 39 m asl

The north section dam will be 32 m high and 432 m long, while the south section will be 29 m high and 125 m long. The reservoir will be 60 km long and the area of inundated land will be 41 km² at fsl. The powerhouse will contain four to five propeller or Kaplan turbines, or a combination of both.

The interconnecting transmission lines will consist of:

- a 735 kV transmission line between Gull Island and Churchill Falls and
- two 230 kV transmission lines between Muskrat Falls and Gull Island

The 735 kV transmission line will be 203 km long and the 230 kV transmission lines will be 60 km long. Both lines will likely be lattice-type steel structures. The location of the transmission lines will be north of the Churchill River; the final route is the subject of a route selection study that will be included in the environmental assessment. The lines between Muskrat Falls and Gull Island will be combined on double-circuit structures.

The Project design may be refined as Project details become available.

1.2 Purpose and Objectives

The purpose of the study is to identify and describe current land and resource use within the lower Churchill River valley generally, and other areas where Project infrastructure will be situated or where physical disturbance will occur. The primary objectives of the current land and resource use environmental baseline report are to describe:

- legislative and management strategies in place for activities that may occur within the Study Area including commercial, recreational and subsistence hunting, fishing and trapping, boating, cabin use, outfitting, adventure/nature tourism, parks and special areas development, trails, forestry, mineral exploration and quarries, military activities, and agriculture;
- current Innu land and resource use (using secondary sources); and
- current land and resource use patterns by other Aboriginal and non-Aboriginal persons (using primary and secondary sources).

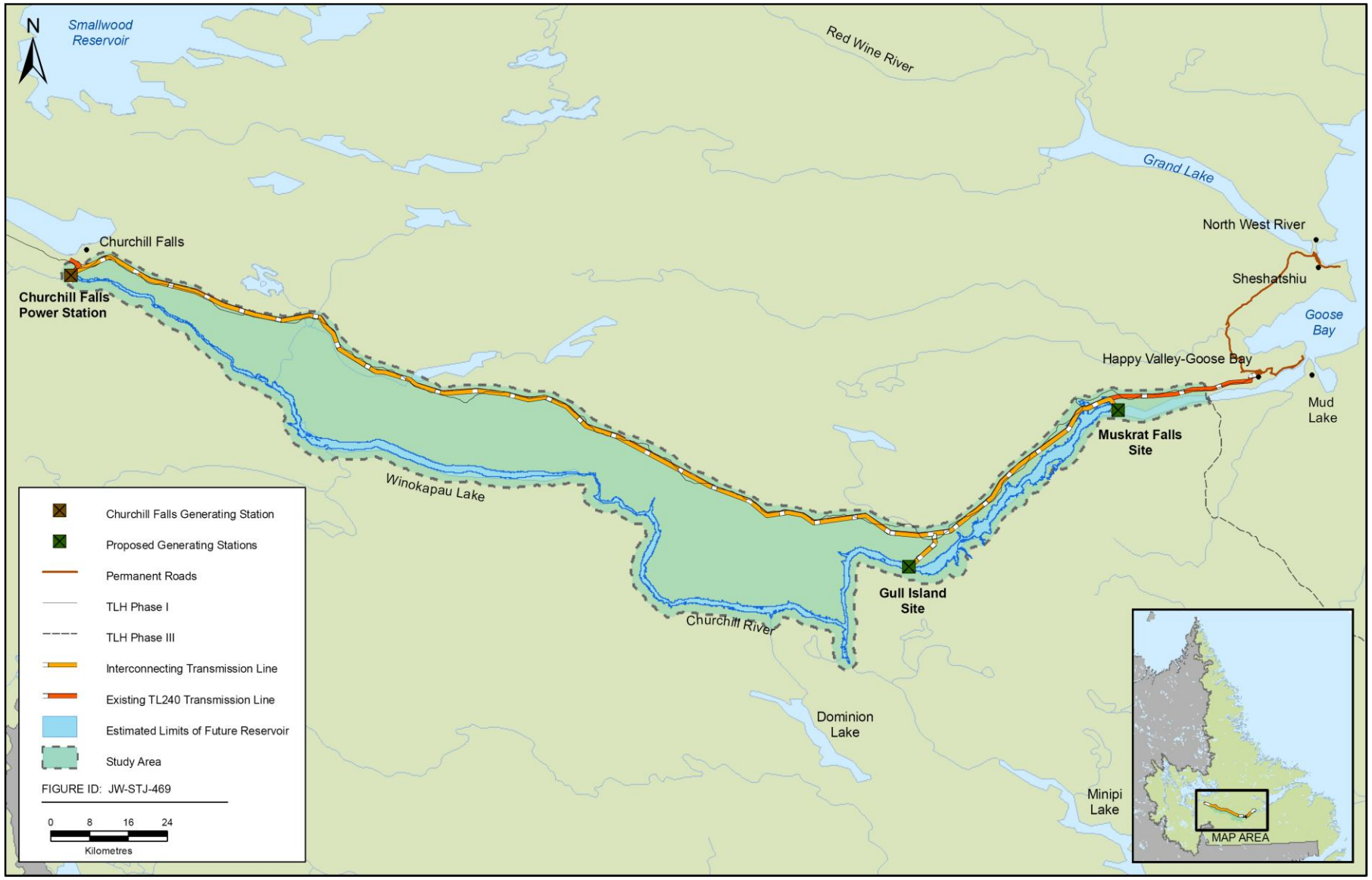
The information gathered will be used in the assessment of the potential environmental effects of the Project on land and resource use.

1.3 Study Area

This study is concerned with current land and resource use in an area that extends north from the southern limits of the proposed reservoir to the interconnecting transmission line that roughly parallels Phase I of the Trans Labrador Highway (TLH) between Happy Valley-Goose Bay and Churchill Falls (Figure 1-1). The residents of Happy Valley-Goose Bay, North West River, Mud Lake, Sheshatshiu, and Churchill Falls have been identified through initial research as the primary users of the resources within this area and hence, in this context only, the Study Area also includes these communities.

There are two regional economic zones in the Study Area. Regional Economic Zone Three is the inland area adjacent to Lake Melville and includes the Town of Happy Valley-Goose Bay, the Town of North West River, the community of Sheshatshiu, and the smaller settlement of Mud Lake. In Western Labrador, Regional Economic Zone Two (Hyron Regional Economic Development Corporation) includes the towns of Churchill Falls, Labrador City and Wabush. Specific elements of land and resource use, such as forestry, fishing, and hunting, are defined by specific and varied administrative and economic boundaries (e.g., Forest Management Districts (FMDs). As a result, areas of focus may vary for specific land use elements.

Figure 1-1 Current Land and Resource Use Study Area



1.4 Report Structure

The Current Land and Resource Use Environmental Baseline Report consists of seven sections. The initial section includes a brief description of the Project and identifies the purposes and objectives of the Study. The section also includes a definition of, and rationale for, the Study Area. In the next section, the Study Team is identified, along with relevant educational background and work experience. This is followed by a description of the methods used to collect and analyze the baseline data, followed by a brief background/contextual overview of land and resource use activities in the lower Churchill River valley by Aboriginal people prior to the arrival of Europeans in North America, and by Aboriginal and non-Aboriginal persons during the historic and contemporary periods. The fifth section describes the management and regulatory framework for current land and resource use within the Study Area. The next section presents a comprehensive analysis of current land and resource use patterns in the Study Area by Innu and by other Aboriginal and non-Aboriginal persons, followed by a summary and conclusions of the key study findings. A listing of all reference material and individuals consulted is also included.

2.0 STUDY TEAM

The Current Land and Resource Use Environmental Baseline Report was prepared by Minaskuat. The Study Team included a component and study manager, senior reviewer, researchers, and data management and reporting personnel (Table 2-1). Brief biographical statements, highlighting project roles, responsibilities, and relevant education and employment experience, are provided below.

Table 2-1 Study Team - Current Land and Resource Use Environmental Baseline Report

Role	Personnel
Component Manager	Mark Shrimpton
Study Manager	Roy Skanes
Research Associate	Dana Feltham
Senior Reviewer	Dr. Paul F. Wilkinson
Research Assistants	Jodie Ashini, Randy Best
Data Management and Reporting	Dana Feltham, Roy Skanes

Mark Shrimpton M.A., has over 25 years experience in socio-economic consultant research, assessing, planning and managing the impacts of resource industry activities. This has included work for the hydroelectric power, mining and petroleum sectors, and for governments, international agencies and communities. In Canada, Mark has played a lead role in preparing: socio-economic impact assessments of the Lower Churchill hydroelectric generation project, Voisey's Bay mine/mill and processing plant, and the Hibernia, Terra Nova, White Rose, Hebron, Newfoundland Transshipment Terminal and Newfoundland LNG petroleum projects and studies monitoring the socio-economic effects of resource development activity. He has also worked in the US, Iceland, the Faroe Islands, France, Switzerland, the Falkland Islands and Australia, including managing the preparation of socio-economic impact assessments of hydroelectric and smelter projects in Iceland. Mr. Shrimpton was the Component Manager for the study.

Roy Skanes, B.A., M.Phil., has worked with Jacques Whitford and Minaskuat Limited Partnership for the past 18 years and has been involved in archaeological and archival research and informant interviewing since 1978. He has worked extensively in Newfoundland and Labrador, Nova Scotia, Prince Edward Island, New Brunswick, Québec, Ontario and Alberta. Since 1990 he has been involved in a number of projects of similar scope and depth to the current undertaking, including the completion of land and resource use interviews and background research for various phases of the TLH, notably for Phase II from Red Bay to Cartwright Junction. He has also completed interviews for a number of assessments on the Island. For the current study, Mr. Skanes had primary responsibility for the collection, analysis and presentation of interview data related to current land and resource use of the Study Area by other Aboriginal and non-Aboriginal persons. As such, he completed interviews in North West River, Happy Valley-Goose Bay, Churchill Falls and Labrador City-Wabush.

Dana Feltham, MLIS, specializes in socio-economic studies, public consultation, regulatory affairs and policy development. Ms. Feltham has 10 years of experience in the area of multi-disciplinary research, with a focus on the Newfoundland and Labrador energy industry. From 2003 to 2007, Ms. Feltham worked with the Newfoundland Ocean Industries Association in the area of Policy and Research, serving as Policy and Research Coordinator and Policy Analyst. In this capacity, she was responsible for policy development on issues related to human resources, federal and provincial regulatory affairs and industrial opportunities. Ms. Feltham was responsible for the collection of secondary source

material on land and resource use in the Study Area. Ms. Feltham was also responsible for the analysis of interviews and for the final compilation of the report.

Dr. Paul F. Wilkinson, combines advanced academic credentials, university-based research and administrative experience, and has spent 30 years exploring, applying and refining techniques for assisting Aboriginal communities to deal effectively with the social, economic and environmental pressures imposed on them.

His experience covers the following principal areas: negotiation and other non-adversarial dispute resolution/avoidance techniques; community-based economic development; community - private-sector commercial/industrial partnerships; community-level governance; capacity-building/institutional strengthening; community consultation and participatory research; co-management regimes; environmental and social impact assessments (project-specific and strategic); impact and benefit/ participation agreements; environmental policy; regional planning; environmental training; socio-economic surveys; program/policy/institutional evaluations; resettlement/rehabilitation; Traditional Knowledge studies; land-use/resource harvesting studies; gender issues; biodiversity.

Dr. Wilkinson also has over 30 years of experience as an advisor to First Nations and Aboriginal organizations, including the Naskapi Nation of Kawawachikamach, the James Bay Crees, the Inuit of Québec, the Innu of Natuashish, several Québec Innu communities, the Algonquins of Wolf Lake, the MicMacs of Conne River, several Cree communities in Northern Ontario, the Nunavut Water Board, the Nunavut Impact Review Board and the Treaty 8 Tribal Corporation. He was a member of the federal panel that reviewed low-level military flight-training over parts of Labrador and Québec and is a past president of the James Bay Advisory Committee on the Environment. Dr. Wilkinson has also worked with Aboriginal communities, governments, corporations and funding agencies across Canada and internationally.

Dr. Wilkinson provided senior review and was consulted on issues related to Aboriginal land use in the Study Area.

Randy Best, with Minaskuat Limited Partnership, conducted interviews with residents of Mud Lake and Happy Valley-Goose Bay. Randy's considerable knowledge of the area and the residents who use the land and resources of the lower Churchill River valley, was an asset to the study. Mr. Best is a Beneficiary of the Nunatsiavut Government (Formerly LIA). He has worked in remote locations of Labrador during most of his life and has worked with Mineral Exploration and construction projects since the discovery of Voisey's Bay.

Jodie Ashini with Minaskuat Limited Partnership is a third-year university student specializing in anthropology. For the current study she assisted with the collection of secondary source material, particularly that related to communities.

3.0 METHODOLOGY

Information on current land and resource use activities for this study was collected though both primary research as well as the identification, collection and analysis of existing and available secondary sources. Information was collected on a broad range of subsistence, recreational and commercial land and resource use activities currently being carried out in the Study Area. Where appropriate, information gathered for other studies being conducted for the Project was used to minimize duplication of effort and contacts. Information on cabins in the Study Area was collected though an aerial survey completed by Hydro in 2007.

For the purpose of the report, "current" is defined as the period following the construction of Phase I of the TLH (from Happy Valley-Goose Bay to Churchill Falls) in the 1980s which represents the most recent fundamental shift in land and resource use in the region. However, this definition will not preclude the consideration of respondent and other information where relevant.

3.1 Literature Review

Primary and secondary sources were reviewed to identify information on the following:

- legislation, regulations, policies and guidelines governing land and resource use activities in the Study Area, including:
    - Aboriginal land claims
    - settlement and municipal land use
    - hunting and trapping
    - berry picking, medicinal plants
    - commercial and recreational fishing
    - outfitting operations
    - parks, reserves and special areas
    - forestry
    - mining and mineral exploration
    - agriculture
    - recreation and
    - military activity
- Innu land and resource use (using secondary source information only)
- land and resource use patterns by other Aboriginal and non-Aboriginal persons

Information was obtained from reports and data held by various government departments and agencies, including:

- Newfoundland and Labrador Department of Natural Resources (NLDNR)
- Newfoundland and Labrador Department of Municipal Affairs
- Newfoundland and Labrador Department of Environment and Conservation (NLDEC)
- Water Resources Management Division, NLDEC

- Wildlife Division, NLDEC
- Parks and Natural Areas, NLDEC
- Lands Branch, NLDEC
- Newfoundland and Labrador Department of Tourism, Culture and Recreation (NLDTCR)
- Newfoundland and Labrador Department of Innovation, Trade and Rural Development
- Newfoundland and Labrador Department of Fisheries and Aquaculture
- Fisheries and Oceans Canada (DFO)
- Transport Canada
- Parks Canada
- Department of National Defence (DND)

A comprehensive literature search related to Innu land and resource use within the Study Area, and within Labrador generally, was also undertaken. The information presented in this report was obtained from a review of this published and unpublished literature.

The brief summary of information related to the use of the Study Area by Aboriginal people prior to the arrival of Europeans in North America - presented in this report to provide context - were acquired through a review of reports on the archaeological research of the lower Churchill River valley conducted over the past 30 years in relation to the proposed development of the river for hydroelectric power (Thurlow and Associates 1974; Tuck 1981; IEDE/JWEL 2000; JWEL/IELP 2001a, 2001b, 2001c, 2001d). Evidence for the Historic Period usage was derived from archival material and other published and unpublished sources, as well as from archaeological reports and supporting documentation.

3.2 Primary Data Collection

3.2.1 Innu Primary Data Collection

The Study Team was not granted access to collect primary data on the land and resource use patterns of the Innu. Newfoundland and Labrador Hydro has documented its ongoing efforts to engage Innu Nation and obtain current land use data related to the Study Area. Much of the publically available data on Innu land and resource use in the Study Area is related to previous studies completed between 1989 and 2003. As a result, there is a temporal gap in the information available on Innu land and resource use in the Study Area. However, it is the Study Team's opinion that there is no reason to believe that there has been an obvious cause of a fundamental change in the nature, intensity or distribution of land and resource use. It has also been determined that, without the benefit of Innu participation, the Study Team could not adequately address issues related to the spiritual and historic importance of the Study Area to Innu.

3.2.2 Interviews

Interviews were held in Labrador to gather additional information on a broad range of subsistence, recreational and commercial land and resource use activities currently being carried out in the Study Area. Information related to hunting, fishing, trapping, boating, snowmobile and all-terrain vehicle (ATV) use, wood harvesting, berry picking, cabin use and outfitting was collected through telephone and in-

person interviews with residents of Happy Valley-Goose Bay, North West River, Mud Lake, Churchill Falls, Labrador City and Wabush.

Informants were identified using a "snowball" approach, whereby key users were asked to identify other individuals known to use the Study Area. This approach allowed for the ongoing identification of important land and resource users.

In addition to the approach identified above, notices that interviews on land and resource use were being conducted were placed on the Hydro website, as well as on local radio stations and in newspapers (Appendix A). The announcements appeared in the following publications:

- *The Labradorian*
    - July 30, 2007
    - August 13, 2007
    - August 20, 2007
- *The Aurora*
    - July 30, 2007
    - August 6, 2007
    - August 20, 2007

These announcements invited both people and organizations involved in recreational, subsistence and/or commercial land and resource use activities to contribute information for consideration in this report. Additionally, a public service announcement regarding an Angling and Fish Consumption Telephone Survey was posted. This survey provided additional information regarding consumption of fish from the Lower Churchill River by Lake Melville residents.

Over the course of the study, approximately 100 people in the five communities were contacted. Of this number, approximately 45 were interviewed using a questionnaire and maps of the Study Area on which information related to land and resource activities in the Study Area was recorded. In cases where people did not wish to be interviewed in person, or felt they had little information to provide, questions related to land and resource were asked over the telephone. This accounts for 20 of the interviews.

Interviews were tailored to address specific aspects of each resource type and activity, as well as the current status of the resource and any emerging trends or changes in resource use or populations of relevant resource species. The interviews focused on any changes that may have occurred since development of the TLH Phase I between Happy Valley-Goose Bay to Churchill Falls in the 1980s.

Informants were first informed of the purpose of the interview, and their consent that the data be used in the report was confirmed. Their gender, age and home community were also recorded. Interviews generally followed a structure outlined in a questionnaire tailored to guide the informant through the needed topics (Appendix A). If the individual did not wish to be recorded on tape, the questionnaire was completed by the interviewer. A 1:250,000-scale map of the Study Area with labeled landscape features such as rivers and brooks, was used during interviews to provide the informant with a visual

orientation to the area and to assist with the responses to questions related to land and resource use. In cases where additional landscape details were required by informants to better focus on harvesting or use areas, 1:50,000 topographic mapping of the Study Area were also available. The maps were also used to record specific data, such as the locations of trapping, fishing or hunting areas, as well as any cabins or structures used during resource activities or harvesting. The locations of any sites or structures of historical or archaeological significance were also noted on the maps.

Interviews also focused on whether the Study Area is currently used for travel by boat, snowmobile or ATV, or for hunting, fishing or trapping. If so, specific information was recorded regarding the time of year in which the activities take place, the usual numbers of animals, fish and birds harvested, and the type of transportation used. Information on the general level of use of the Churchill River and adjacent terrain was also noted, and questions were asked to determine which, if any, sections of the river were typically used for winter-travel, and if there was any location that the informant found particularly noteworthy from an aesthetic point of view. Informants were also invited to suggest the names of others who could provide additional information on use of the Study Area for any of the identified activities. Information obtained from informants was summarized from the questionnaire and tape recordings and, where appropriate, plotted on area land use maps for subsequent analysis and presentation in this report to highlight, in a general way, land use patterns.

Interviews were also conducted with government personnel including fisheries and wildlife officers familiar with the Study Area. Where appropriate, these interviews were conducted using the questionnaire developed for use within the communities. Where additional or more specific information was required, these respondents were also contacted on an ad hoc basis.

3.3 Aerial Survey

Cabin locations along the lower Churchill River were researched through existing databases and confirmed through an aerial survey conducted by Hydro in June 2007. Prior to the aerial survey, information on cabin locations and ownership was requested from the Crown Lands Branch in Happy Valley-Goose Bay. Subsequently, a listing of all Crown Lands titles issued for the lower Churchill River area was provided, along with GPS coordinates if known.

The aerial survey was completed to confirm the locations of the cabins provided and to record any others that may exist. Prior to the flight, inquires were made with local residents for any additional and relevant data. When a cabin was identified from the air, photographs and global positioning system (GPS) coordinates were obtained for subsequent plotting on Project mapping.

4.0 HISTORIC AND ARCHAEOLOGICAL CONTEXT

To provide background and context, this section summarizes the longstanding use of the lower Churchill River valley by a number of different Aboriginal and European cultural traditions for the Precontact (circa 8,000 to 500 years before present (BP)), the Historic (circa 500 BP to 1960 AD), and Contemporary Periods (1960 AD to present). The Precontact Period is defined as the period of human occupation beginning with the initial human presence in Labrador and extending to the time of European contact with Aboriginal people circa 1500 AD.

4.1 Precontact Cultural Traditions in Labrador (8,000 to 500 BP)

Archaeological research carried out since the late 1940s (Harp 1951, 1963; Harp and Hughes 1968) indicates that the human occupation of Labrador began in the Strait of Belle Isle, where Palaeo-early Maritime Archaic Amerindian (defined as the peoples living in North, South or Middle America prior to the arrival of Europeans circa 1500 AD) sites dating to approximately 8000 years BP have been discovered (McGhee and Tuck 1975). The early Maritime Archaic people gradually spread north along the coast, and eventually reached Ramah Bay in northern Labrador approximately 7,500 years ago (Fitzhugh 1972, 1978a). The Maritime Archaic Amerindian way of life focused on hunting, fishing and gathering marine resources during the spring and summer, and interior species, such as caribou, small mammals and birds, during the fall and winter (Fitzhugh 1972). In the interior of Labrador on the Lake Plateau, archaeologists have reported ground slate artifacts which may be of Maritime Archaic origin (MacLeod 1967, 1968). Sites have also been recorded at Kameshtashtan (Loring 2001), Northwest Corners (Fitzhugh 1986), and Mushuau-nipi (Samson 1978; IEDE/JWEL 2000).

After approximately 4,000 BP, Maritime Archaic sites become rare and are eventually replaced in the Labrador archaeological record by a different Amerindian tradition referred to as Intermediate. The Intermediate Amerindian occupation, which dates from circa 3,500 to 2,000 BP, shows a marked adaptation to interior ecosystems, with only limited and seasonal use of marine resources (Fitzhugh 1972; Nagle 1978).

Also circa 4,000 BP, the first Arctic-adapted people - referred to as the Palaeo-Eskimo (Pre-Dorset, 4,000 to 3,500 BP) - made their appearance on the north Labrador coast. The arrival of Palaeo-Eskimo groups in Labrador from the eastern Arctic meant that the Amerindian groups had to compete or coexist with the new immigrants from the north for a period of 400 to 500 years. The Palaeo-Eskimo tradition is divided into two broad periods (Early and Late), which are further represented by a number of complexes and/or phases (Early Palaeo-Eskimo: Independence 1; Early Pre-Dorset; Pre-Dorset and Groswater; Late Palaeo-Eskimo; and Early, Middle and Late Dorset), each with slight temporal and regional variations. Both the Groswater and Dorset settlement and subsistence patterns are characterized by a primary focus on marine mammals, with limited use of terrestrial species.

A subsequent period of Aboriginal occupation in Labrador is the Late Precontact Indian Period (sometimes referred to as Recent Indian), which is characterized by the Daniel Rattle (1,750 to 950 BP) and Point Revenge (1,250 to 350 BP) stone tool complexes dated to just before the historic contact between Innu and European cultures circa 1500 AD (Fitzhugh 1978b). Recent Indian sites are found in inner and outer coastal zones, indicating a more intensive use of marine resources than during the previous Intermediate Indian Period. Sites dating to this period of occupation have also been recorded

in limited numbers in the Labrador interior (MacLeod 1967, 1968; McAleese 1992, 1993; Loring 2001; IEDE/JWEL 2000; Loring et al. 2003).

Both Intermediate and Late Precontact Period Indian peoples occupied coastal Labrador at the same time as Palaeo-Eskimo groups. Abandonment of areas of the central coast by Palaeo-Eskimo was routinely followed by incursions of Indian peoples, whereas it appears that the arrival of Palaeo-Eskimos generally displaced Indian peoples further southward, and restricted seasonal movements away from the coast toward the interior.

The final migration of an Arctic-adapted population into northernmost Labrador began circa 1250 AD (Fitzhugh 1994) by a people unrelated to the Dorset Palaeo-Eskimo. The Thule, sometimes referred to as Neo-Eskimo Thule, arrived in Labrador from the western Arctic during a period of climatic warming. This group brought with them a maritime technology adapted to Arctic resource procurement, such as hunting large marine mammals. No definite Thule sites have been recorded south of the Hopedale. By 1600 AD, contact with Europeans in Labrador brought about a replacement of traditional technologies with the introduction of ceramics and metals, as well as eventual geographic expansion southwards to meet with European traders. The sites associated with a European influenced material culture are specific to the Historic Period and are ascribed to the historic Labrador Inuit. Today's Labrador Inuit are direct descendants of the Thule culture (Schledermann 1976; Jordan 1977, 1978; Kaplan 1983, 1985; Fitzhugh 1994; IEDE/JWEL 2000).

The arrival of the Thule on the Labrador coast may have disrupted the long established trade networks of the Precontact Indian groups and denied them access to traditional coastal localities. This, as well as possible conflicts, may have resulted in Indian peoples withdrawing from the coast to the inner bays and Labrador interior, eventually resulting in the lifestyle associated with the historic Innu (Fitzhugh 1994).

4.2 Use of the Study Area during the Precontact Period

Archaeological research of the Study Area since the 1970s has resulted in the identification of 26 sites with Precontact Period remains (Thurlow and Associates 1974; Tuck 1981; IEDE/JWEL 1998; IEDE/JWEL 2000; JWEL/IELP 2001a, 2001b, 2001c, 2001d; Minaskuat 2008a). Of these, one at Muskrat Falls is dated on typological grounds to the Rattlers Bight Phase (4,000 to 3,800 BP) of the Maritime Archaic Period, and one on Gull Lake to the Point Revenge (1,000 to 350 BP) or Daniel Rattle complex (2,000 to 1,000 BP) of the Late Precontact Period. The remainder of the sites date to the Intermediate Period of occupation (3,500 to 2,000 BP), based on the type of raw material used for stone tool production located during archaeological testing. The predominance of Intermediate Period sites is consistent with research results from elsewhere in the Labrador interior (Schwarz 2007), though a different pattern occurs in the Québec interior, where Late Precontact sites are more common (Denton 1989). The presence of only one Late Precontact site could indicate that, after the Intermediate period, the Churchill River became less important as a travel route and overall settlement in the valley declined. No sites pertaining to the Dorset, Palaeo-Eskimo or Thule occupations of Labrador have been identified in the Study Area.

4.3 The Historic Period (Circa 500 BP to 1960 AD)

4.3.1 The Innu

The Innu are an Algonquian-speaking people who live in the northern boreal forests of North America. Their traditional land base included south and central Labrador and Québec, and the Ungava-George River-Mistastin Lake region to the north. The Innu were a nomadic people who spent extended periods of time hunting in the interior. Current archaeological evidence indicates that the Innu descended from the Late Precontact or Recent Indian tradition (Loring 1992). There is also a growing body of data to suggest that the Intermediate Indian occupation of Labrador is ancestrally linked with that of the Late Precontact Period (Loring 1989; Samson 1993; IEDE/JWEL 2000).

During the Historic Period (circa 500 BP to 1960 AD), there is little information dating to prior to the nineteenth century related to Innu use of the Study Area. Even though there were interactions with European traders before this time, these interactions occurred mainly at coastal fur trading posts. The Innu spent the majority of the year hunting and traveling in the interior, where Europeans appear rarely to have ventured (JWEL/IELP 2001d).

The early nineteenth century saw the Hudson's Bay Company (HBC) acquiring certain of the King's Posts on the Lower North Shore of Québec, and establishing their own post at North West River. Deep interior posts like Fort Nascopie (1838 to 1868) and Winokapau Post on the Churchill River (1863 to 1874) were established by the HBC in an effort to bring the trade closer to the Innu interior hunting grounds, and to intercept trade, that might otherwise go to posts on the Lower North Shore of Québec and elsewhere. However, it gradually became clear to the HBC that the fur trade had not transformed the Innu into clients of the company, but that trapping had been incorporated into a traditional lifestyle in which traditional subsistence activities, such as caribou hunting, remained a priority. Moreover, it was apparent that Innu hunters who spent time in the interior covered vast areas within the Labrador-Ungava Peninsula, and were not tied to any particular trading posts. Evidence suggests they shifted their efforts from one post to another to trade to their advantage (IEDE/JWEL 2000; JWEL/IELP 2001d).

Toward the end of the nineteenth century, at a time when the fur trade was approaching its peak, the Innu became more and more involved in the trade. By the end of the century, it appears that the Churchill River was used less as a main travel corridor to and from the interior, as increasing numbers of Innu chose to use the mission station at Sept-Îles on the Lower North Shore of Québec, and either departed the Lake Melville area altogether or came to trade at North West River via alternate routes. Also at that time, Settler trappers from western Lake Melville began to encroach on the trapping grounds along the Churchill River. The relationship between the decline of Innu land and resources use within the lower Churchill River valley and the increase of Settler trapping throughout the area remains a question of debate. Tanner (1947), on one hand, suggests that the Settler encroachments on trapping grounds were driving the Innu from traditional use areas, which, at times, resulted in conflicts. Mailhot (1997), on the other hand, states that the Innu departure from the Churchill River was related to the closing of HBC interior posts, and their subsequent preference to travel to the mission station and post at Sept-Isle. In any event, by the beginning of the twentieth century the section of the Churchill River in which the current Study Area is situated was increasingly becoming an area that was trapped predominately by Settlers from western Lake Melville (IEDE/JWEL 1998; IEDE/JWEL 2000; JWEL/IELP 2001d).

4.3.2 Settlers

The Settlers of Labrador are a people of mixed ancestry, based on an amalgam of European and local Aboriginal (largely Inuit but sometimes Innu) characteristics and practices over time. Commencing in the late eighteenth and early nineteenth century, males from England and Scotland (and to a lesser extent Newfoundland and Canada) travelled to Labrador as employees of various fish and fur-buying companies that at that time were establishing posts along the south, central and north Labrador coast. After the fishing season, young men over-wintered to hunt seals, catch salmon, repair fishing gear, trap furs and construct boats. A percentage of the individuals took up permanent residence in Labrador, marrying local Aboriginal people (mainly Inuit), and establishing independent homesteads and small-scale businesses at protected inner coastal regions (Kennedy 1982, 1988, 1993).

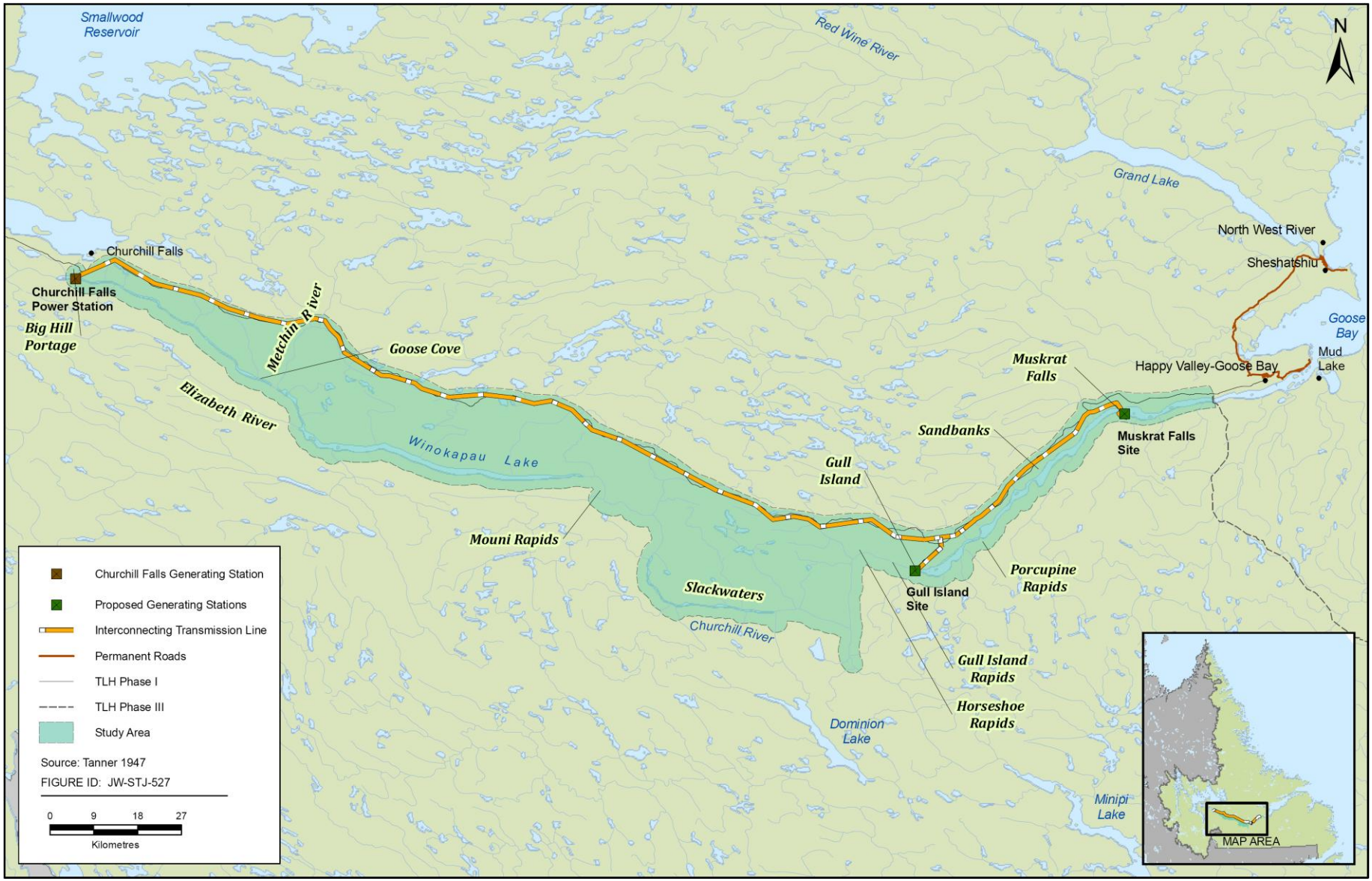
By the mid 1930s, the Settler population in Hamilton Inlet had reached a relatively high number. Many of the families practiced a pattern of seasonal harvesting activities that involved cod fishing and sealing along the outer coast, salmon fishing in the many rivers and smaller brooks of Hamilton Inlet, trapping of fur-bearing animals along well-established traplines, and occasional caribou hunting in the interior (IEDE/JWEL 2000; JWEL/IELP 2001d).

Based on data obtained from oral accounts and the records of early European settlement in the region, it appears that early Settlers spent the winter trapping in the interior on designated trap lines (known as paths) that could contain anywhere from 200 to 300 traps (Tanner 1947; Goudie 1973; Campbell 1980). Trapping paths were accessed from a series of tilts (small, rough-made log cabins) erected at strategic locations for overnight stays. A trap line typically required at least three days to traverse, and possibly more. The prime fur season began in October and ran until the spring. At this time, families would remain at the permanent residence where women maintained household duties and made clothing.

In the spring, the trappers would return and sealing would commence on the frozen ice of Lake Melville. Also, hunting of certain migratory birds would take place. In July, salmon were caught in the many rivers of Lake Melville and subsequently smoked. Many families also moved to their summer residence at the heads of bays to be closer to cod-fishing grounds. Cod were caught, split, salted and dried during August and berry picking began. Many of the foods harvested during this time of year were kept for the winter season, although some was traded for other foods and materials required for the upcoming trapping season. By late summer, families would return to homes in Lake Melville to prepare for the trapping season in the interior (IEDE/JWEL 2000). Trapping grounds used by Settlers in the early twentieth century (within or directly adjacent to the Study Area) are identified on Figure 4-1 with bolded and italicized place names.

Numerous tilts were erected by Settlers along the shores of Winokapau Lake and the Churchill River during the Historic Period. Archaeological research of the Study Area (Thurlow and Associates 1974; Tuck 1981; IEDE/JWEL 1998, 2000; JWEL/IELP 2001a, 2001b, 2001c, 2001d; Minaskuat 2008a) has identified 10 sites thought to be associated with Settler land and resource use activity during the Historic Period. Of this number, virtually all are either tilt or trapping sites situated adjacent to water-bodies. Historic sites of European origin identified to date within the Study Area include the former HBC trading posts at Sandbanks and on Wolf Island at the western end of Winokapau Lake.

Figure 4-1 Trapping Grounds Used in the Early Twentieth Century



4.4 The Contemporary Period (1960 AD to Present)

Under current regulatory policy for archaeological research in Labrador, all material evidence of contemporary land use (that is, land use occurring after 1960 AD) is recorded and inventoried in the course of historic resources assessments and other research projects. This can include, for example, evidence of campsites or tilts, or remains indicating hunting, fishing or trapping locations. If distinct cultural indicators are present (which could include the method of setting a tent and stove, or the type of trap used for a particular species), an assessment of cultural affiliation may also be possible. It is important to point out though, that due to the similarities in the types of materials typically recorded at contemporary sites (such as domestic refuse), an accurate assessment of cultural identity is frequently not possible. However, in circumstances where it is determined from the physical remains and/or from informant interviews that the site was used by a particular group (such as the Innu, for example), a Site Record Forms is completed and filed with the Provincial Archaeology Office of the Department of Tourism, Culture and Recreation.

A detailed recording of contemporary land use locations has value not only because such data may serve as proxy indicators of archaeological potential, but because physical evidence of contemporary land-use sites and materials, used in conjunction with informant interview data and other primary and secondary source material, can help broaden the picture of land use patterns and activities across a defined landscape.

Since 1998, several historic resources field research projects have been carried out along the Churchill River in relation to development of the Project (IEDE/JWEL 1998, 2000; JWEL/IELP 2001a, 2001b, 2001c, 2001d; Minaskuat 2008a). Over the course of this research, 241 contemporary site locations have been inventoried, of which 194 are situated within the current Study Area. Based on the types of materials found at sites, and the geographic settings and conditions in which they were recorded, nine different categories of land use were assigned (Table 4-1).

Table 4-1 Listing of Contemporary Archaeological Sites Recorded for the Study Area

Site Type (listed in order of magnitude)	Number of Sites
Campsites	58 (24 of which are likely Innu)
Trapping site	35 (3 of which are likely Innu)
Wood Cutting Sites	33 (1 of which is likely Innu)
Cabin or Tilt Remains	19 (undetermined cultural affiliation)
Undetermined	15 (undetermined cultural affiliation)
Camping Sites and/or Hearths	13 (1 of which is likely Innu)
Hunting Sites	10 (2 of which are likely Innu)
Industrial Sites or Cache	8 (undetermined cultural affiliation)
Trails or Portage	3 (1 of which is likely Innu)
Source: (IEDE/JWEL 1998, 2000; JWEL/IELP 2001a, 2001b, 2001c, 2001d; Minaskuat 2008a).	

Site categories for the contemporary period identified within the Study Area include a variety of habitation and harvesting sites, such as campsites, cabin or tilt remains, trapping and hunting sites, and wood cutting areas. There are also remains associated with a number of recent camping sites and hearths that could represent overnight stops during travel, trails and portage routes, and locations where industrial activities have occurred and where materials (such as fuel) had been cached. In addition to the above, 15 locations were identified with remains that were either too few or of such a

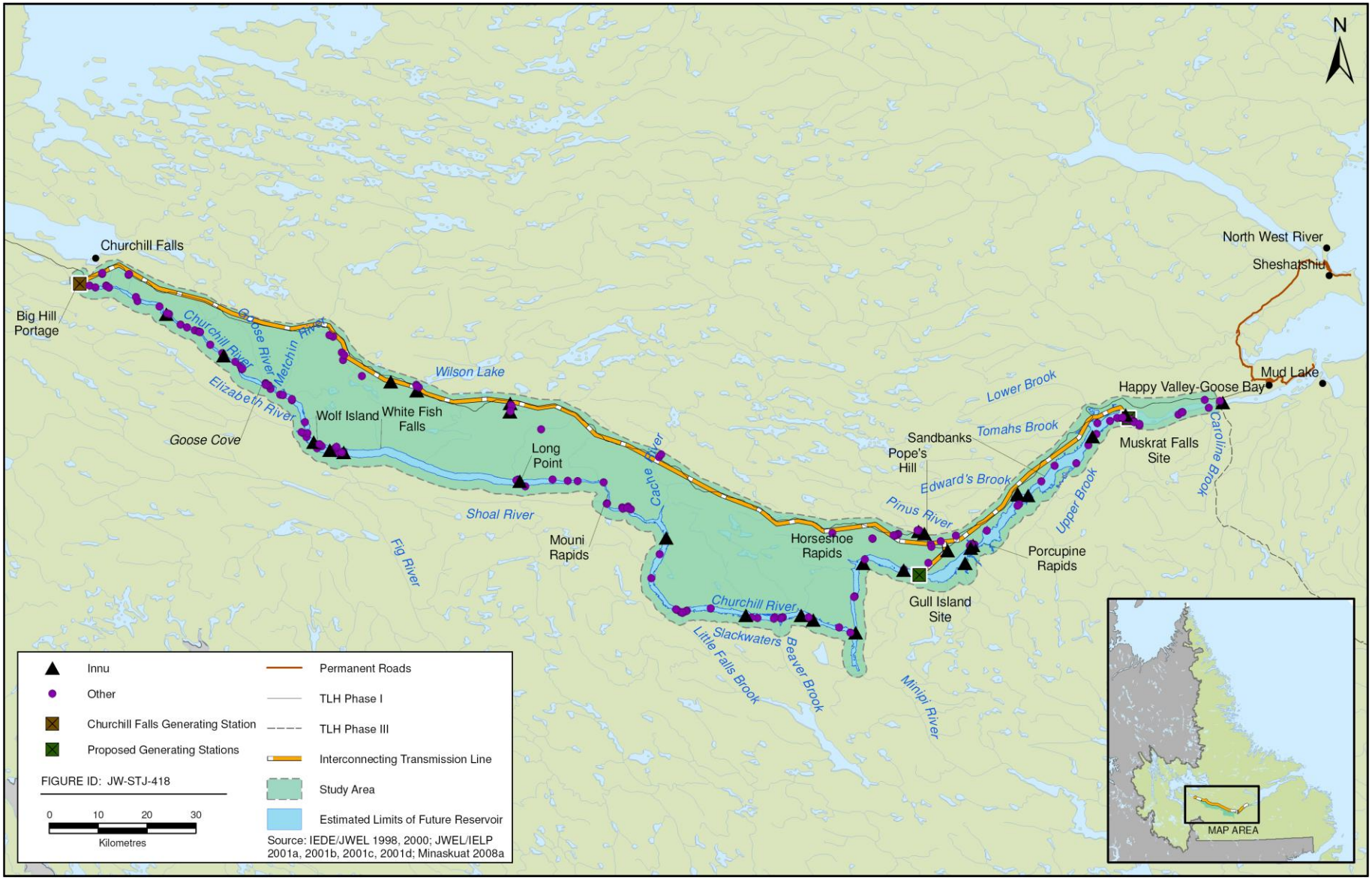
general nature (e.g., scattered tin cans and glass bottles) that a particular land use activity could not be determined.

A distinction is made between campsites and those used for camping, with the latter considered to be related more to recreational or tourism-type camping rather than camps established by residents during harvesting activities. Evidence such as gun shells or the remains of butchered animals or animal bones distinguished between hunting sites and trapping sites, where the remains of traps, trap housings or snares were found in close proximity to brooks, former brooks, or other types of water-bodies. Evidence of wood cutting (typically small-scale) identified at a number of locations but with no other apparent signs of land use, could be linked to any number of activities, including hunting, trapping, camping, fishing, or cooking while travelling or harvesting. The same is true for campsites, in that other land use activities may have taken place from the site identified.

Several of the habitation sites recorded in the Study Area also contain evidence of other activities or functions, such as trapping, hunting and transportation (e.g., camp and associated canoe, tilt and marten traps). Several sites contain hearths or fireplaces (but no habitation feature) and could represent overnight camps by any group. This is also true for woodcutting locations and, to some degree, for campsites, hunting and trapping sites, and cabin or tilt locations. Consequently, in cases where cultural affiliation can be assigned to the different site categories, this information is included in Table 4-1. Where cultural affiliation is uncertain due to the lack of physical evidence, the heading “undetermined” is used.

The distribution of contemporary sites surveyed during the historic resources field program (Minaskuat Inc. 2008) within the Study Area is described in Figure 4-2. As shown, habitation sites (campsites, cabins and tilts) are numerous along the shoreline of the Churchill River near the mouths of tributaries and small brooks, with clusters present at Muskrat Falls, near the mouth of Pinus River, throughout the Slackwaters area above Gull Island, at Mouni Rapids, and at the east end of Winokapau Lake. Some of the sites situated at the mouths of water-bodies could be associated with *ashkui* (see Section 5.6.2 of this report). At the west end of the Winokapau Lake in the vicinity of Wolf Island, and to the west of there all the way to Churchill Falls, there is a concentration of sites representing virtually all categories of land and resource use identified for contemporary sites. Along the TLH Phase I, few sites were recorded, and the majority of those that were, are related to woodcutting (which could have been associated with any number of other activities) and hunting. It is important to note that the apparent lack of sites identified along this corridor may be due to the relatively limited level of archaeological research conducted in that area. Equally, and in contrast to the highway, the volume of sites recorded along Churchill River within the Study Area is a direct reflection of the level of assessment carried out there (IEDE/JWEL 1998, 2000; JWEL/IELP 2001a, 2001b, 2001c, 2001d; Minaskuat 2008a).

Figure 4-2 Contemporary Archaeological Sites Distribution



5.0 ADMINISTRATIVE FRAMEWORK FOR CURRENT LAND AND RESOURCE USE ACTIVITIES

Land and resource use activities within the Study Area are subject to various legislative, regulatory and management requirements and practices. The following sections provide a discussion of this framework based on information gathered through a literature review and from various government sources. It consists of a discussion of the following:

- Aboriginal Land Claims
- Municipal Land Use and Communities
- Hunting and Trapping
- Recreational and Commercial Fishing
- Other Recreational Activity
- Parks, Reserves and Special Areas
- Outfitting Operations
- Berry Picking and Agriculture
- Forestry
- Mining and Mineral Exploration
- Military Activity

5.1 Aboriginal Land Claims

The Labrador Innu land claim has been accepted for negotiation by the federal and provincial governments. The negotiation of a Land Claim Agreement-in-Principle (the interim step before a Final Agreement) is ongoing between Innu Nation and the governments of Newfoundland and Labrador and Canada. The Project is located within the Labrador Innu Land Claim Area.

The Labrador Métis Association was established in 1985, and renamed the Labrador Métis Nation (LMN) in 1998. The LMN reports a membership of approximately 6,000 members. They live throughout Labrador and elsewhere, with concentrations in the Lake Melville area and along the southern coast from Cartwright to Mary's Harbour. The LMN has asserted a land claim in the region; however, this claim has not been accepted for negotiation by either the federal or provincial governments.

5.2 Municipal Land Use and Communities

Municipal land use in Newfoundland and Labrador is the responsibility of the Newfoundland and Labrador Department of Municipal Affairs, specifically the Land Use Planning Section of the Division of Engineering and Land Use Planning, which is responsible for administering the provisions of the *Urban and Rural Planning Act, 2000*. The Act establishes the Province's land use planning system and outlines the requirements for preparing, approving and implementing planning documents, including municipal, regional, local and protected area plans.

A municipal plan is a legal document prepared in accordance with the *Urban and Rural Planning Act, 2000*. Under the Act, the area defined by the plan application may be declared a Municipal Planning

Area (MPA). A MPA may include land outside of the municipality to enable it to exercise control over development, to control municipal water supplies and other amenities. Plans and development regulations are binding upon the municipalities and councils within the planning area governed by the plan, and any person undertaking a development in the MPA.

Under a municipal plan, the MPA is divided into land use zones and the plan indicates permitted, prohibited and discretionary uses in each. The plan and development regulations must be reviewed not more than five years after the plan and regulations came into force. Plans and regulations may be revised as necessary in accordance with developments that can be foreseen within 10 years.

Section 32 of the *Urban and Rural Planning Act, 2000* enables an existing or proposed highway to be declared a protected road for the purposes of controlling development. Most of the length of the TLH is zoned as a protected road. These regulations control development along roadways and access off roadways in the Province. Unless within a municipality or MPA, building control lines are established as 400 m from the road centre line and development within these lines requires a permit.

Areas within building control lines may be designated as a protected road zoning area and a protected road zoning plan may be prepared for development based on public convenience and general welfare, economic use of land, improved facilities for traffic, transportation, sewage disposal, water supply, recreation and other public requirements.

Five communities are considered in this report: Happy Valley-Goose Bay, North West River, Mud Lake, Sheshatshiu, and Churchill Falls. Within the Study Area, Happy Valley-Goose Bay and North West River have Municipal Plans in place. There are currently no Regional, Local or Protected Area Plans in Labrador.

With 7,572 residents and occupying 345 km^2, Happy Valley-Goose Bay is the largest municipality in Labrador. Happy Valley-Goose Bay was established in 1941 when an Air Force Base was developed, “to co-ordinate and supplement the North Atlantic Ferry Command via the Atlantic Bridge” (Plaice 2002) for Canadian, British and American forces. The base fulfilled a variety of duties throughout World War Two, including serving as a staging area for 24,000 Canadian and American built aircraft (DND 2007). After the war, the base continued to serve as an important refueling location for trans-Atlantic flights, a base for NORAD and as part of the Distant Early Warning (DEW) system and Strategic Air Command during the 1950s.

The community of Happy Valley-Goose Bay began to expand in the 1950s, largely due to an increased American presence and investment. Between 1951 and 1958, an extensive building program added additional housing, schools, a hospital, as well as recreational and shopping facilities (Plaice 2002). Happy Valley-Goose Bay became an incorporated community in 1955.

Established as a year-round trading post by Louis Fornel in 1743, North West River is the oldest community in central Labrador. The first wave of settlement in the community began in 1785 and continued until 1835. After establishing a trading post in the community in 1836, the HBC maintained a monopoly on the fur trade that lasted well into the twentieth century (Town of North West River 2007). North West River became an incorporated community in 1958. The population of North West River is 492 (Statistics Canada 2007).

Mud Lake was established in approximately 1850 as a trapping and fishing community. Because there is no road access, travel to and from the community requires traveling across the river by boat in the

summer and over the ice during winter. The current population of Mud Lake is approximately 60 people (NLDNR 2007c), some of whom work in (or out of) Happy Valley-Goose Bay (Saunders, pers. comm.).

Sheshatshiu is an Innu community with Federal Reserve status and with an area of 5.5km^2. Under the *Indian Act*, Federal Reserve Status gives the Band Council the authority to pass land related by-laws for the purposes of law and order, zoning, on-reserve taxation, health, road construction and maintenance (INAC 2007). Like North West River, Sheshatshiu was the site of a fur trading post in the late eighteenth century, although formal settlement did not occur until the mid-1900s. In the early 1960s a number of factors, including the collapse of fur prices, starvation and disease, and requirements for Innu children to attend school, resulted in permanent settlement in the community. Subsequently, this resulted in less use of the interior and an alteration of traditional Innu harvesting patterns (Armitage 1990). Based on Statistics Canada data (2007), the combined population of Sheshatshiu and Mud Lake, is 1,112.

Churchill Falls is a company town established in 1969 to house workers and their families for the Churchill Falls Hydroelectric Project, which remains as the primary economic driver of the community. The population of Churchill Falls is 681 people (Statistics Canada 2007). Most of the community's residents are employees of Churchill Falls (Labrador) Corporation.

The current characteristics of each community are discussed in more detail in the "Socio-economic Baseline Report" (Minaskuat 2008b).

5.3 Hunting and Trapping

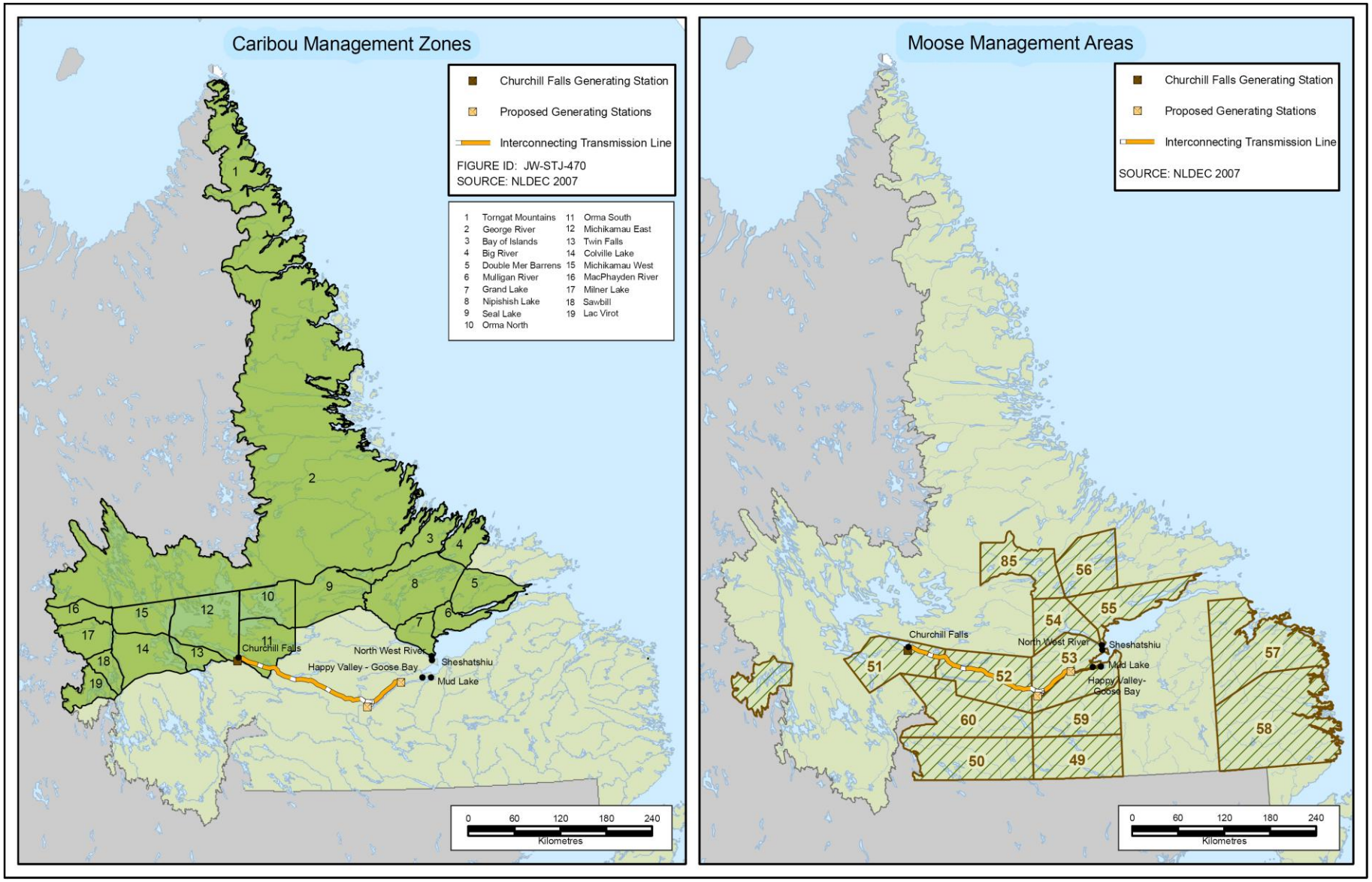
Hunting and trapping are undertaken extensively within the Study Area and both activities are regulated by the Wildlife Division of the NLDEC pursuant to the *Wildlife Act, Wildlife Act Regulations*. The Wildlife Division of the NLDEC is responsible for wildlife regulation and management in Newfoundland and Labrador, including issuing hunting and trapping licenses. The regional office for Labrador is in Happy Valley-Goose Bay while there are district and satellite offices in North West River and Churchill Falls. The hunting of migratory birds is managed by the Government of Canada by the Canadian Wildlife Service, which administers the *Migratory Birds Convention Act* (NLDEC 2007a).

5.3.1 Caribou

Caribou hunting remains the most important cultural and recreational activity for both Aboriginal and non-Aboriginal persons in Labrador and the caribou hunt is the most popular, non-community based (i.e., harvesting centered on short day trips near the community) harvesting activity in the Study Area (F. Phillips, pers. comm.). With a population of approximately 300,000 animals (Couturier et al. 2004), the migratory George River herd is one of the largest barren ground caribou populations in Canada.

There are two Caribou Management Zones in the Study Area: Grand Lake (Area 7) and Orma South (Area 11) (Figure 5-1). Hunting in these areas opens as the caribou migrate and a Resident Labrador Caribou License is required. There are approximately 11,000 caribou licenses issued in Labrador annually. Approximately 9,000 of these are resident licenses, including 1,000 special licenses available to the residents of the Torngat Mountain Electoral District. The remaining licenses are non-resident licenses and are only available through licensed outfitters (B. Howe pers. comm.).

Figure 5-1 Caribou Management Zones and Moose Management Areas, 2007-2008



Non-resident big game hunters must be accompanied by licensed guides, which are supplied by licensed outfitters (NLDEC 2007a). The bag limit for Labrador residents is two caribou (either sex) and licenses are available through Government Service Centres and through licensed vendors (NLDEC 2007a).

In 2004, the Labrador Woodland Caribou Recovery Team released a Recovery Strategy for three woodland caribou herds (*Rangifer tarandus caribou*; Boreal population) in Labrador (Schmelzer et al 2004). This strategy is concerned with the Lac Joseph, Red Wine and Mealy Mountain Caribou Herds, which were designated as "threatened" by the Committee on the Status of Endangered Wildlife in Canada in 2001 and under the *Newfoundland and Labrador Endangered Species Act* on July 31, 2002 (Schmelzer et al 2004). These herds are described as forming a "continuum" across southern Labrador and northeastern Québec and are bordered by the migratory George River Herd. Due to the status of these herds, there are no Caribou Management Zones south of the Lake Melville, Churchill River region (NLDEC 2007a).

5.3.2 Moose

Unlike caribou, moose are a relatively recent arrival to Labrador. Although introduced to Labrador in 1953 near the St. Lewis River, Labrador's moose population likely results from a natural dispersion from Québec. By 1977, the population had grown enough to warrant the establishment of Moose Management Areas (MMAs) (Chubbs and Schaefer 1997). Although the lower Churchill River valley has been identified as a relatively high capability area for moose (i.e. able to sustain densities of wintering moose), moose density in Labrador is low when compared to elsewhere in the North American range (Trimper et al. 1996). Although there are signs of an expanding population, the potential for growth is limited due to illegal harvests, predators, sparse habitat, or a combination of these factors (Chubbs and Schaefer 1997).

There are six MMAs in the Study Area (Figure 5-1) and 115 of Labrador's 185 licenses are issued in these areas. The number of licences available in each area is based on the status of the population as determined through aerial surveys. MMA 55 is located on the north shore of Lake Melville in the vicinity of North West River, MMA 54 bisects Grand Lake, between North West River and Sheshatshiu, MMAs 53 and 53A are in the vicinity of Goose Bay, north and south of the Churchill River respectively. MMA 52 encompasses the Churchill River from Gull Island to the top of Winokapau Lake, and MMA 51 includes the upper portion of the Churchill River up to the Smallwood Reservoir. Gull Island and Muskrat Falls are in MMAs 53 and 53A. An annual draw for resident moose licenses is held by the NLDEC. In 2006 there were 139 applications in MMA 51, 8 applications in MMA 52, 297 applications in MMA 53, 153 applications in MMA 53A, 103 applications in MMA 54 and 108 applications in MMA 55 (NLDEC 2007a).

The hunting season in these areas varies. While the 2007-2008 season in each area opened on September 8, 2007, the closing date varied between January 6, 2008 in Areas 51, 52, and 53 and March 16, 2008 in the other areas. Quotas for the 2007-2008 season are 10 moose in MMA 51, 20 moose in MMA 52, 25 moose in MMA 53, 5 moose in MMA 53A, 30 moose in MMA 54, and 25 moose in MMA 55. There were no quota changes from the 2006-2007 season (NLDEC 2007a).

5.3.3 Black Bear

Black bears are the third type of large game hunted in the Study Area.1,500 licenses per season are available throughout Labrador. There are two Black Bear Management Areas in Labrador: the George River Area and the Labrador South Area. The Study Area is contained within the Labrador South Black Bear Management Area.

There are two separate black bear hunting seasons in Labrador, which vary from year to year. The 2007 spring season extended from April 1 to July 13 in both zones. The 2007 fall season extended from August 10 to November 30 in the George River Area and from September 1 to November 30 in the Labrador South Area (NLDEC 2007a). The bag limit for both residents and non-residents is two animals (either sex). As with caribou, non-resident licenses are only available through one of the Province's licensed outfitters (NLDEC 2007a).

5.3.4 Small Game

There are two established areas for hunting small game in Labrador: the Northern Zone and the Southern Zone. The Study Area is situated entirely within the Southern Zone. Within the two zones, there are Species Management Areas (SMA) with established shooting and snaring seasons for each species. For all species, the shooting season opened on October 1 and closed on April 20, 2008, while the snaring season opened on October 1, 2007 and closed on March 31, 2008 (NLDEC 2007a). Season and bag limits for various species are provided in Table 5-1 and discussed below.

Table 5-1 Small Game Season and Bag Limits

Species	Area	2007 Season (Shooting)	2007 Season (Snaring)	Bag/Possession Limit
Ptarmigan	Labrador	Oct. 1 to April 20	Oct. 1 to March 31	25/50
Grouse	Southern Zone	Oct. 1 to April 20	Oct. 1 to March 31	20/40
	Northern Zone	Oct. 1 to April 20	Oct. 1 to March 31	No Limit
Arctic/Snowshoe Hare	Labrador	Oct. 1 to April 20	Oct. 1 to March 31	No Limit
Porcupine	Labrador	Oct. 1 to March 31	-	1 (possession limit)
Source: NLDEC 2007a				

Both willow and rock ptarmigan are commonly known as partridge in Newfoundland and Labrador. Willow ptarmigan live in the forests around Lake Melville while rock ptarmigan can be found in the drier areas of the northern tundra. Both spruce and dark grouse are also commonly known as partridge and can be found in coniferous or deciduous forests.

The ptarmigan SMA encompasses all of Labrador. The daily bag limit is 25 while the possession limit is 50. The grouse SMA is divided into the Northern and Southern Zone. In the Northern Zone there is no daily or possession limit, while in the Southern Zone the daily bag limit is 20 and the possession limit is 40.

Both the snowshoe and Arctic hare, commonly known as rabbits, are found in Labrador, with the snowshoe hare more widely distributed. Snowshoe hare can be found in boreal forests and, in Labrador, are found everywhere but the extreme north. Arctic hare can be found only in northern areas and north coast barrens (NLDTCR 2007). The SMAs for both the Arctic and snowshoe hare encompass all of Labrador and neither has a daily or possession limit.

The 2007/2008 hunting season was the final year of a pilot project allowing small game hunters to hunt porcupine. The shooting season for porcupine opened on October 1, 2007, and closed on March 31, 2008. The Wildlife Division of NLDEC has asked participating hunters to submit the head or lower jawbone to the NLDNR. This data will be used to determine future game management decisions for the species. Unlike large game, non-resident hunters do not require a guide to hunt small game (NLDEC 2007a).

Approximately 12,000 small game licenses are available in Labrador. This total includes 3,000 youth licenses, 5,000 resident licenses, 2,000 non-resident licenses, and 2,000 special Labrador licenses issued to residents of Torngat Mountains Electoral District. It is not known how many licenses are issued each year (B. Howe pers. comm.).

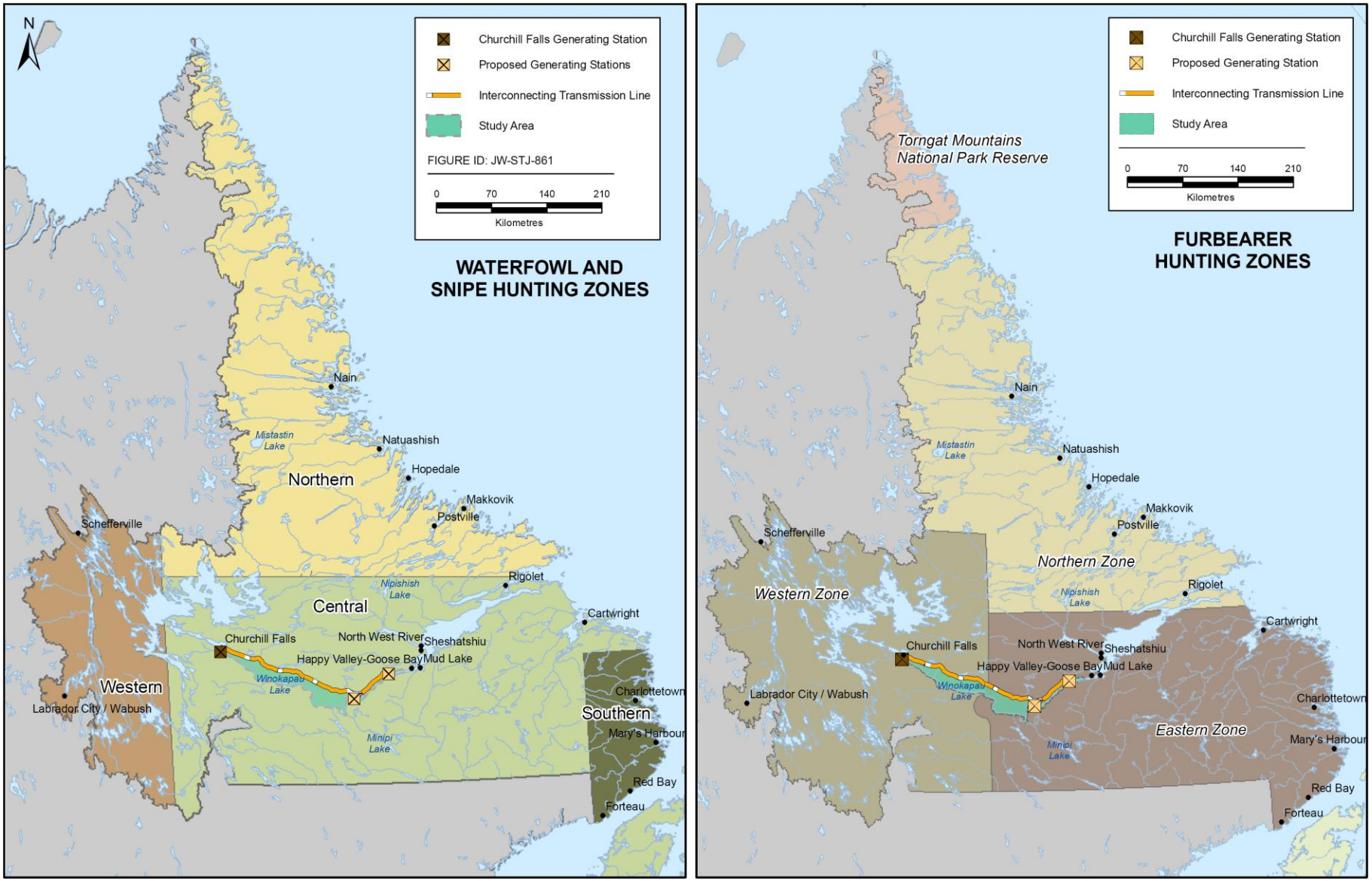
5.3.5 Migratory Birds and Waterfowl

Unlike other wildlife in the Study Area, the hunting of migratory birds is managed for the Government of Canada by the Canadian Wildlife Service, which administers the *Migratory Birds Convention Act* (NLDEC 2007a), including the management of bag limits and licenses. There are four Waterfowl and Snipe Hunting Zones in Labrador: Southern, Central, Northern and Western (Table 5-2) (Figure 5-2). The Study Area is contained entirely within the Central Zone. In central Labrador (the Study Area), there are two seasons. The first opens on the last Saturday in October and closes on the last Saturday in November. The second opens on the first Saturday in January and closes on the last day of February. There is no open season in the Western Zone.

Table 5-2 Migratory Birds: Seasons and Bag Limits

Species	Zones	Season	Bag/Possession Limit
Ducks	Southern	Second Saturday in September - Third Saturday in December	6/12
	Central	First Saturday in September - Second Saturday in December	
	Northern		
	Western		
Eider	Southern	Fourth Saturday in November to last day of February	6/12
	Central	Last Saturday in October to last Saturday in November and first Saturday in January to last day of February	
	Northern	Last Saturday in September to second Saturday in January	
	Western	-	
Geese	Southern	Second Saturday in September - Third Saturday in December	5/10
	Central	First Saturday in September - Second Saturday in December	
	Northern		
	Western		
Snipe	Southern	Second Saturday in September - Third Saturday in December	10/20
	Central	First Saturday in September - Second Saturday in December	
	Northern		
	Western		
Source: CWS 2007			

Figure 5-2 Waterfowl and Snipe Hunting Zones and Furbearer Hunting Zones, 2007-2008



The daily bag limit for ducks, excluding the special status harlequin duck, which cannot be hunted is six and the possession limit is 12. The daily bag limit for geese is five while the possession limit is 10. The daily bag limit for snipe is 10 and the possession limit is 20 (CWS 2007).

5.3.6 Trapping

Labrador is divided into three trapping zones: the Labrador North Fur Zone, the Labrador East Fur Zone, and the Labrador West Fur Zone. Both the Eastern and Western Zones contain portions of the Study Area (Figure 5-2). The 2007/2008 fur harvesting seasons and dates for Labrador were unchanged from the 2006/2007 season (Table 5-3).

Table 5-3 Labrador Trapping Seasons and Zones

Species	Labrador North	Labrador East	Labrador West
Beaver	Oct. 15 to May 31	Oct. 15 to May 31	Oct. 15 to May 31
Ermine	Oct. 15 to March 31	Oct. 15 to March 20	Nov. 1 to March 20
Fox – Coloured	Oct. 15 to March 31	Oct. 15 to March 20	Nov. 1 to March 20
Fox – White	Oct. 15 to May 31	Oct. 15 to March 20	Nov. 1 to March 20
Coyote	Oct. 15 to March 31	Oct. 15 to March 20	Nov. 1 to March 20
Lynx	Oct. 15 to March 31	Oct. 15 to March 20	Nov. 1 to March 20
Marten	Oct. 15 to March 31	Oct. 15 to March 20	Nov. 1 to March 20
Mink	Nov. 1 to March 31	Oct. 15 to March 20	Nov. 1 to March 20
Muskrat	Oct. 15 to May 31	Oct. 15 to May 31	Oct. 15 to May 31
Otter	Oct. 15 to March 31	Oct. 15 to March 20	Oct. 15 to March 20
Squirrel	Oct. 15 to March 31	Oct. 15 to March 20	Nov. 1 to March 20
Wolf	Oct. 15 to April 30	Oct. 25 to April 30	Nov. 1 to March 20
Fisher	No Open Season	No Open Season	No Open Season
Wolverine	No Open Season	No Open Season	No Open Season
Source: NLDEC 2007a			

Furbearers may be taken only by licensed trappers. Trapper education is a pre-requisite of licensing for all beaver and general trappers, with the exception of persons born before September 30th, 1926, who have held a trapping license in at least one year since the 1992/93 season. Licenses are available through the Wildlife Division of NLDEC. The Newfoundland and Labrador Trapper's Association is responsible for the scheduling and delivery of trapper education in Newfoundland and Labrador (NLDEC 2007a).

Trappers usually sell their fur at auction, although some pelts are sold to craft stores or privately to tourists and other residents. Fur auction/agents and buyers active in Labrador include the Fur Harvesters Auction Incorporated, the North American Fur Auction, and Western Canadian Raw Fur Sales. Within the Province, trappers must maintain their own individual records of furs processed for auction. If furs are sold directly to companies, agents or buyers outside of the Province, a Fur Export Permit is required for each individual shipment. Permits are available through NLDNR (NLDEC 2007a).

The number of licensed trappers in Labrador fluctuates based on the price of furs; current NLDEC estimates place the number of trappers at approximately 400. The preferred species is marten, both in terms of number taken and market value (Table 5-4). While there is some trapping for ceremonial value or for meat, the pelts are normally sold, making trapping an almost exclusively commercial activity. At this time, it is not possible to determine the value of trapping in the Study Area because the information collected (Table 5-4) is for all of Labrador (J. Sharpe pers. comm.).

Table 5-4 Number of Furbearers Trapped and Value of Trapping in Labrador

Animal	Number Trapped (Avg. 2002 to 2005)	Value $ (2004/05)	Average Price $ (2004/05)
Black Bear	16	1012.48	63.28
Beaver	151	3790.10	25.10
Coyote	1	31.98	31.98
Red Fox	531	14257.35	26.85
Silver Fox	20	433.40	21.67
Cross Fox	132	5699.76	43.18
Arctic Fox	30	1129.20	37.64
Lynx	67	11670.73	174.19
Marten	3264	187059.84	57.31
Mink	416	5757.44	13.84
Muskrat	431	1297.31	3.01
Otter	130	13367.90	102.83
Squirrel	116	120.64	1.04
Weasel	492	1446.48	2.94
Wolf	33	3998.61	121.17
Total Value		251,073.22	
Source: J. Sharpe pers. comm.			

5.4 Recreational and Commercial Fishing

Fishing in Newfoundland and Labrador is regulated by DFO through the *Newfoundland and Labrador Fisheries Regulations* under the *Fisheries Act*. This regulates fishing activities in inland waters (i.e., waters above low water spring tide or inland of a line marked by notices under the authority of the regional Director General or in the vicinity of the mouth of a river or stream flowing into the sea) (Newfoundland and Labrador Fisheries Regulations).

DFO has seven offices in Labrador (Nain, Makkovik, Rigolet, Happy Valley-Goose Bay, Cartwright, St. Lewis and L'Anse au Loup). These offices are typically staffed by 12 fisheries officers and five River Guardians employed by DFO. There are also 14 River Guardians employed by groups other than DFO, including four employed by Innu Nation. Additionally, provincial authorities have the power to enforce federal regulations (J. Holwell pers. comm.).

Non-residents require the services of an outfitter in order to angle inland waters unless one of the following conditions applies (DFO 2007a):

- angler is accompanied by a direct relative who is a resident
- angler is angling at a cooperative camp, anywhere in the lake or pond on which the camp is located or 800 m above or below the camp, but must be accompanied by a licensed guide or direct relative
- non-scheduled waters within 800 m of a provincial highway or
- within 800 m above or below a bridge on a provincial highway, but must be accompanied by a licensed guide or direct relative

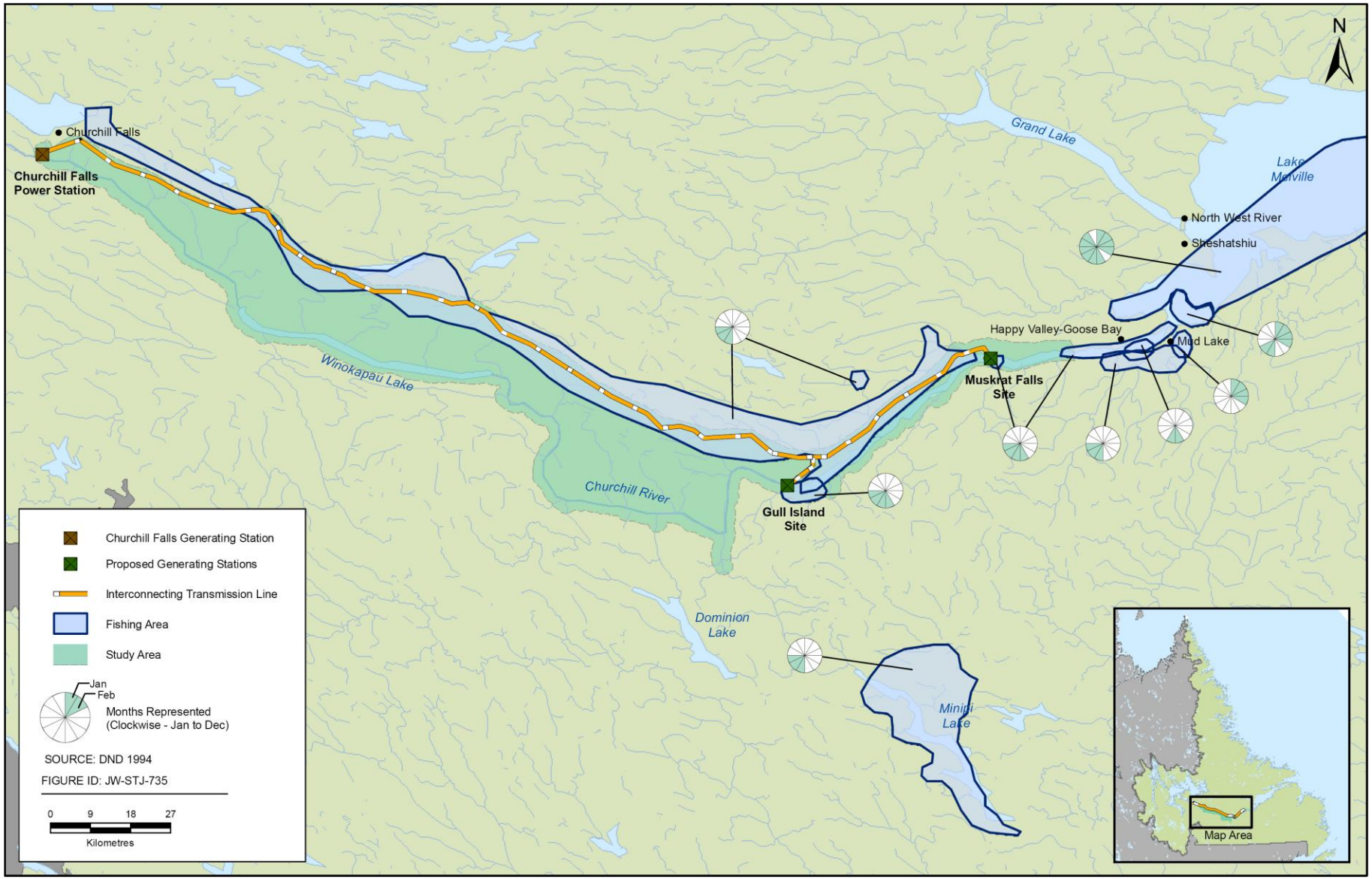
Under the Newfoundland and Labrador *Fishery Regulations*, and subject to some limitations on net use and composition, the Innu may catch and take fish for food at any time in inland waters by means of nets, traps or spears as long as fish are not sold or used for any commercial purpose (Newfoundland and Labrador *Fishery Regulations* 10(4)). The DFO and Innu Nation have established a co-

management agreement for net fisheries. These agreements set annual harvest limits and manage season and gear restrictions (J. Holwell pers. comm.).

Since 2000 a licenced food fishery for Labrador residents has been in place in Lake Melville. Although the fishery is primarily for trout and charr, with a maximum catch of 50 fish, residents may retain a maximum of four salmon as by-catch (DFO 2007b). One license is issued per household. While commercial trout licenses are available in the Lake Melville area, none are currently in use (J. Holwell pers. comm.).

Ice fishing is a popular activity in Lake Melville, particularly near Partridge Island and Sandy Point Channel, as well as the area between Mulligan River and North West River (Figure 5-3). These areas are outside the Study Area. The ice fishing season lasts from October to May and fish taken during this time include trout, smelt and rock cod. Although precise data are not available, more fish appear to be taken during the ice fishing season, than during the remainder of the year (J. Holwell, pers. comm.).

Figure 5-3 Fishing Areas within the Lower Churchill River Watershed



5.4.1 Trout

For the purposes of trout management, Labrador is divided into five angling zones; Angling Zones 4 and 5 are within the Study Area. (Figure 5-4) On February 21, 2007, DFO announced that new management measures for inland waters in Labrador were in effect. These measures included a new minimum size limit of 60 cm for lake trout for the Churchill Drainage Basin-Smallwood Reservoir watershed. (DFO 2007c).

The measures also set a new bag and possession limit for lake trout in Labrador. The new limit in Angling Zones 3, 4, 5 and 6 is set at three fish per day. The seasons extend from March 1 to September 7 for Angling Zone 3, February 1 to September 7 for Angling Zone 4, and February 1 to September 15 for Angling Zones 5 and 6 (DFO 2007c).

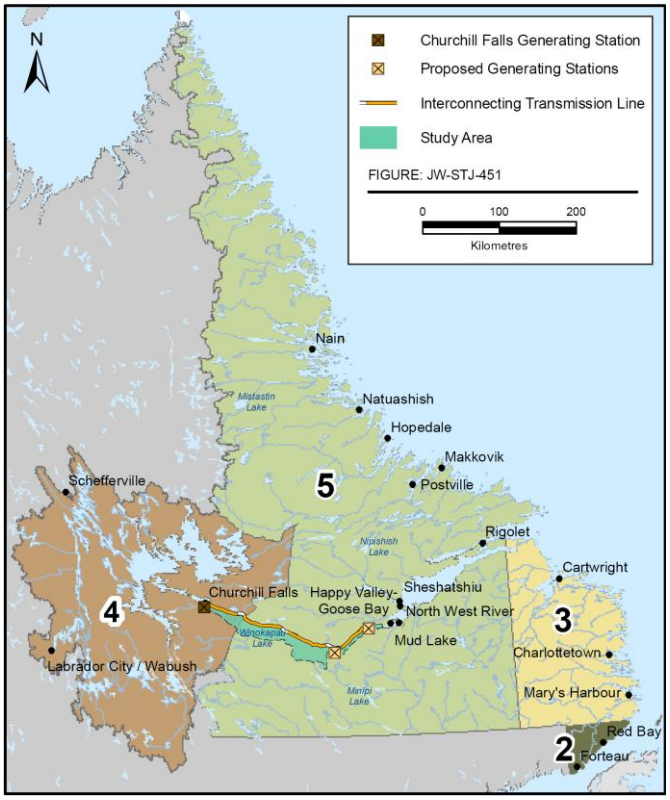


Figure 5-4 Angling Zones

5.4.2 Atlantic Salmon

There are 14 salmon fishing zones (SFZs) in Newfoundland and Labrador, three of which are in Labrador (SFZs 14B, 2, and 1). Areas south of Lake Melville are in SFZ 2 while areas north of Lake Melville are in SFZ 1. SFZ 14B is completely outside the Study Area (DFO 2007a). The season in SFZ 1 and 2 is open from June 15 to September 15.

The 2006 Stock Assessment of Newfoundland and Labrador Atlantic Salmon (DFO 2007d) indicates that in all three Labrador zones, returns of both small and large salmon had decreased since 2005 and returns of large salmon are lower than they were prior to the closure of the commercial fishery. In SFZ 1, only English River has met or exceeded conservation requirements in one of the past eight years. In SFZ 2, Sand Hill River, Muddy Bay Brook and Southwest Brook are identified as having exceeded conservation requirements (DFO 2006, 2007c). There are no scheduled salmon rivers in the Study Area (DFO 2007b). For the purposes of retaining salmon, all non-scheduled rivers are designated as Class III with a seasonal bag limit of two fish (Table 5-5).

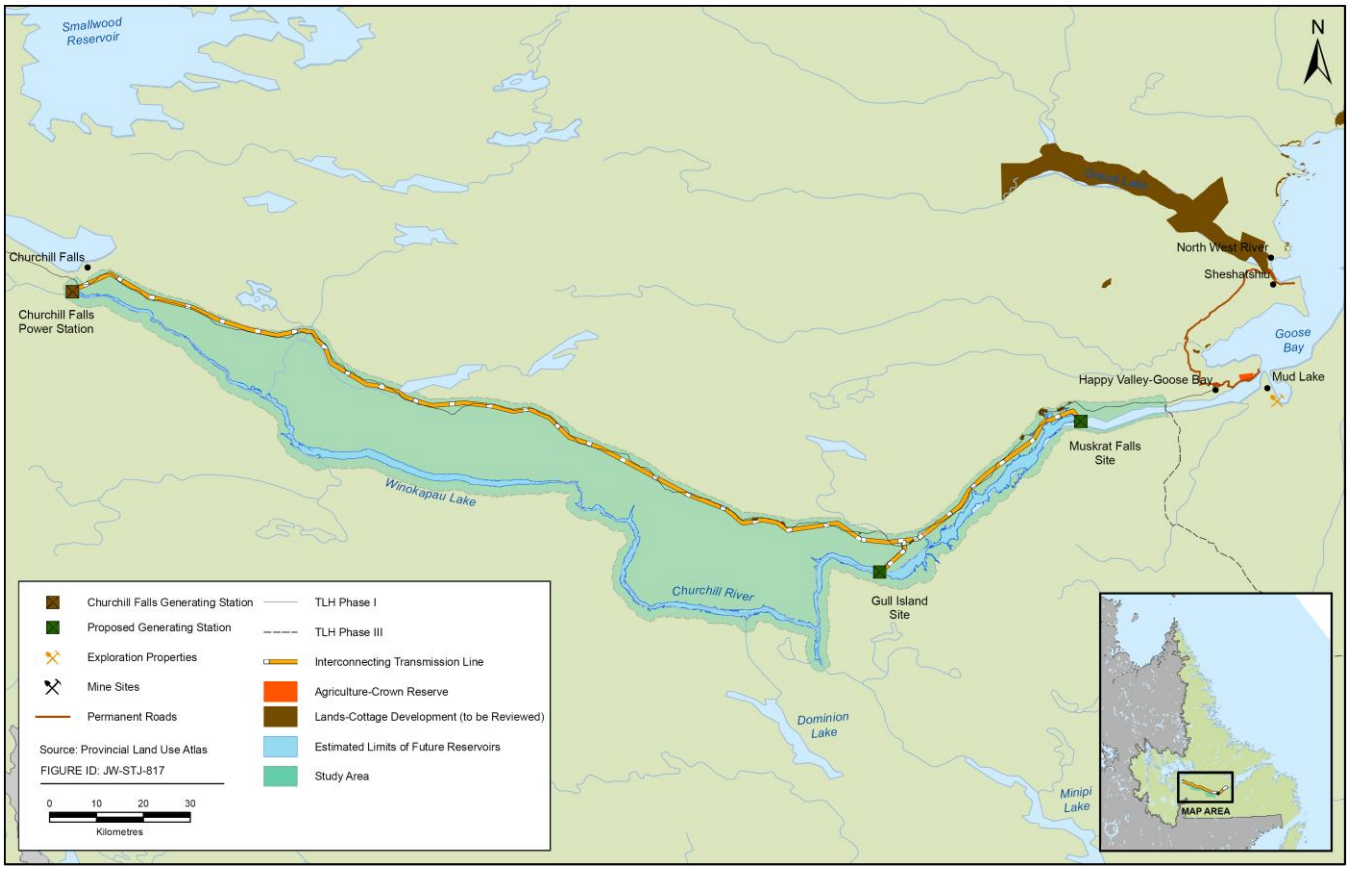
Table 5-5 Seasonal Bag Limit by River Classification

River Classification	Bag Limit
Class I Rivers	Six Fish
Class II Rivers	Four Fish
Class III Rivers	Two Fish
Class IV Rivers	Catch and Release Only
Source: DF0 2007a	

5.5 Other Recreational Activity

Lands available for cabins and cottages in Newfoundland and Labrador are managed by the NLDEC, Lands Division. The types of licenses and grants issued by the department include Remote Recreational Cottage Licenses and Recreational Cottage Grants. The former are available where no land-use conflict exists and where no Crown Timber License is in place, while Recreational Cottage Grants are available where no land use conflict exists or in areas that have been designated by the Lands Branch for recreational cottage development. In both cases, a completed Crown Land Application Form must be filed with the Regional Lands Office nearest to the land applied for and licenses are only available to permanent residents of Newfoundland and Labrador (NLDEC 2007b) (Figure 5-5).

Figure 5-5 Agriculture – Crown Reserve & Cottage Development Areas



In addition to recreational resource harvesting activities and cabins, the lower Churchill River area is used for snowmobiling, skiing, boating and hiking. The Government of Newfoundland and Labrador has legislated mandatory trail passes for snowmobile riders in Labrador. The revenue from these passes is used for the maintenance and operations of the trail system. The cost of the trail pass is $114.00 (tax included) per sled (Labrador Winter Trails 2006). Boating, including canoeing and kayaking, is a common recreational activity in the Study Area. Companies provide both guided and custom boating tours on the Churchill River, its tributaries, and Lake Melville. Equipment rentals are also available to both private individuals and corporate clients (Lake Melville Tourism Association pers. comm.).

5.6 Parks, Reserves and Special Areas

Parks, reserves and special areas include both existing and candidate Provincial and National Parks and park reserve areas. Other areas of ecological or environmental sensitivity and importance are also included where relevant.

5.6.1 Parks and Reserves

There are no known or proposed parks or reserves in the Study Area. The closest provincial park is the Grand Lake Provincial Park Reserve, which is adjacent to the Study Area. It is 15.05 km² in size and protects a portion of forested land between North West River and Happy Valley-Goose Bay.

The closest proposed national park is for the Mealy Mountains. The area is currently the focus of a feasibility study that was initiated in 2003. In April 2008, the Steering Committee on the proposed park met after a two year hiatus. Following this meeting, on May 6, 2008 the Committee reached agreement on the boundaries of the proposed park, however these boundaries have not yet been made public (PAA 2008).

There are two sites in the Study Area that were identified under the 1970s era International Biological Program (IBP). These sites were chosen based on the present of Oxalis and sand dunes. However, the IBP has not been active since the mid 1970s and the identified sites have not been designated as protected sites (Northland Associates 1979).

5.6.2 Ashkui

Ashkui, or “open water”, are areas of early or permanent open water on rivers, lakes and estuaries and are often sites of contemporary Innu family camps and tend to occur at the confluences of rivers. In the Study Area they are known to exist at the mouths of Cache River and Pinus River and at Muskrat Falls. Oral history and archeological evidence suggest that this has been the case for several generations. Ashkui are also important habitats for migratory birds, fish and other animals (Environment Canada 2002). Concentrations of fish and wildlife can be found at the sites due to the presence of light and open water. Ashkui have been described by the Innu as “supermarkets and pharmacies”. For the Innu, the importance of the ashkui is in the overall relationship between the site and the surrounding environment (Gorsebrook Research Institute 2001). Ashkui have special importance in the spring, but appear to have limited importance during the rest of the year (Environment Canada 2002).

The 2000 Ashkui Research Project, which brought together representatives from Innu Nation, Newfoundland and Labrador Hydro, Environment Canada and the Gorsebrook Research Institute, identified ashkui at Sheshatshiu and Muskrat Falls. Other ashkui within the Study Area have been identified and are listed as sites under the Canada-Newfoundland Water Quality Monitoring Agreement, which monitors water quality throughout the Province. These sites are at Cache River, North West River and on the Pinus River (Environment Canada 2007).

5.7 Outfitting Operations

Outfitting activities in Newfoundland and Labrador are regulated by the *Guides Regulations* under the *Wildlife Act*. In order to apply for registration as a guide, a person must provide proof of a successful completion of a recognized firearm safety and hunter education course, successful completion of a

recognized boating safety course, a valid first aid certificate, and successful completion of a recognized guide training program. Guiding without a license or acting as a guide to any un-licensed hunter or angler is an offence under both the *Wildlife Act* and *Newfoundland and Labrador Fishery Regulations.*

In Labrador, large game hunting and salmon angling both require the services of a registered guide for non-residents. The 2007 Hunting and Fishing Guide lists 45 outfitters and guides active in Labrador (NLDTCR 2007). There are no registered outfitters active in the Study Area. The nearest such outfitter uses the Minipi River up to the Minipi Rapids, which is outside the Study Area (R. Cooper pers. comm.). While there appear to be no registered outfitters active in the Study Area, there are registered guides. However, information on the number of guides in the area is not currently available.

5.8 Agriculture

Agriculture in Newfoundland and Labrador is managed by NLDNR. In 2007, the Government of Newfoundland and Labrador established the Forestry and Agrifoods Agency with a mandate to identify emerging opportunities and strategies in consultation with industry stakeholders (NLDNR 2007b).

The Lake Melville area and Churchill River valley is a High Boreal Forest ecoregion composed of two distinct areas: the river valley and the coastal plain around Lake Melville. The region has the most favourable climate in Labrador with warmer summers and shorter, less severe winters. The total growing season is 120 to 140 days and there are approximately 80 frost-free days annually (NLDNR 2007c).

Central Labrador has large areas of land that have been identified as suitable for agricultural development with communities such as North West River growing potatoes, carrots, turnips and peas for domestic use. Supplemental farming has been encouraged in Labrador since the mid 1950s and there have been several efforts at encouraging agricultural activities (NLDNR and NLDLAA 2004).

In 2004, the Government of Newfoundland and Labrador issued a Northern Agrifoods Development Strategy with an emphasis on the economic potential of agrifoods development in Labrador (NLDNR and NLDLAA 2004). This strategy has been allocated $1.5 million under the Agricultural Policy Framework (APF) to encourage the development and commercialization of the agrifoods industry in Labrador. Notable projects to date include carrot research trials in southern Labrador and potato research trials in Happy Valley-Goose Bay (NLDNR 2007b).

Agricultural Crown Reserves within the Study Area are shown in Figure 5-5.

5.9 Forestry

Forest harvesting in Newfoundland and Labrador is managed by the Department of Natural Resources, with some elements, including promotion and opportunity identification, managed through the Forestry and Agrifoods Agency. Forest harvesting is managed pursuant to the *Forestry Act* and supporting regulations. Forest management considers the ecosystem generally, including land, wildlife and water resources, as well as the management and sustainability of the Province's forest resources.

In Labrador, these activities are managed through a regional office in Happy Valley-Goose Bay, with support from District Offices in North West River, Cartwright, and Wabush. There are also satellite offices throughout the area.

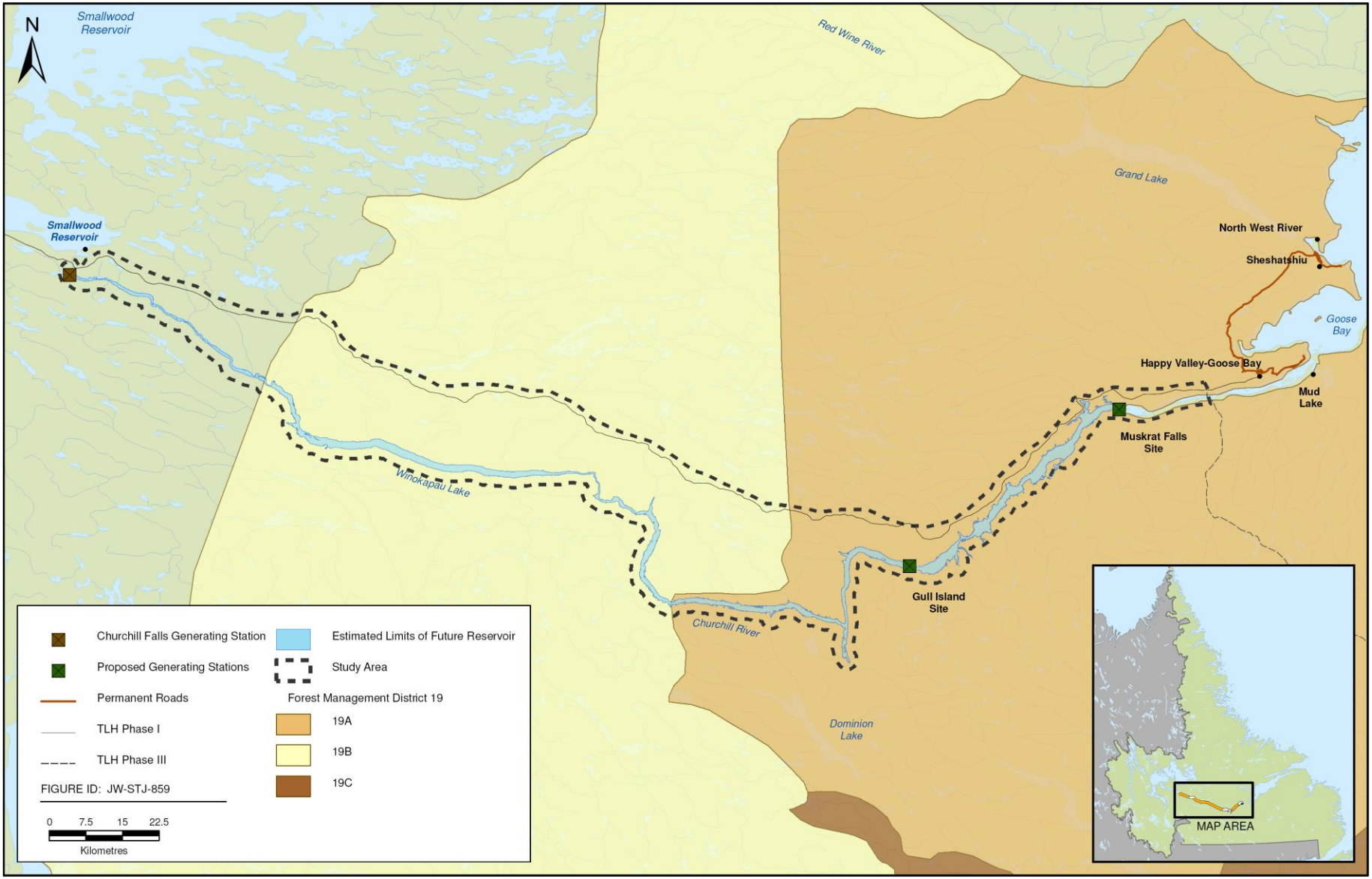
Labrador is divided into eight FMDs. Three FMDs (19A, 19B and 22) overlap the Study Area. FMDs 19A and 19B are the centre of forestry-related activity in Labrador and the recent focus of a Forest Development Strategy (Halifax Global Management Consultants 2006). Combined, FMD 19 is 7.1 million ha in size and FMD 19A, which has the highest concentration of high boreal forest, is 2.3 million ha in size; it is described as a heavy-moderately stocked spruce forest (Figure 5-6).

Forest Management District 19 is dominated by black spruce, which encompasses approximately 91 percent of productive forest area. Balsam fir constitutes 5 percent of the area, while other softwoods and hardwoods make up the balance (Newfoundland and Labrador Forest Resources and Agrifoods 2003). The total allowable annual cut in FMD 19 is 200,000 m^3. More than 66 percent of this resource (142,000 m^3) lies south of the Churchill River and will not be fully accessible until completion of Phase III of the TLH. NLDNR has issued an Expression of Interest to maximize the commercial development of these and other resources in the district (T. Schlossek pers. comm.). There is a possibility that the completion of the TLH may result in an increase in the allowable cut due to improved inventories in this previously inaccessible area (Halifax Global Management Consultants 2006).

On January 30, 2001, the Government of Newfoundland and Labrador and Innu Nation signed a Forest Process Agreement in order to facilitate effective communication, information sharing, and issue resolution on management, sustainable development and ecosystem management for FMD 19 (Newfoundland and Labrador Department of Forest Resources and Agrifoods 2003). Further development and secondary processing related to Labrador's forest resources, including the completion of sustainable forest management plans for all FMDs and implementation of the *Strategic Plan to Develop Labrador Secondary Manufacturing and Value Added Wood Products Industry*, are elements of Newfoundland and Labrador's *Northern Strategic Plan for Labrador* (NLDLAA 2007).

In 2007, NLDNR registered a new Five-Year Operating Plan for FMD 19A, covering the period from 2008 to 2012. On January 10, 2008 the Plan received conditional release from the environmental assessment process (NLDEC 2008). The Plan includes considerations related to the development of the lower Churchill River for hydroelectricity. Specifically, the Plan considers requirements for reservoir clearing and preparation. In the event that clearing begins during the period covered, the Plan will be temporarily modified and harvesting efforts will be focused in the reservoir (NLDNR 2007a). Conditions of release included consultation between NLDNR and the Wildlife Division (NLDEC) regarding protection of rare or endangered plant species, and preparation and submission of an annual progress report by NLDNR. This Plan has been temporarily withdrawn from the environmental assessment process to allow for further stakeholder consultation.

Figure 5-6 Labrador Forest Management Districts



5.10 Mining and Mineral Exploration

Mining and mineral exploration in Newfoundland and Labrador is governed by the *Mining Act* and *Mining Regulations, Mineral Holdings Impost Act and Mineral Holdings Impost Regulations, Quarry Materials Act, Quarry Materials Regulations, Undeveloped Mineral Areas Act* and *Undeveloped Mineral Areas Order.* The Mines Branch of the NLDNR is responsible for the supervision, control and direction of all matters relating to mines, minerals, quarries and quarry materials.

5.10.1 Mineral Rights

Mineral rights in Newfoundland and Labrador are governed by the *Mineral Act, Mineral Act Regulations and Quarry Mineral Act.* Under the *Mineral Act Regulations,* the holder of a Staked License has the exclusive right to explore for minerals in, on or under the area of land described in the license for a period of five years from the date of issue. A license only grants a licensee the right to remove minerals with potential for the purpose of sampling, assaying and testing. Up to three, five-year extensions may be granted. Once a license has been held for a minimum of three years, and assuming the licensee has fulfilled all the obligations under that license, subsequently an application can be made for a Mineral Lease for a period not exceeding 25 years.

A Mineral Lease provides the Lessee with the right to develop and extract the minerals described in the Lease. Additional rights and obligations of the Lessee are outlined in the *Mining Act*, and related regulations and guidelines, which govern the development and operations of areas under lease.

Under the *Quarry Mineral Act, 1998* the Province can grant exploration licenses to allow license holders to explore for quarry material. Quarry Permits issued under the *Quarry Mineral Act* allow for the removal of quarry materials for a period of one year. Permits are non-renewable. A Quarry Lease provides the holder with the same rights as a permit, but is valid for 20 years and requires more detailed surveys and a development plan for the site.

6.0 CURRENT LAND AND RESOURCE USE PATTERNS

Land use in the Study Area by Innu and other Aboriginal and non-Aboriginal persons is deeply rooted in the history of the Study Area. Hunting, fishing, and trapping all occur within the Study Area to some degree and snowmobiling and boating are often undertaken in support of these harvesting activities, as well as for recreational and transportation purposes. The following sections provide a description of current land and resource use patterns within the Study Area. To the extent possible, land and resource use have been defined both geographically and temporally in relation to the Study Area.

As outlined in Section 3, the description of Innu land and resource use patterns is based on a comprehensive literature search related to Innu land and resource use within the Study Area, and within Labrador generally. The Study Team was not granted access to collect primary data on the land and resource use patterns of the Innu. Current land and resource use by the Innu, specifically the Sheshatshiu Innu, is based on the most recently available published and un-published information and, in some cases, describes patterns ten or more years ago. Information related to the land and resource use patterns by other Aboriginal and non-aboriginals people is based on a literature review and interviews, as described in Section 3.2.

6.1 The Innu

6.1.1 Historic Patterns of Use and Occupation

Historically, the Innu camped throughout the Labrador interior, with rivers used both as transportation and important harvesting areas (IEDE/JWEL 1998). Tributary river basins throughout Labrador, which historically included the Churchill River, were main Innu travel routes between the coast and the interior (Griffiths 2001). Mailhot (1997) notes that the Sheshatshiu Innu have actively undertaken a program of returning to traditional activities during part of the year and see the interior of Labrador, and not the Lake Melville area, as their true homeland. Armitage (1990) identifies Innu harvesting activities as "highly integrated" and states that activity may shift rapidly, depending on the circumstances. This need for mobility and flexibility is integral to Innu land use patterns and underscores their connection to the land as a whole, even for areas that are used infrequently (Samson 2003).

Mailhot (1997) notes that the system of individual hunting territories present in other Aboriginal groups such as the James Bay Cree, Algonquin, and Ojibwa did not develop in the Lake Melville Region. Rather, Mailhot (1997) has determined that territorial rights are held collectively and that mobility is an "integral part of their mode of land use." Within the greater national territory, defined by Mailhot (1997) as about two-thirds of the Québec–Labrador Peninsula, the Sheshatshiu territory was defined as generally consisting of the Lake Melville Area and its tributary river basins, from the mouth of the river to its source in the interior.

Tanner (1978) sub-divided the North West River/Sheshatshiu Innu into five groups based on the traditional areas used by each group. These areas are: Eagle Plateau (concentrated in the Eagle Plateau/Mealy Mountain area up to the south side of Lake Melville, including Muskrat Falls), Little Mecatina (the central area of the Churchill River, including Gull Island and Minipi Lake), Atikonak (the Upper Churchill Falls area, including Winokapau Lake), Michikamau (includes Churchill Falls and the Smallwood Reservoir) and Upper Naskapi (southern boundary of this region follows the route of the TLH). These areas were defined over a series of time periods beginning in 1900 and ending in 1976.

Each of these subdivisions overlap with the Study Area to some extent and land and resource use within these areas was described as “fluid” (Tanner 1978).

6.1.2 Current Patterns of Use and Occupation

In the post-settlement era (post-1960), land use patterns among the Sheshatshiu Innu began to change as more families, particularly women and children, stayed in the community so that children could attend school. During this period, the pattern of establishing summer camps on Hamilton Inlet (Lake Melville) came to an end. Trapping and hunting took place at a reduced rate and was concentrated in the Kenamu River, Traverspine River, Kenamich River, Carter Basin, and the Mealy Mountains (Armitage and Stopp 2003). Contemporary Innu land use now takes place from a base in the community and travel patterns into the interior have changed with planes, power boats and snowmobiles replacing canoes and walking as the primary modes of transportation (MacLaren Plansearch 1994). Stopp (2002) states that the introduction of these motorized modes of transportation had a considerable impact on Innu land use, resulting in fewer and shorter trips into the interior.

For the Sheshatshiu Innu, current land use activity continues to be centered in the same areas used prior to settlement. This includes the Eagle River (Nutapineuaniu-shipu) and its tributaries of Enakapeshakamau, Eshkanat katshipukutiniht, Kamishikamat, Iatuekupau, Mashku-Nipi, Mishtashini, Nekanakau, Pepauakamau, Tshishkuepeu-nipi, and Uapanatsheu-nipi (Armitage and Stopp, 2003). Armitage and Stopp (2003) described these areas as the core land use area for the Innu and state that Innu land use in the area of the Churchill River is less intense than in the Eagle River Plateau. Moreover, a community consultation with the Innu on the development of lower Churchill River indicated that Innu use of the river had seriously declined since the original Churchill Falls Development in the 1960s due to its perceived impacts on fish and wildlife in the river valley (Griffiths 2001).

Armitage (1989) identified two elements of Innu harvesting: country-based and community-based. Community based harvesting occurs within the immediate vicinity of the community. Hunting, trapping, fishing and gathering of wild fruits continues but not with the same level of productivity as country based harvesting. Armitage also states that the difference in productivity may result from the area not having the wildlife resources required to make an intensive effort worthwhile. Community-based harvesting remains an important element of Innu land and resource use. Areas of importance for community-based harvest activities identified by Armitage (1990) include North West Point (Uhuniau), Grand Lake (Kakatshu-utshishtun), “Four Mile” Road (above the North West River/Sheshatshiu community dump), Rabbit Island (Uapushink), Sebaskachu Bay (Shapeshkashiu-shipu), and the mouth of the Kenemu River (Tshenuamiu-shipu). These areas are outside the Study Area.

The Innu use the TLH Phase I between Happy Valley-Goose Bay and Churchill Falls for the opportunistic harvesting of caribou, porcupine, beaver, ptarmigan and other species. Innu camps have been established along the road, specifically at the TLH/Twin Falls Road junction, Wilson Lake (Kakauakamat), Pope’s Hill, Gull Island, “Mile 41” near Edward’s Brook (Etuat-shipiss), and Grand Lake Road. Between 1990 and 2002, 34 camps were established along the TLH and Esker Road and during this period, the number of road-based camps began to exceed the number of remote camps (Armitage and Stopp 2003). The number of remote Innu camps has declined since 1990, while the number of camps along Phase I of the TLH and Esker Road has increased (see Table 6-1).This demonstrates the growing importance of the road corridor to Innu harvesting practices. Armitage (1990) states that the

Sheshatshiu Innu make frequent trips along the Churchill Road (i.e., TLH) and to the area of Grand Lake to harvest fish, migratory waterfowl, and both large and small game.

Table 6-1 Innu Camp Locations from Sheshatshiu Innu Band Council Outpost Program Records

Year/Season	No. of Remote Camps	No. of Camps Along TLH and Esker Road	No. of Camps Along Other Roads	Total Camps
2002 Spring	4	6	0	10
2001 Spring	4	10	0	14
2000 Spring	9	8	0	17
1999 Spring	9	3	0	12
1998 Spring	8	9	0	17
1997 Fall	7	0	0	7
1997 Spring	12	0	0	12
1996 Spring	14	0	0	14
1995 Fall	1	6	1	8
1995 Spring	14	0	0	14
1994 Spring	9	1	0	10
1993 Fall	10	0	0	10
1993 Spring	13	0	0	13
1991 Spring	7	0	0	7
1990 Spring	8	0	0	8
Source: Armitage and Stopp 2003				

At least 12 cabins owned by the Sheshatshiu Innu have been identified at Esker, Simms River, Churchill Falls, Wilson River, Edward's Brook, Grand Lake road and "Four Mile" road. This is in addition to an estimated 12 cabins at North West Point (Uhuniau), Mud Lake (Mutnek) and Grand Lake (Kakatshu-utshishtun). Armitage and Stopp (2003) describe these cabins as a replacement for the "post-contact traditional" canvas tent. The number of cabins built by the residents of Sheshatshiu within the Study Area has not been confirmed.

Two other core harvesting areas are identified by Armitage and Stopp (2003). The first is defined by Winokapau Lake (Uinukupau) in the south, the Smallwood Reservoir in the west, Seal Lake (Atshuku-nipi) in the north, and Nipishish Lake (Nipississ) in the east. Land use in this area appears to be concentrated in the north with the area between Seal and Snegamook Lake identified as an area of intense activity by several sources (Figures 6-1 to 6-6). The second is an area centered on three lakes: Shipiskan Lake (Ashuapamatikuan), Snegamook Lake (Ashtunekamuk), and Shapio Lake (Shapeiau). Land use within the Study Area (i.e., along the TLH and secondary roads between Happy Valley-Goose Bay and Western Labrador) is identified as supplemental. Within these large territories, the Eagle Plateau, the eastern Michikamau Lake (Meshikamau) region, and the Snegamook Lake (Ashtunekamuk) region, are areas have been previously identified as particularly important (Armitage 1990). With the exception of the areas bordering on the Study Area near Winokapau Lake, these areas are outside the Study Area. The harvesting areas and species harvested in each area are summarized in Table 6-2. A more detailed discussion of harvesting effort by species and location is found below.

Figure 6-1 Land and Resource Use In-Country Harvesting Locations for Sheshatshiu Innu, 1997

Figure 6-2 Sheshatshiu Innu Harvesting Areas (1979-1987): Caribou, Moose and Black Bear

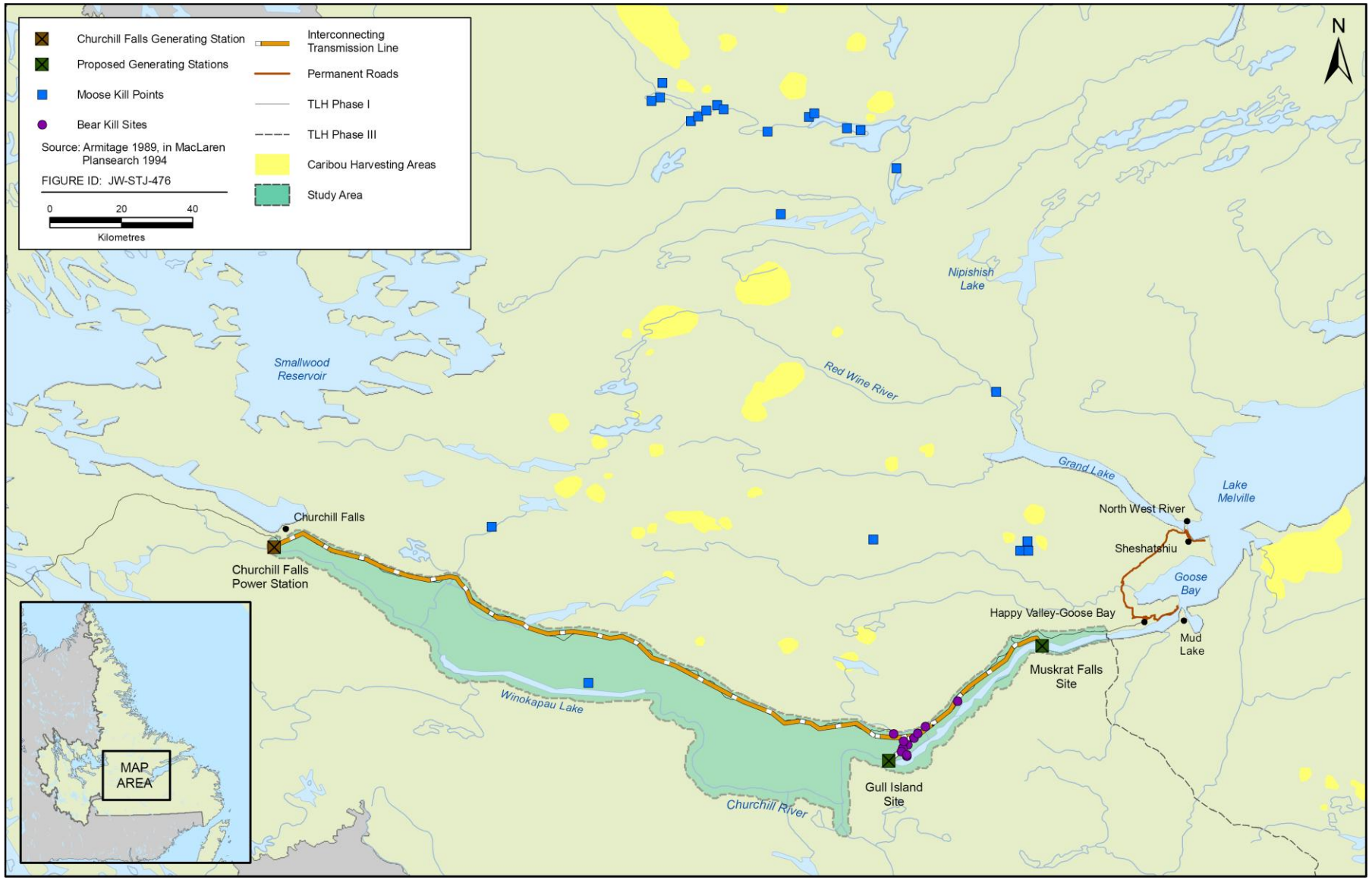


Figure 6-3 Sheshatshiu Innu Harvesting Areas (1979-1987): Fish and Small Game

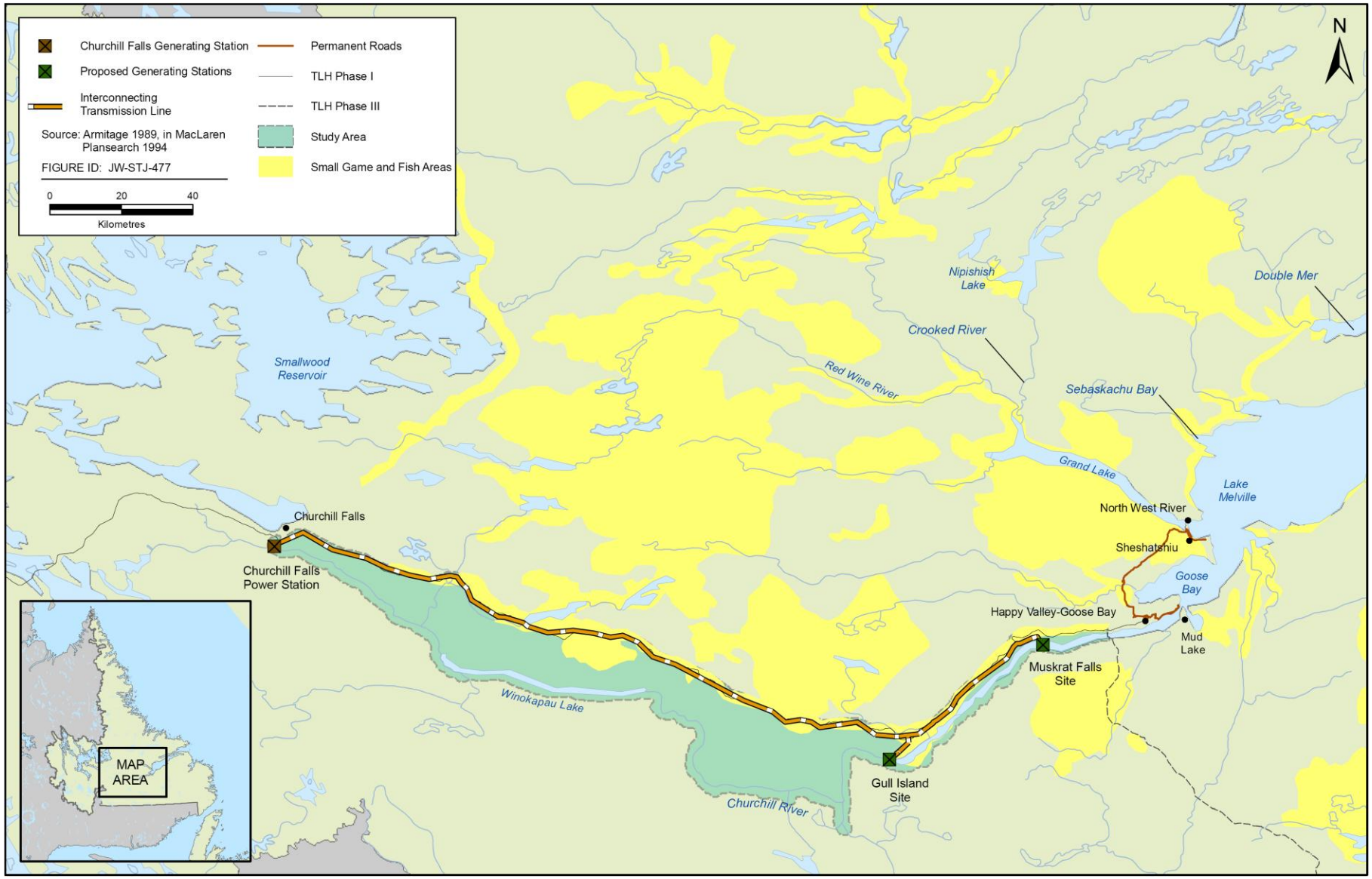


Figure 6-4 Sheshatshiu Innu Harvesting Areas (1979-1987): Furbearer Trapping Areas

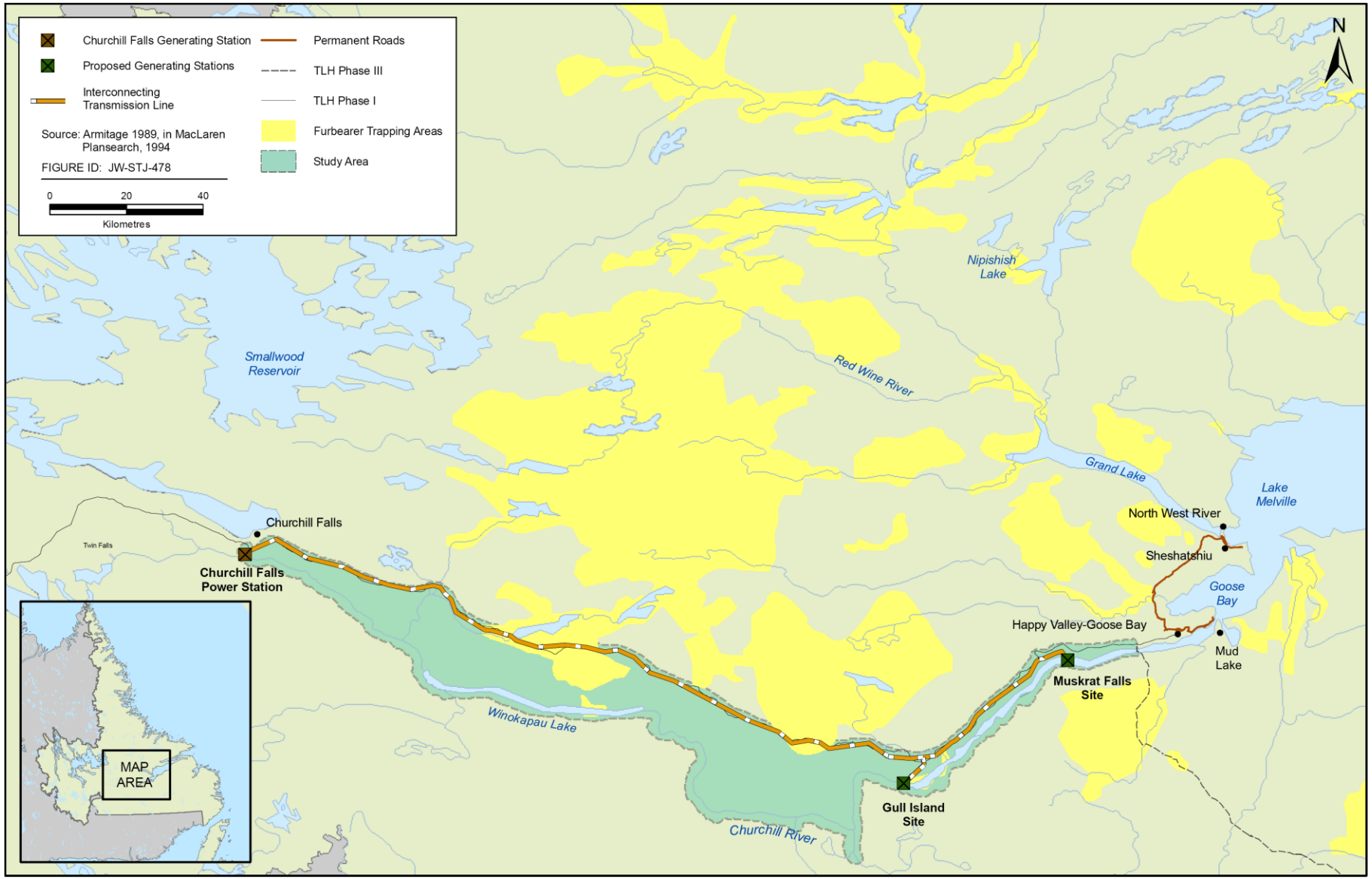


Figure 6-5 Sheshatshiu Innu Harvesting Areas (1979-1987): Migratory Waterfowl

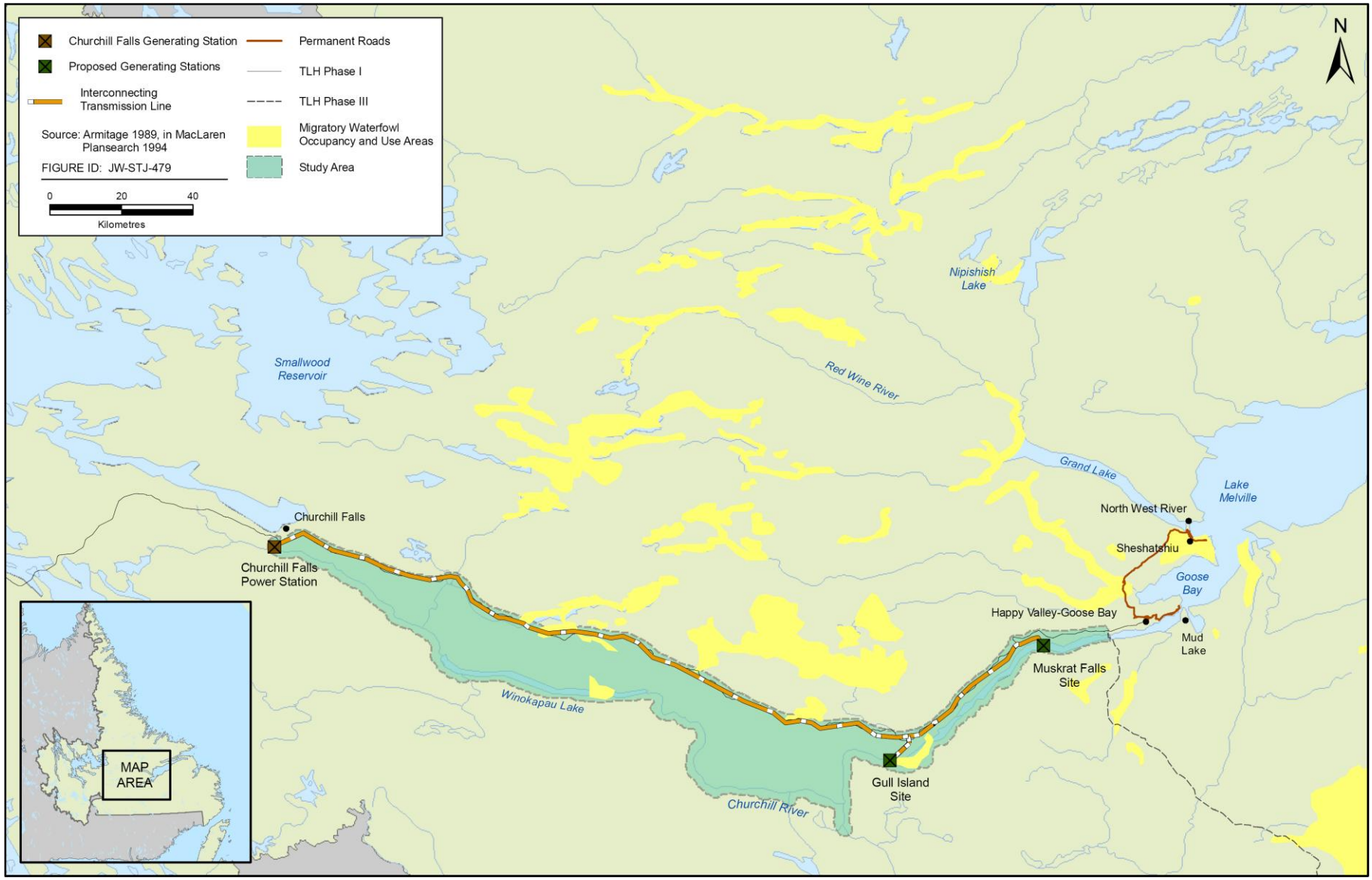


Figure 6-6 Sheshatshiu Innu Harvesting (1979-1987): Wild Fruit Gathering Areas

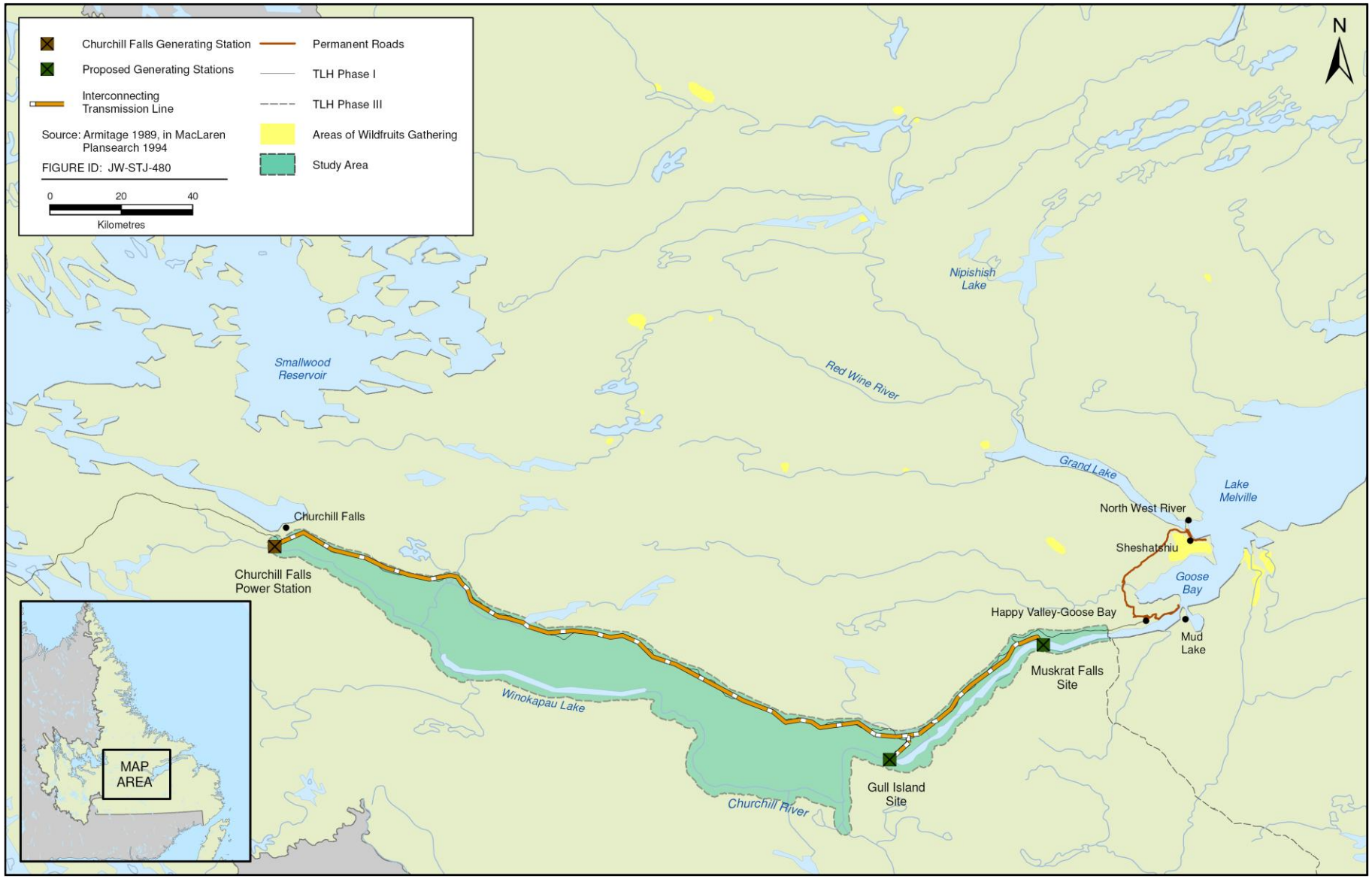


Table 6-2 Areas and Species Harvested by Sheshatshiu Innu, 1979-1987

Area	Species
Southern Shores of Lake Melville* and the Mealy Mountains	Caribou, bear, small game, fish
Cache River watershed* and areas north of the Pinus River	Caribou, bear, small game, fish
Areas around Disappointment and Hope Lakes and the Metchin River System*	Caribou, bear, moose, small game, waterfowl, fish
Areas north of Crystal Falls on the Goose River	Caribou, bear
Lower headwaters of the Red Wine River in the Red Wine Lake region and in the Red Wine Mountains north of Ptarmigan Lake	Caribou (Traditionally Red Wine Herd), bear, waterfowl
Lakes and tributaries of the lower Naskaupi River, including the North Pole and Salmon Lakes and Wapustan and Thomas Rivers	Caribou, bear, waterfowl, small game, fish
Seal, Wuchusk and Namaycush Lakes	Bear, moose
Shipiskan Lake and the Kanairiktok River to Snegamook lake	Bear, moose
Area north of Shipiskan lake and east of South Shipiskan River, including the various tributaries of the Harp, Mistinippi and Shapio Lakes	Caribou, fish, small game
Lower Cape Caribou River and its tributaries*	Caribou, moose, fish, waterfowl, furbearers
Lands between Grand Lake and the Sebaskachu River	Caribou, bear
Lands between the Susan and Bear rivers, west of Porcupine Hill	Caribou
Naskaupi River, including the watersheds of the Wachusk, Seal, Pocket Knife, Salmon, Portage, Namaycush and North Pole lakes	Small game, fish, furbearers
North shore of Lake Melville to Mulligan Bay including the Grand Lake, Sebaskachu and Mulligan Rivers	Small game, fish
Sandy Point near Sheshatshiu*	Small game, waterfowl, fish
Lake system west of Double Mer and south of the Lewis and Ghost Lakes	Small game, fish
Susan and Beaver River systems	Waterfowl, small game, furbearers, fish
Camps on the Kenamu River and North West point, nets are placed between Little lake and Grand Lake*	Fish
North West point, along Grand Lake Road west of Gosling Lake, along the North West River and the marches behind Sheshatshiu	Berries
North of Snegamook Lake, lands at Ashuapan, Lake Mistasin, Shipiskan lake, Sango Pond and Flowers Bay	Fish, furbearers and small game
Churchill Falls, Esker Roads, Minipi Lake, Québec North Shore, St-Anne de Beaupré and Schefferville	Fish and furbearers
Shag Island near the eastern end of Lake Melville at cul-de-sac near Rigolet and at Etagulet Bay	Seal hunting, waterfowl
Orma Lake Road area east of the Smallwood Reservoir	Caribou, bear, moose, small game, waterfowl, fish
Areas denoted by * are in the Study Area. This includes rivers and tributary systems that intersect the Study Area as well as areas in and around the communities of Upper Lake Melville.	
Source: Armitage 1990, in DND 1994.	

Sheshatshiu Innu harvesting areas for caribou, moose and black bear from 1979 to 1987 are depicted in Figure 6-2. For the Innu, caribou comprise over 40 per cent of the country-food diet and also have cultural and spiritual significance (Armitage 1990). In the area named by Tanner (1978) as the “Little Mecatina” region, the Innu hunted caribou south of Gull Island Rapids and along the Churchill River as far as Minipi Lake. In the winter, caribou were hunted in the whole area south of the Churchill River, often crossing the river toward the Metchin or Cache rivers depending on the movement of the herd. This area is now closed to caribou hunting due to the status of threatened herds and recent government conservation efforts have had the support of the Labrador Innu (NLDNR 2004). Armitage and Stopp (2003) indicated that, more recently, Sheshatshiu Innu travel along the TLH to Esker to hunt caribou. As indicated in Figure 6-2 from 1979 to 1987, caribou harvesting appeared to be concentrated north of the Study Area, near Red Wine, Shipskan and Snegamook Lakes. Based on this data, there appears to be little overlap between caribou harvesting areas and the Study Area.

Moose hunting is not known to be popular amongst the Innu. A 1987 survey of country food harvesting activity by the Innu indicates that only nine moose were taken over a one-year period by Sheshatshiu Innu (Armitage 1990). Similarly, a 1997 survey of Sheshatshiu Innu indicates that only 35 per cent of Sheshatshiu residents had eaten moose in the past five years (Innu Nation 1997). Figure 6-2 shows a small cluster of black bear kill sites in the Study Area along the proposed Interconnecting Transmission Line.

Fish and small game harvesting areas for the Sheshatshiu Innu are shown in Figure 6-3. This figure indicates that from 1979 to 1987, extensive fish and small game harvesting took place at a number of locations within the Study Area, particularly along the TLH and proposed Interconnecting Transmission Line. The most recently available information indicates that the Sheshatshiu Innu hunt willow ptarmigan in the area of Grand Lake (Kakatshu-utshishtun), at Double Mer (Atatshuinipekuss), Sebaskachu Bay (Shapeshkashiu-shipu), or up the Crooked River (Nipissiu-shipiss), all of which are outside the Study Area. This harvesting generally takes place in conjunction with other activities such as fishing and porcupine hunting (Armitage 1990). Porcupine is of particular importance to Innu hunters and is highly prized for its meat (Armitage and Stopp 2003). Also, the scapula of the porcupine is commonly used in scapulimancy, or spiritual communication with animal masters (Armitage 1990). Porcupine is most often hunted in the fall and the spring, when other game is sparse (Armitage and Stopp 2003).

Sheshatshiu Innu fish for trout at North West Point (Uhuniau), Rabbit Island (Uapushink), the mouth of the Kenamu River (Tshenuamiu-shipu), Matameku-shipiss, Carter Basin (Tshenuamiu-nipi), Mulligan Bay (Maunakant) or on the western end of Double Mer (Atatshuinipekuss) (Armitage 1990). Armitage and Stopp (2003) identified the Kenamu River as an important salmon harvesting area for the Innu. The many small rivers and streams flowing into Lake Melville have also been identified as an important salmon harvesting area (Tanner 1978).

Other commonly harvested fish species in Lake Melville include sea-run trout, smelt and rock cod. Areas of particular importance for these species, particularly for the Innu, include the Narrows at North West River, the mouth of the Churchill River, the entrance to Mud Lake, and Goose Bay (Tanner 1978). Various species of freshwater fish are caught in major rivers throughout the region, including the Churchill River, Little Mecatina River, and Minipi River (Tanner 1978).

A 1987 survey of Sheshatshiu Innu fishing activities (Armitage 1990) indicated that a variety of species were harvested, with brook trout being the most popular species in terms of both total harvest and total edible food weight (Table 6-3).

Figure 6-4 depicts furbearer trapping areas for Sheshatshiu Innu (1979-1987) and follows a similar pattern to fish and small game harvesting, with some concentration of activity in the Study Area near Gull Island and Winokapau Lake. Trapping in Labrador has historically been an important cultural and commercial activity. The importance of trapping to the residents of Labrador has its roots as the primary subsistence activity for most Settlers (see Section 4.2.2), and trapping also served as an anchor for other patterns of land use in the region (Plaice 2002), including a subsistence activity for the Innu (Tanner 1978). While hunting is often concentrated in open terrain and in wetlands, trapping takes place in heavily wooded areas close to small streams and rivers (Plaice 2002). In a 1980 study, Lower Brook, the south side of Gull Lake and Cache River were identified as areas used by the Innu for trapping (Budgell 1981)

Table 6-3 Results of Sheshatshiu Innu Fishing Activities, 1987

Species	Country Harvest (# Harvested)	Total Harvest	Total Edible Food Weight (kg)
Atlantic Salmon	6	143	539
Ouananiche	4	4	4
Lake Trout	766	833	1,000
Brook Trout	1,138	3,929	1,965
Rainbow Trout	85	85	43
Lake Whitefish	252	428	257
Northern Pike	237	287	287
Longnose Sucker	1,130	1,180	590
White Sucker	372	422	211
Burbot	49	89	36
Smelt	500	5,030	101
Tomcod	2	52	83
Source: Armitage 1990.			

According to Tanner (1978), the Innu trapped mink, muskrat, and beaver in the lakes south of the Churchill River as far south as Minipi Lake and as far west as the Minipi River. Otter were trapped along the length of the Churchill River, as well as in the smaller rivers and lakes in the area. Marten were found in wooded areas along both sides of the Churchill and Minipi Rivers (Tanner 1978). Innu land use has been defined as “geographically non-specific” and trapping in the same area for more than three years was culturally forbidden. This was defined as a contrast to the continuous and site specific land use by other Aboriginal and non-Aboriginal persons (Budgell 1981).

In the late 1980s, Sheshatshiu Innu also trapped at Sebaskachu Bay (Shapeshkashiu-shipu), along parts of the shoreline of Grand Lake (Kakatshu-utshishtun), the western end of Double Mer (Atatshuinipekuss), parts of the Crooked River (Nipissiu-shipiss), along the road to Goose Bay or North West Point (Uhuniau), up “Four Mile” Road, and in the vicinity of Little Lake (Armitage 1990).

Sheshatshiu Innu harvesting areas (1979 to 1987) for migratory waterfowl are shown in Figure 6-5 and indicates that, for the time period shown, harvesting in the Study Area was concentrated near Gull Island and Winokapau Lake. The Sheshatshiu Innu hunt migratory birds around the community and in the vicinity of Gull Island on the Churchill River. They also hunt extensively in the area to the north of the Study Area (DND 1994).

The wild fruit gathering areas for the Sheshatshiu Innu (1979 to 1987) are described in Figure 6-6. Important locations relate to access such as along logging roads and river valleys throughout the region. The berries most frequently gathered throughout the Study Area are blueberries, partidgeberries (red berries), raspberries and bakeapples. Mid to late summer is the primary gathering time. When harvesting, the Innu leave some berries to freeze under the snow for a second harvest in the spring. Blueberries and raspberries are harvested in dry open areas with other berries grown in marshy areas (Tanner 1978). There is no data available regarding Innu collection of medicinal plants in the Study Area.

6.1.3 Importance of Harvesting to Innu Country Food Diet

Both country-based and community harvesting are still important due to the reliance on “country food” (Tables 6-4 and 6-5), which continues to be “an essential element of their social structure and historical way of life” (Health Canada 2004). Country food is preferred by the Innu both for its health benefits and

because it represents a connection to the land (Byrne and Fouillard 2000). As shown by Tables 6-4 and 6-5, caribou comprises the majority of country food as a percentage of total community based production (48.3 percent) and by food weight (10,181 kgs). This is followed in percentage by fish and small game.

Table 6-4 Country Food as a Percentage of Total Food Production, 1987

Species	% of Total Edible Food Production	% of Total Country-based Production	% of Total Community-based Production
Caribou	40	36.4	48.3
Bear and Moose	9.3	12.3	2.6
Furbearers	8.4	11.2	2.0
Migratory Waterfowl	10.1	13.2	3.0
Fish	20.1	15.5	30.6
Small Game	12.0	11.4	13.5
Seal	0.1	0.1	Negligible
Source: Armitage 1989.			

Table 6-5 Results of Sheshatshiu Innu Harvest Activities, 1987

Species	Country Harvest (# animals)	Total Harvest (# animals)	Edible Food Weight (kgs)
Caribou	104	165	10,181
Bear	6	6	572
Moose	8	9	1,788
Beaver	206	225	1,788
Otter	49	49	233
Martin	313	339	NA
Mink	83	83	NA
Weasel	75	75	NA
Red Fox	26	28	NA
Cross Fox	-	1	NA
Muskrat	170	182	116
Lynx	1	1	4
Wolf	5	5	NA
Hare	527	1,188	968
Porcupine	44	67	319
Owl	5	5	NA
Spruce Grouse	1,269	1,808	633
Ruffed Grouse	-	40	14
Willow Ptarmigan	2,604	3,137	1,098
Canada Goose	743	780	1,638
Ducks	650	700	539
American Black Duck	38	42	32
Common Pintail Duck	20	23	18
Harlequin Duck	9	9	7
Oldsquaw Duck	65	140	108
Merganser	94	124	95
Loon	22	24	26
Eider Ducks	5	10	8
Common Eider	17	27	21
Scoters	38	52	40
Scaups	22	28	22
Blue Winged Teal	4	4	3
Source: Armitage 1989.			

In the time period discussed by Armitage (1979-1987) (1990), the Innu from both Sheshatshiu and Utshimassit continued to spend a substantial amount of time in the interior, harvesting a variety of large and small game, furbearers, migratory waterfowl, fish, and wild fruit. For the Sheshatshiu Innu, two in-country periods were identified. The first began in March or April and lasted until mid-June with the second beginning in August or September and lasting until mid-December. These harvest periods are more intense than community-based harvesting, which is more sporadic and less productive (Armitage 1990).

A 2001 paper on the importance of in-country activity estimates that approximately half of Sheshatshiu residents participate in seasonal trips into the country for two to three months at a time, primarily for caribou hunting (Degnen 2001, in Scott 2001). This is consistent with a 1997 survey of the Sheshatshiu Innu that showed that 42 percent of the population participated in the in-country harvest at least once a year. Spring appears to have been the most active time, with 48 percent spending at least one week in country. Hunting, fishing and gathering were identified as the most popular in-country activities. Over half of those surveyed used the Outpost Program and 44 percent of those surveyed would not have been able to go in-country without support from the Government or the Band Council (Innu Nation 1997). This confirms an earlier study, which estimated that 43.5 percent of the Sheshatshiu male population participated in the in-country harvest. The same study identified 38.7 percent of the male population of Sheshatshiu as inactive, undertaking no country-based activity (Amitage 1990).

6.2 Other Aboriginal and Non-Aboriginal Persons

Other Aboriginal and non-Aboriginal persons of the Study Area engage in land and resource use activities for recreational, subsistence, and commercial purposes. Prior to the establishment of a wage-based economy in the Study Area (pre-1940), resource harvesting was the primary source of income for other Aboriginal and non-Aboriginal persons and was also vital for subsistence.

However, the introduction of the wage-based economy in the Study Area fundamentally altered land and resource use among residents. Aided by the increased mobility provided by trucks, snowmobiles, ATVs and motorboats, contemporary land and resource use now primarily takes place in the evenings and on weekends and holidays. In the Lake Melville Area, harvesting activities are concentrated in the streams and rivers that flow into Lake Melville and in general, the areas closest to the communities remain the most intensely harvested. The presence of the TLH Phase I has improved access to the interior, which has affected the nature and intensity of use in this area (DND 1994).

A series of interviews conducted during the summer of 2007 indicated that other Aboriginal and non-Aboriginal persons in the Study Area engage in recreational and subsistence land and resource use activities throughout the year, with hunting and trapping concentrated between October and June, and other activities, such as fishing, cabin use, boating, berry picking and wood cutting taking place during the remainder of the year (Informant Interviews 2007).

For residents of Central Labrador, land and resource use is concentrated in two areas: the Churchill River downstream of Muskrat Falls and along the TLH Phase I between Happy Valley-Goose Bay and Churchill Falls. Other than some use of Winokapau Lake, activity appears to be limited above Muskrat Falls to the eastern end of Winokapau Lake. Ease of access is the primary driver for the use of these areas, and activities like boating and snowmobiling take place in combination with and in support of other elements of use. Other areas of high use include Minipi River and Metchin River. These tributaries of the Churchill River are popular for trapping and angling.

6.2.1 Land Use Patterns by Activity

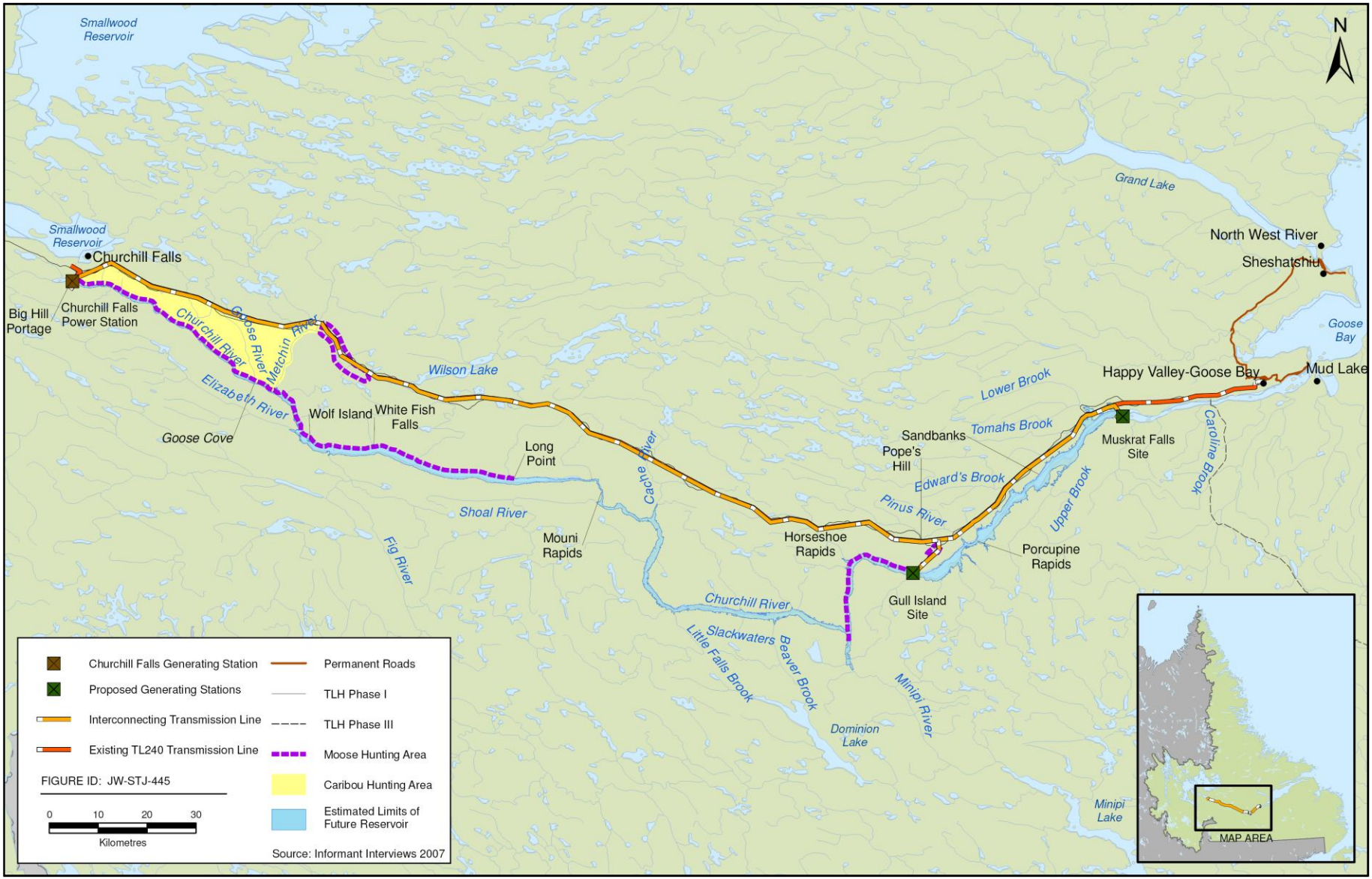
6.2.1.1 Large Game Harvesting (Caribou, Moose and Black Bear)

Informant interview data (2007) indicated that recreational and subsistence caribou hunting by residents of Happy Valley-Goose Bay, Mud Lake, North West River, Churchill Falls and Labrador City and Wabush is concentrated in the area along the TLH Phase I between Metchin River and Churchill Falls in Area 11, which is referred to as Orma South (Figure 5-1). Typically, respondents reported that hunting occurs in small parties of two to four; however, some people prefer to hunt alone. While the majority of informants from Happy Valley-Goose Bay, North West River and Mud Lake generally hunt and return to the communities, residents of Churchill Falls typically stay at cabins situated on the Churchill River at Goose Cove (at the mouth of Goose River), which they access from the TLH along a cleared trail that the cabin owners and others residents maintain. Because Area 11 extends to the shoreline of the Churchill River, hunting by people with cabins in that area may also take place adjacent to the water (Figure 6-7).

The limited number of residents of Labrador City who participate in caribou hunting in the Study Area (only three were identified) also stay at their cabins in Goose Cove or in cabins owned by friends. In addition to cabin use, other activities that occur in conjunction with caribou hunting in the Metchin River area include snowmobiling along trails and on the shoreline of the Churchill River, and the cutting of firewood for cabins and for cooking while hunting. It was reported that residents from Labrador City tend to hunt in the area to the north of the Study Area. According to a number of informants, the area around Metchin River is very popular for caribou hunting, in part due to the access provided by the TLH Phase I (Informant Interviews 2007).

Informant interview data indicate that very few residents of Happy Valley-Goose Bay hunt moose due to the taste – which is considered by many to be undesirable - and the frequent difficulties in obtaining a license. One informant from the community who hunts moose preferred to travel to the Island portion of the Province where numbers are relatively large and the likelihood of success is high. Two residents of Mud Lake and two from North West River also indicated that they hunted moose from time to time, mainly in Areas 51 and 52 toward the western end of the Study Area (Figure 5-1). However, even for those residents, it appears that caribou was the preferred big game species. One resident of North West River indicated that his harvesting activities usually start in September when he uses a boat to travel from Gull Island to Minipi River, which is an area he finds good for moose hunting. This informant stated that the north side of Winokapau Lake is probably the best location for moose hunting, due to the favorable habitat, which includes relatively level terrain. Two other areas identified for moose hunting by a resident of Happy Valley-Goose Bay lie to the east of where the Pinus River intersects with the TLH Phase I and both sides of the TLH Phase I (but mainly the south side) west of Wilson Lake (Figure 6-7).

Figure 6-7 Hunting Areas (Other Aboriginal and Non-Aboriginal): Caribou and Moose



An entirely different pattern of hunting occurs in Churchill Falls, where moose appear to be the favored large game species and hunting along the river (and possibly the TLH Phase I as well) is a popular fall and early winter activity (Informant Interviews 2007). The popularity of moose hunting among residents of Churchill Falls appears to be due to the fact that a large portion of the population originates from the Island of Newfoundland where moose hunting has been a common recreational and subsistence activity for generations. Informants from Churchill Falls look forward to the moose hunt, and several spoke of traveling downriver from the Churchill Falls tailrace by boat to the mouth of Goose River where they have cabins. From that location, they hunt along the shoreline downriver as far as Wolf Island at the western end of Winokapau Lake. One resident mentioned that his favored area for moose hunting is in the area from Metchin River to Wolf Island. Another mentioned that he preferred to hunt in the area of Whitefish Falls on the north shore of Winokapau Lake and in Area 52 (Figure 6-7).

Several informants indicated that the moose numbers generally seemed to be stable and that the likelihood of getting an animal in the Churchill Falls to Wolf Island area was moderate to high, mainly due to the favorable moose habitat. It was also noted that when the wolf population is large, species such as moose seem to decline (Informant Interviews 2007).

Interviews conducted in 2007 did not identify any users who hunted black bear.

6.2.1.2 Small Game Harvesting

Small game hunting by other Aboriginal and non-Aboriginal persons is popular throughout the Study Area and often occurs in connection with other land and resource use activities, including recreational activities such as cabin use (Informant Interviews 2007).

Small game hunting, particularly for grouse and ptarmigan and, to a lesser extent, rabbits and porcupine, is a very common recreational and subsistence activity in the Study Area, participated in by residents of all communities, albeit to a lesser extent by those of Labrador City (Informant Interviews 2007). It is evident from the responses, particularly from residents of Happy Valley-Goose Bay, that both sides of the TLH Phase I between Happy Valley-Goose Bay and Churchill Falls are used frequently for small game hunting of all species. The access provided by the corridor makes for easy travel, and snowmobiles and ATVs can be transported to locations relatively close to favored hunting areas on the north and south sides of the highway. The corridor is also popular for small game hunting by residents of North West River, who frequently travel the full length of the highway to Churchill Falls to hunt. While residents of Mud Lake also use the highway for hunting, they seem to do so to a lesser degree and prefer to hunt small game along the shoreline of the Churchill River from the mouth up as far as Muskrat Falls using boats (Informant Interviews 2007).

While it is not a common activity, some residents of Happy Valley-Goose Bay indicate that at least once a year, typically in the fall, they travel the river by boat from Churchill Falls to Muskrat Falls to hunt small game. They indicated that they put their craft in the river at the Churchill Falls tailrace and take five to six days to travel down the river, camping and hunting along the way on both shorelines (Informant Interviews 2007).

Other areas commonly used for small game hunting by residents of the Lake Melville area include the mouth of the Elizabeth River on the south side of the Churchill River at the western end of Winokapau Lake, the area between Upper Brook and Cache River, the mouth of the Churchill River to Edward's Brook, the area from Gull Island to the mouth of Churchill River, and from the mouth of Upper Brook,

downstream to the mouth of Churchill River. For residents of Happy Valley-Goose Bay, rabbit hunting is a popular activity, which is concentrated in the area between Pinus River (sometimes referred to as Pena's River), and Lower Brook, from the mouth of the Churchill River to Edward's Brook, from Gull Island to the mouth of the Churchill River, from the mouth of the river to Mackenzie Brook, and between Pinus River and Lower Brook (Informant Interviews 2007).

Residents of Churchill Falls also mentioned small game hunting within the Study Area, but these activities seem to be limited in scope and are not as extensive as other hunting in the area. Because several residents of that community have cabins on the Churchill River at Goose Cove, small game hunting is focused in that area. This activity is relatively limited and conducted mostly on weekends. The same was true for residents of Labrador City who have cabins at Goose Cove or who use cabins owned by friends (Informant Interviews 2007).

In summary, small game hunting by residents of the Study Area appears to be extensive and is often undertaken in association with other activities, as well as on an opportunistic basis. While small game hunting occurs along the full length of the river from Churchill Falls to the mouth, the highest concentration of activity appears to be along the full length of the TLH Phase I corridor, the shoreline of the Churchill River below Muskrat Falls, and the area in the vicinity of Upper Brook on the north side of the Churchill River, downstream of Pinus River (Informant Interviews 2007).

6.2.1.3 Migratory Birds and Waterfowl

The hunting of migratory birds and waterfowl in the Study Area by residents of the five communities appears to generally follow the pattern identified and discussed in Section 6.2.1.2 for small game hunting. Specifically, hunting occurs in wetland habitat along the full length of Phase I of the TLH between Happy Valley-Goose Bay and Churchill Falls, and along the Churchill River. Migratory bird and waterfowl hunting takes place in fall by hunters on foot or using ATVs or boats (Informant Interviews 2007). Seabirds are generally not present in the Study Area.

6.2.1.4 Trapping

Trapping in Labrador has historically been an important cultural and commercial activity for both Aboriginal and non-Aboriginal persons. The importance of trapping in Labrador has its roots as the primary subsistence activity for most Settlers (see Section 4.2.2), and trapping also served as an anchor for other patterns of land use in the region (Plaice 2002). While hunting is often concentrated in open terrain and in wetlands, trapping takes place in heavily wooded areas close to small streams and rivers (Plaice 2002).

It was noted as early as 1975 that trapping as an occupation in Labrador was in decline (Zimmerly 1975). The establishment of the military base at Happy Valley-Goose Bay in the early 1940s was a major turning point, altering land use patterns and generally reducing the size of the area used by trappers. Many residents of the Upper Lake Melville area abandoned traplines in favour of wage-based employment and were often joined by the Innu. These changes were accompanied by a drop in fur prices, which increased the attractiveness of wage-employment (Wadden 1991). As a result, fewer trappers went to areas further in the interior, and those who continued to trap preferred to take up abandoned traplines around communities. In particular, fewer trappers used the Churchill River to access trapping areas above Churchill Falls, and the use of the river gradually declined.

A mid-1990s study indicates that the most heavily trapped areas at that time included the shores of Goose Bay, Little Lake and Grand Lake, the Churchill River below Muskrat Falls, the lower Beaver River, and the Kenamu, Traverspine, Caribou, Naskaupi, Susan and Crooked River valleys. As with hunting, the presence of the TLH increased access to interior trapping locations (DND 1994). Goudie (1991) indicates that in the late 1980s, areas adjacent to the TLH Phase I between Happy Valley-Goose Bay and Churchill Falls were heavily trapped.

A shift to wage-labour and the improved access to the interior provided by the TLH, combined with the use of snowmobiles, which drastically reduced the time required to maintain a trapline (usually referred to as a path), resulted in a change from extensive and sustained long range trapping, to intense but sporadic short range activity. For many, trapping became a recreational rather than a subsistence activity (Plaice 2002). Plaice (2002) describes a complex social system that governed trapping activity in Labrador. Traplines tended to be only known in detail by a few people and were generally regarded as the exclusive ground of the tending trapper who typically inherited them from an older, possibly retired, relative or friend. An “open system” of trapping has replaced this traditional system of trapline management (Plaice 2002).

Along the TLH, for example, the concept of ownership of traplines currently does not exist, although it does exist to some degree for areas that are more remote (Informant Interviews 2007), as has been the case for the past two decades (DND 1994). A survey of trapping activity, completed for Newfoundland and Labrador Hydro in 1980 (Budgell 1981), identified approximately 20 trappers with interests in the Study Area. Several of those interviewed were also interviewed in 2007 for the preparation of this report. Areas identified in the 1980 trapping study include:

- area approximately 8 km (five miles) south of Mud Lake;
- north and south sides of Gull Island and Gull Island Rapids;
- Caroline Brook;
- off Churchill Road (TLH Phase I) in area of Edward’s Brook;
- Sandy Island Lake, from area approximately 5 km (3 miles) south of the river north to the Churchill Road;
- area between Churchill River and Goose River;
- Mud Lake shore;
- Muskrat Falls;
- Winokapau Lake (upper and lower);
- Big Hill (Portage);
- Penas River, Pope’s Hill;
- Upper Muskrat Falls;
- Sandbanks;
- Porcupine Rapids;
- Gull Island Lake;
- Horseshoe Rapids;
- Slackwaters;

- Lower Mouni Rapids;
- Mouni Rapids; and
- Goose Cove.

Known locations are illustrated in Figure 6-8.

As confirmed by several informants during the 2007 interviews, trapping in the Study Area is concentrated on the many rivers, streams, ponds and bogs that intersect with the TLH Phase I between Happy Valley-Goose Bay and Churchill Falls. While numbers of active trappers along the north and south sides of the highway could not be established, the level of activity in that area certainly exceeds that currently taking place on the Churchill River. The reason for the increased level of trapping along the highway is likely the ease of access it provides and the ability for trappers, mainly from the Happy Valley-Goose Bay area, to transport snowmobiles and ATVs to drop-off points from which deeper interior locations and waterways can be accessed (Informant Interviews 2007).

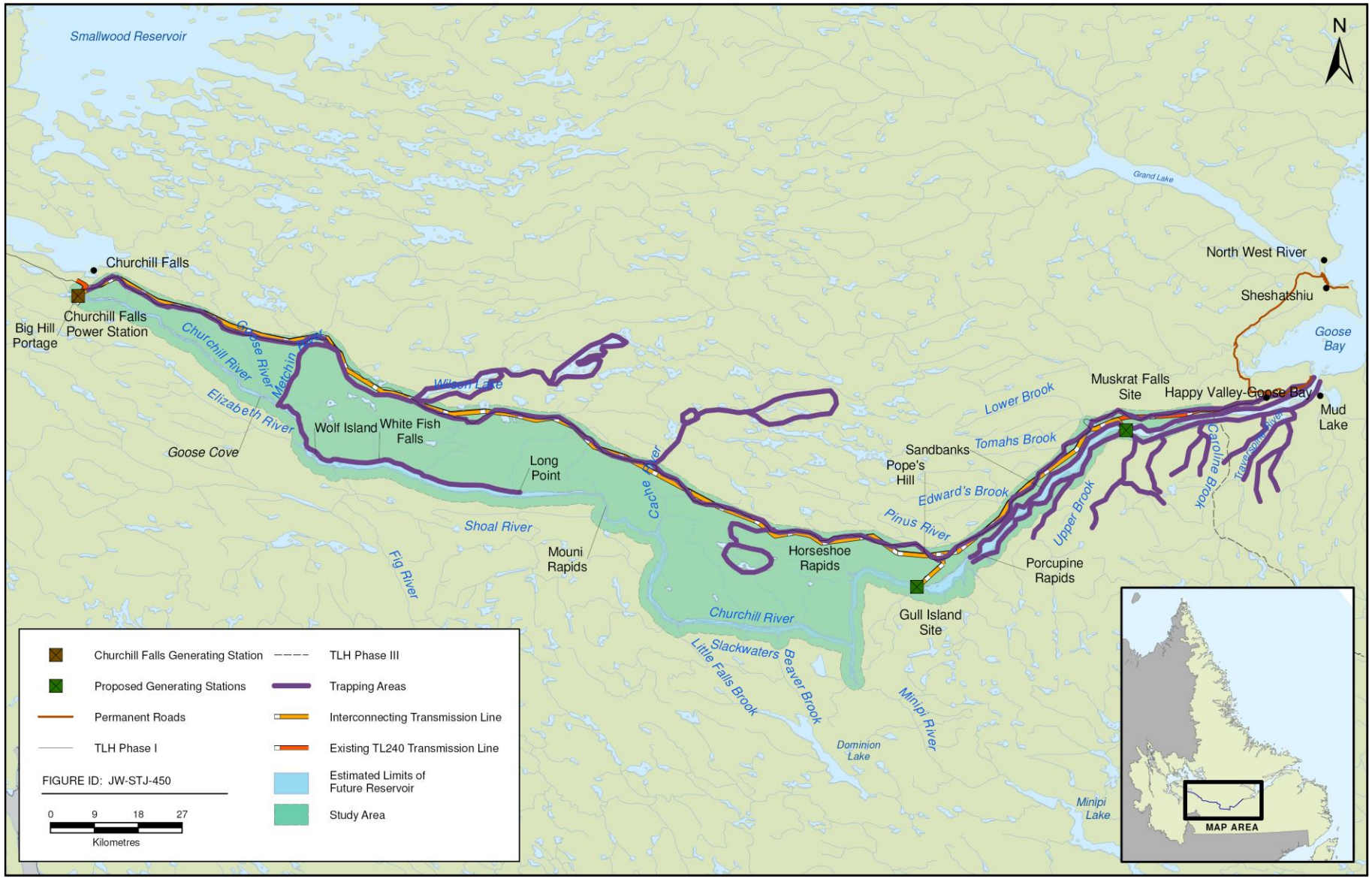
Areas where trapping is currently taking place to the north of the Study Area include the shoreline of Wilson Lake and the several large water bodies to the northeast, and along a number of interconnected streams and rivers to the northeast of Cache River. Between the TLH Phase 1 and the Churchill River, trapping occurs along the Metchin River and along several streams and brooks to the southeast of the Cache River. Although place names were not highlighted by informants, interviews indicate that virtually all the major and minor water bodies intersected by the TLH near Happy Valley-Goose Bay see some degree of trapping activity. Species currently trapped in the Study Area include marten, fox, mink, wolf, lynx and beaver (Informant Interviews 2007).

Locations along the Churchill River identified for trapping include a number of large and small water bodies on the south shoreline between Mud Lake and Muskrat Falls (Figure 6-9). These areas are trapped primarily by residents from Mud Lake and Happy Valley-Goose Bay. Several residents of Happy Valley-Goose Bay and Mud Lake indicated they used the area below Muskrat Falls extensively for trapping, mainly in winter. Above the falls, up as far as the lower end of Winokapau Lake, residents of Happy-Valley-Goose Bay and North West River trap between Muskrat Falls and Gull Island. Above Gull Island on the river, trapping is limited to a small number of individuals, and does not appear to extend beyond Long Point at the eastern end of Winokapau Lake (Informant Interviews 2007).

According to one informant, there are no more than a dozen people using the Churchill River for trapping, particularly above Muskrat Falls. This estimate is consistent with information obtained from other interviews. The animals harvested along the river include marten, beaver, lynx, fox, wolf and muskrat. The majority of trapping takes place during the winter when it is possible to travel by snowmobile, although some informants trap in the fall. It was also reported that trapping in the Study Area is more an activity based in tradition and recreation rather than an economic venture (Informant Interviews 2007).

Figure 6-8 Trapping Areas (1980)

Figure 6-9 Trapping Areas (Current) (Other Aboriginal and Non-Aboriginal)



6.2.1.5 Recreational and Commercial Fishing

As indicated by Informant Interviews (2007), fishing is a popular activity within the Study Area for both residents and non-residents. Popular species include trout and salmon, as well as smelt and rock cod. DFO confirms that the many small rivers and streams flowing into Lake Melville are among the most popular areas for both salmon and trout fishing in Labrador and are an especially popular net fishing area (J. Holwell pers. comm.).

Within the Churchill River valley, salmon and trout are the species of choice for both angling and net fishing, with the area between Muskrat Falls and Lake Melville having the highest concentration of activity. From Churchill Falls to Winokapau Lake and the surrounding lakes and rivers, trout is the predominant species, while some pike are harvested in shallower waters. Other species such as whitefish and suckers are also fished, but are not as actively harvested. Between Minipi River and Gull Island, Brook Trout is the most commonly harvested species. Between Gull Island and Muskrat Falls, activity is limited although there is some fishing in the vicinity of Edwards Brook and Lower Brook (J. Holwell, pers. comm.)

The 2007 informant interview data indicate that recreational and subsistence fishing does occur in the Churchill River and at the mouths of the many small and large waterways that flow into it. There is also fishing along the TLH Phase I between Happy Valley-Goose Bay and Churchill Falls. Residents of Happy Valley-Goose Bay, for example, fish for trout from the mouth of the Churchill River up to Muskrat Falls. Others reported fishing for trout at the mouth of the Travespine River, and from there, up to Jackson's Brook. Other areas identified for trout fishing by residents of Happy Valley-Goose Bay include: the shoreline of the Churchill River from Gull Island to Cache River; from Muskrat Falls to Gull Island on the north side; at Gull Island itself in spring; and from Traverspine River to Upper Brook (Informant Interviews 2007).

Residents of Mud Lake fish for smelt, trout and sometimes pike from the mouth of the Churchill River up to Muskrat Falls, and in several brooks and rivers intersected by the TLH Phase I between Muskrat Falls and Churchill Falls. Residents of North West River also fish trout at the mouth of Minipi River where it flows into the Churchill River (Informant Interviews 2007).

Interviews with residents of Labrador City indicate that they fish from the Churchill Falls tailrace downstream to Mouni Rapids, although the activity is concentrated above Winokapau Lake and in the vicinity of Goose Cove where they have cabins. Not surprisingly, fishing by residents of Churchill Falls is concentrated in the area west of Wolf Island at the west end of Winokapau Lake and up to the tailrace in the community. A number of residents take fishing trips once or twice a year downstream as far as Mouni Rapids (Informant Interviews 2007).

6.2.1.6 Other Recreational Activities

Boating and snowmobiling are popular activities for residents of all areas and are undertaken in support of other land use activities such as hunting, fishing and trapping. Also, all groups identified dangers associated with traveling on the river ice in the winter. Most residents identify ease of access as the primary driver for using the identified areas, although some users have identified traditional or family harvesting areas (Figures 6-7 and 6-9).

The locations of cabins located along the Churchill River between Happy Valley-Goose Bay and Churchill Falls were identified through a helicopter survey conducted by Hydro in the summer of 2007. The data were provided to Minaskuat for inclusion in this report. Of the 22 cabins recorded, four are located in the vicinity of Muskrat Falls, one is on the south side of the Churchill River across from Upper Brook in an area referred to as Tomah's, and one is located upstream at Gull Island. Further west, there is one cabin situated at the mouth of the Elizabeth River, and there is a cluster in the vicinity of Metchin River upstream of Winokapau Lake. The majority of cabins recorded by Hydro along the river are situated between Metchin River and Churchill Falls (Figure 6-10), which is consistent with the level of recreational use of the river reported by residents of that community, and to a much lesser extent, by residents of Labrador City and Wabush.

Snowmobiling is both a popular recreational activity and the associated trail system is an important element of the transportation infrastructure in the region. The groomed trail system in central Labrador links the Lake Melville Area with Churchill Falls and Labrador West (Figure 6-11). There are warm-up cabins throughout the area.

North of Goose River in the Maclean Lake area, the Birch Brook Nordic Ski Club operates a non-profit recreational and environmental education facility. The ski season generally runs from January to April and there are approximately 30 km of groomed ski trails in the area. Outside the ski season, these trails serve as hiking trails (Birch Brook Nordic Ski Club 2007).

Boating, including canoeing and kayaking, is a common recreational activity in the Study Area. The majority of the boating occurs on the Churchill River between Muskrat Falls and Happy Valley-Goose Bay, and between Churchill Falls and the lower end of Winokapau Lake. While there is some boating on the section of the river between these two areas of concentration, it appears to be limited and associated with recreational travel down the full length of the river in canoes or kayaks, and with recreational and subsistence hunting and fishing activities during summer and fall (Informant Interviews 2007).

For the past 12 years, Elizabeth (Tshaukuish) Penashue, an Innu elder, has led a canoe trip down the Churchill River. The group consists of both Innu and other non-Aboriginal people of all ages. The distanced traveled during the trip varies but published reports have stated that the group travels as far as Gull Island or to Happy Valley-Goose Bay (McGrath 2008 and CBC, January 29, 2007).

6.2.1.7 Berry Picking

Berry picking is common throughout central Labrador, including the Study Area and is not regulated or managed by government, other than commercial berry picking operations. There are no known commercial berry picking operations within the Study Area.

During the 2007 interviews, most informants indicated that burn-overs and open terrain were popular locations for berry picking, and that blueberries and red berries were the favored species. However, any accessible location where berries occur may be used. Goudie (1991) identified a large berry picking area in a former burn area adjacent to Muskrat Falls, identifying raspberries, blueberries, squashberries, bakeapples and partridgeberries as abundant in the area.

Figure 6-10 Cabin locations on the Lower Churchill River (Hydro survey, 2007)

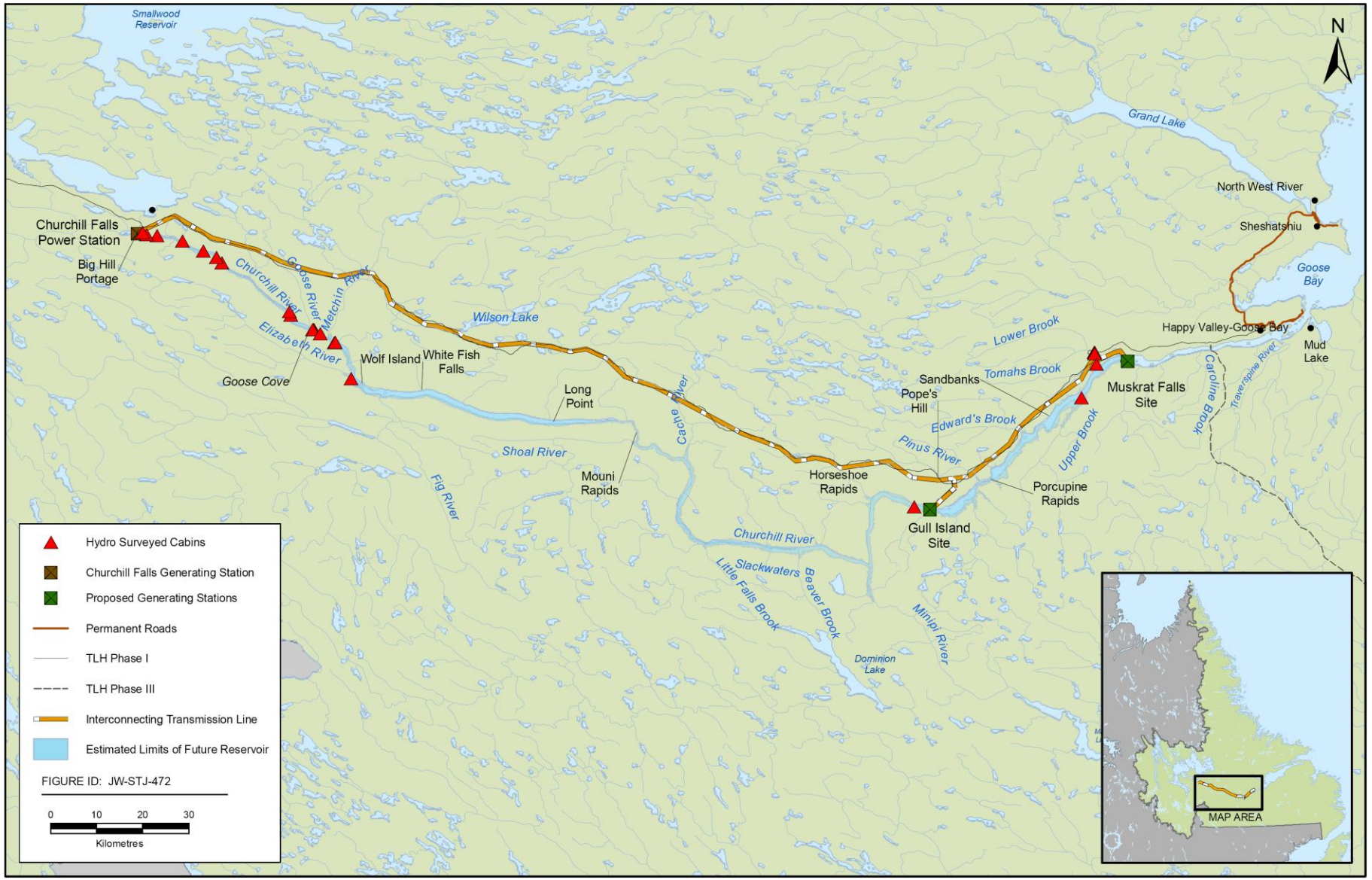
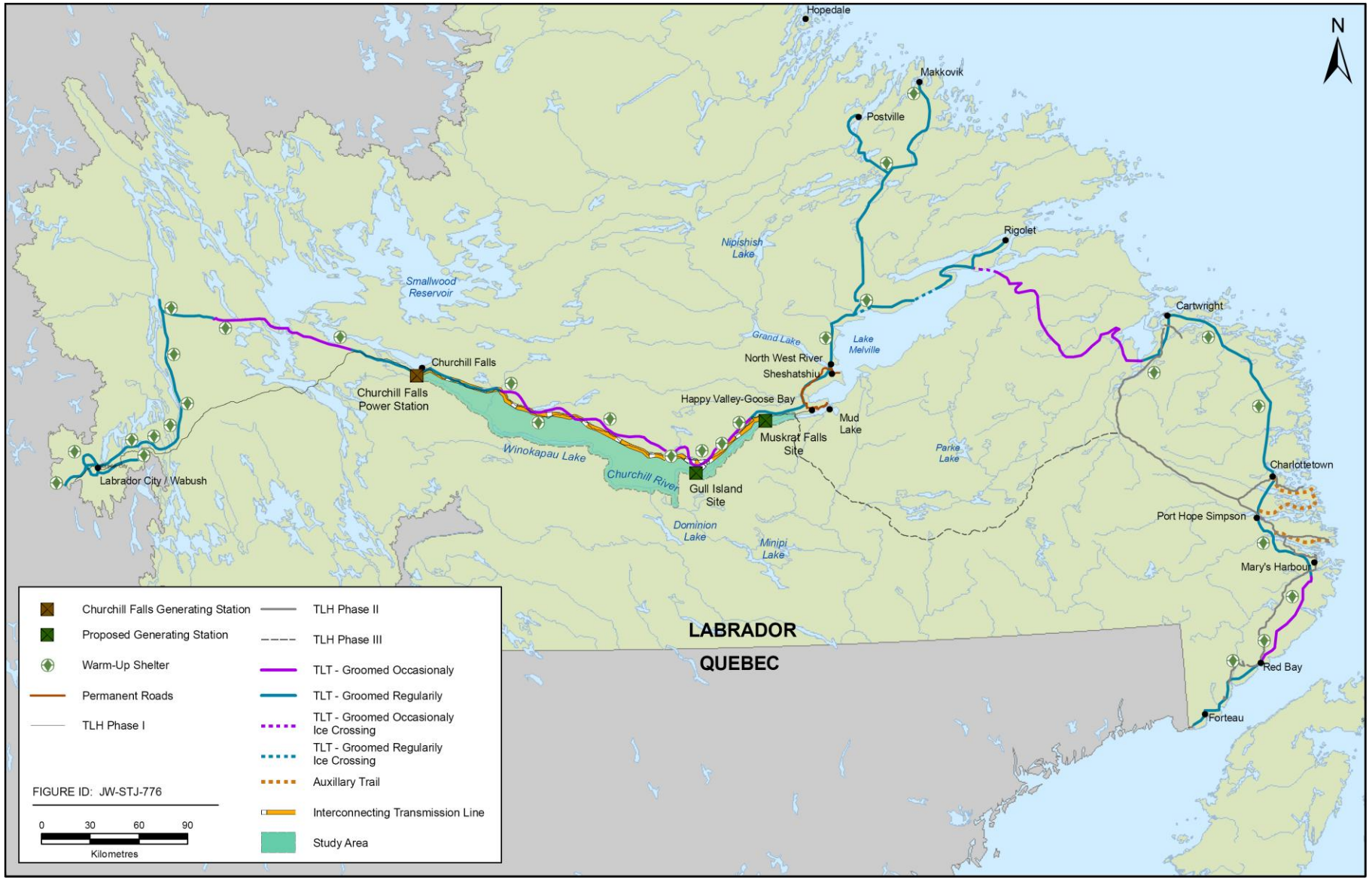


Figure 6-11 Labrador Snowmobile Trails



6.2.1.8 Agriculture

Commercial agriculture production in the Lake Melville Area began in the 1970s and 1980s and in 2000, the Lake Melville Agricultural Association was incorporated (NLDNR and NLDLAA 2004). Currently, there are several farms of approximately 5 to 10 acres in size located in the Upper Lake Melville area. Vegetables and livestock are raised for both personal and commercial purposes. Fur farms have also been established in the area (S. Clemens pers. comm.). In July 2007, the NLDNR also initiated a feasibility study on the establishment of a dairying industry in central Labrador (NLDNR 2007d).

6.2.1.9 Forestry and Woodcutting

In 2006, 302 domestic permits, totalling approximately 6,644 m^3, were issued in FMD 19A. There were also 18 commercial permits issued in 2006, totalling approximately 8,432 m^3 (NLDNR 2007a). Annual harvest allocations in District 19 total approximately 54,000 m^3 and there are operating sawmills in North West River and Happy Valley-Goose Bay. In total, Labrador mills currently produce approximately 2 million board feet of green lumber for use by local residents (Halifax Global Management Consultants 2006).

Commercial forestry is addressed in Section 5.9. Domestic use of woodcutting within the Study Area, as determined through informant interviews, is limited and the wood appears to be used primarily for woodstoves in cabins and for cooking and heating during camping trips or travel along the Churchill River and the TLH Phase I (Informant Interviews 2007).

6.2.1.10 Mining

The Central Mineral Belt of central and east central Labrador outside the Study Area is currently the focus for mineral exploration in Labrador. Nickel mining and exploration is concentrated at Voisey's Bay in northern Labrador, while iron ore mining and exploration occurs in western Labrador.

In the Study Area, Tripple Uranium Resources has claims in the area around Happy Valley-Goose Bay and in the Churchill River. Markland Resources Development has been exploring the Churchill River Estuary at Happy Valley-Goose Bay for garnet, zircon, and titanium-iron oxides. There are also individuals with staked claims that fall within the Study Area, including a series of claims that spans the river near the Cache River interface (NLDNR 2006; 2008). The Churchill River, from the Smallwood Reservoir to the Muskrat Falls area, has been designated as exempt mineral land and can only be made available for license by the Minister through public tender (*Mineral Act 2006*). The area around Sheshatshiu and a large military reserve area in and around Happy Valley-Goose Bay have both been declared exempt (NLDNR 2008). Several Quarry Permits have been issued within the Study Area (NLDNR 2008).

6.2.1.11 Military Activity

Now known as "5 Wing Goose Bay," the base at Goose Bay was constructed by Canada and the United States in 1941 for use by anti-submarine patrol, and as a staging area for aircraft en-route to Britain. From October 1942 until the end of the World War Two, 24,000 Canadian and American-built fighters and bombers staged at the base at Goose Bay on their way to Europe (DND 2007). After the war, the base became increasingly involved in NATO and was involved in the U.S. Distant Early

Warning (DEW) Line as well as Strategic Air Command. The U.S. military withdrew from the base in 1973.

The presence of the base at Goose Bay has had a major effect on land and resource use based activities in the Study Area by introducing the area to large-scale, wage-based employment and causing a shift in land use patterns in the Lake Melville region. By 1951, the civilian payroll exceeded $4 million (Plaice 2002).

The low-level flying program at Goose Bay began in 1967 when the Royal Air Force initiated low-level fighter and bomber training. In 1980, the German Air Force proposed to increase low-level flight training at Goose Bay. The Base's location made it possible to conduct a level and type of training not possible in Europe due to high population densities. The proposal outlined two "Special Use Airspace" areas, which included practice ranges for bombing. These areas were located in north- and south-central Labrador, respectively. This low-level flight training formed the bulk of activity at the base throughout the 1980s (Plaice 2002).

The mid-1980s to early-1990s were the highest period of use for the base. By 1995, approximately 6,000 to 7,000 low-level training flights were conducted out of Goose Bay over designated areas in Labrador and Québec (CEA Agency 1995) (K. Holmwood pers. comm.). In the mid 1990s, the Department of National Defense proposed to renew a Multinational Memorandum of Understanding (MMOU) between Canada and other NATO members that would allow for an increase in training flights to a maximum of 18,000, with 15,000 low-level flights (CEA Agency 1995). The volume of flights presented in this proposal was never attained. The MMOU expired on March 31, 2006 and was not renewed. (K. Holmwood, Pers. Comm.).

The base is currently home to the 444 Combat Support Squadron and provides a training facility to a variety of multinational clients. The facility has recently moved to a pay-per-use structure, which replaces the previous system of cost sharing among multinational users. Between 2006 and 2007, the level of use of the training area has been very low, with only 10 training contracts. The base generally has several months to a year notice for large training contracts and, although none are in place, a contract is in discussion that will result in approximately 50 flights per day for a three week period in 2008 or 2009 (K. Holmwood pers. comm.).

Due to the size of the training area (130,000 km^2) and the current volume of flights, 98 percent of the training area is exposed to less than one flight per day and less than 1 percent of the training area experiences less than five per day. The training area is designated as closed rather than restricted when military activities are in progress, requiring only that military personnel be notified of civilian flight activities. The training area is frequently used by civilian aircraft and is currently being reviewed by potential military and civilian clients as a training area for Unmanned Aerial Vehicles. The Town of Churchill Falls and the existing hydroelectric facilities are located within the training area but is protected from any training by an exclusion buffer of 37 km (20 nautical miles) (DND 2007; K. Holmwood pers. comm.).

7.0 SUMMARY AND CONCLUSIONS

In June of 2007, Minaskuat was retained by Hydro to conduct a study of current land and resource use in the vicinity of the proposed Project, including the use of natural resources in the area and use of the lower Churchill River generally. The study is concerned with current land and resource use in a Study Area that extends from the southern limits of the proposed reservoir to the interconnecting transmission line that roughly parallels Phase I of the TLH between Happy Valley-Goose Bay and Churchill Falls. Initial research identified the residents of Happy Valley-Goose Bay, North West River, Mud Lake, Sheshatshiu, and Churchill Falls as the primary users of the resources within this area and hence, in this context only, the Study Area also includes these communities.

The purpose of the report was to identify and describe current land and resource use within the lower Churchill River valley and other areas where Project infrastructure will be situated or physical disturbance will occur. The report focused on gathering and presenting primary and secondary source material on current use of land and resources by Labrador residents and other users for traditional, recreational and commercial purposes. The information gathered will be used in the Environmental Impact Statement (EIS) to assess the potential environmental effects of the Project on land and resource use by Innu and other Aboriginal and non-Aboriginal persons.

Based on the data gathered and assessed for this baseline study (secondary sources only), current Innu land and resource use of the Study Area for subsistence and traditional purposes, including the establishment of camps and the opportunistic harvest of caribou, porcupine, beaver, ptarmigan and other species, is focused on, but not limited to, areas adjacent to the TLH Phase I between Happy Valley-Goose Bay and Churchill Falls. While there has been use of the river during recent times, current land and resource use activities continue to be centred in the same areas used prior to permanent settlement, including the Eagle River (Nutapinuant-shipu) and its many tributaries, which are described by Armitage and Stopp (2003) as a core land use area. Other areas of importance to Innu harvesting include Metchin, Cache, and Goose Rivers, land use areas that overlap the Study Area. They also include the headwaters of the Red Wine River, Minipi Lake, Mud Lake, Seal Lake, Shipiskan Lake, Snegamook Lake and Kapinien-nipi (Armitage 1989,1990). Moreover, a community consultation with the Innu on the development of the lower Churchill River indicated that use of the river has seriously declined since the original Churchill Falls Development in the 1960s due to effects on fish and wildlife in the lower Churchill River and valley (Griffiths 2001).

For other Aboriginal and non-Aboriginal persons, land and resource use activities within the Study Area for recreational and subsistence purposes take place throughout the year, with hunting and trapping concentrated between October and June, and other activities, such as fishing, cabin use, boating, berry picking and wood cutting, occurring during the remainder of the year. For residents of Happy Valley-Goose Bay, land and resource use is for recreation and subsistence purposes, and includes hunting, fishing, trapping and support activities such as snowmobiling and boating. The Kenamu and Traverspine rivers, both outside of the Study Area, are the most popular areas of use. Within the Study Area, the Churchill River downstream of Muskrat Falls is popular for boating. Some users also identify this area with small game hunting and trapping. Although there is some bird hunting and fishing in the area, the Churchill River above Gull Island does not appear to be used extensively. The TLH Phase I (and locations made accessible by it) is popular for hunting small game and trapping, and caribou are hunted in the Metchin River area.

Residents of Mud Lake follow a similar pattern of use to the residents of Happy Valley-Goose Bay, with the focus of activity along the Churchill River up to Muskrat Falls and areas made accessible by the TLH Phase I. Primary activities include small game and geese and duck hunting. Residents also identify the Traverspine River as a popular fishing area. All use is generally concentrated in the winter and early spring, with the Churchill River used for travel during the winter.

Few residents of North West River are resource users in the Study Area. The Metchin River area is used for caribou hunting and for trapping beaver, lynx and muskrat. Tomah's River, on the south side of the Churchill River across from Edward's Island, was identified as a hunting area for ducks and geese. Informants also identified the TLH Phase I as a popular area for hunting ducks, geese and partridge.

Residents of Churchill Falls use the Study Area primarily for recreational purposes. Several residents have cabins at the mouth of Goose River from where they hunt moose, birds and fish. For some, fishing extends all the way downstream to Mouni Rapids. However, in general, use of the Churchill River by residents of Churchill Falls is concentrated above Winokapau Lake. Lastly, few residents of Labrador City and Wabush are resource users in the Study Area.

In summary, the areas of most use within the Study Area by other Aboriginal and non-Aboriginal persons include the section of the Churchill River downstream of Muskrat Falls, the Churchill River west of Winokapau Lake, and the corridor created by the TLH Phase I between Happy Valley-Goose Bay and Churchill Falls. The area of the river between Muskrat Falls and the west end of Winokapau Lake sees only limited use for hunting, fishing and recreational boating.

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9.0 LIST OF ACRONYMS

APF	Agricultural Policy Framework
ASL	above sea level
ATV	All-Terrain Vehicle
BP	Before Present
CEA Agency	Canadian Environmental Assessment Agency
CWS	Canadian Wildlife Service
DEW System	Distant Early Warning System
DFO	Fisheries and Oceans Canada
DND	Department of National Defence
EIS	Environmental Impact Statement
FMD	Forest Management District
GPS	Global Positioning System
HBC	Hudson's Bay Company
Hydro	Newfoundland and Labrador Hydro
IBP	International Biological Program
kV	kilovolt
LMN	Labrador Metis Nation
MMA	Moose Management Area
MMOU	Multinational Memorandum of Understanding
MPA	Municipal Planning Area
MW	megawatt
NATO	North Atlantic Treaty Organization
NLDEC	Newfoundland and Labrador Department of Environment and Conservation
NLDNR	Newfoundland and Labrador Department of Natural Resources
NLDTCR	Newfoundland and Labrador Department of Tourism, Culture and Recreation
NLDTW	Newfoundland and Labrador Department of Transportation and Works
The Project	Lower Churchill Hydroelectric Generation Project
SFZ	Salmon Fishing Zone
SMA	Species Management Area
TLH	Trans Labrador Highway

APPENDIX A

Newspaper Ad for Land and Resource Use Interviews and

Land and Resource Use Questionnaire

PUBLIC NOTICE

As part of the environmental assessment of the proposed Lower Churchill Hydroelectric Generation Project, Newfoundland and Labrador Hydro is conducting a study of current land and resource use activities in the Project area.

This information will be used to better understand local patterns of land and resource use (such as hunting, trapping, fishing, boating, forestry, etc.) for consideration in the Project's eventual Environmental Impact Statement.

If you or your organization are involved in recreational, subsistence and/or commercial land and resource activities in the Churchill River Valley or adjacent area and you would like to contribute information on such use for consideration in this study, please contact Newfoundland and Labrador Hydro at:

Lower Churchill Project (Land and Resource Use Study)
P.O. Box 12400, St. John’s NL A1B 4K7
Telephone: (709) 737-1833
Fax: (709) 737-1985
Email: lowerchurchill@nlh.nl.ca

For further information on the Lower Churchill Project, visit www.lowerchurchillproject.ca

INTERVIEW QUESTIONNAIRE

Draft

MINASKUAT PROJECT NO. MIN0319.14
LAND AND RESOURCE USE BASELINE STUDY
LOWER CHURCHILL HYDRO GENERATING PROJECT

The purpose of the study is to gather information on Land and Resource Use in the Churchill Valley to be used for the Environmental Assessment of the proposed Lower Churchill Hydro Generating Project .

Interviewer:
Date:
Signature:
Interview Map Reference:

- ☐ **May reference my name in the study.**
- ☐ **Can use my information in the study.**
- ☐ **Permission to tape interview.**
- ☐ **Signature of respondent.**

Name of Respondent (s): _____

_____

_____

_____

Resident of: _____

_____

_____

_____

Age: <20s, 30s, 40s, 50s, 60s, 70, 80s, 90s _____

☐ **Male** ☐ **Female**

Activity: ☐ Hunting ☐ Fishing ☐ Trapping ☐ Boating
☐ Cabin User ☐ Outfitting ☐ Snowmobiling
☐ Other, such wood cutting for logs or firewood, and berry picking

Indicate which type of activity: ☐ Subsistance
☐ Recreational
☐ Commercial

Activity

What do you do?

_____

_____

_____

_____

SETTING

Where do you go? Describe the area(s) you use, the location and topography.

_____

_____

_____

_____

1:50,000 Topographic Reference:

_____

_____

_____

_____

DETAILS OF USAGE

Why do you use this particular area(s)? _____

_____

_____

Cont'd

_____

Which time of year do you go there and for how long?

_____

_____

_____

_____

How long do you usually stay?

_____

_____

_____

_____

If in winter, do you travel on the river?

_____

_____

_____

_____

How long have you been using the area? _____

_____

_____

DETAILS OF USAGE (Continued)

Is there a name associated with the area(s) you use, and what does it mean? _____

Which fish, animals and birds (or signs of animals and birds) do you see, and how many?

Which animals, birds and fish do you take? _____

How many do you usually get?

What type of gear do you use?

Have you noticed any differences with fish, animals and plants over the years?

If boating, what type do you use? _____

What do you stay in when using the area(s), or do you return home?

Do you travel alone or in a group? _____

Is your area(s) also used by others? _____

How do you get to the area(s)? _____

How long does it take to get there?

List (and indicate on the map) any travel routes you use or know of, including trails, woods-roads and portages. _____

Do you know when people started using this area(s)? _____

Do you encounter others while there, or are there others who may use the area but at different times of the year(s)? _____

Is this a favored area for you and others? _____

_____

_____

_____

Do you ever encounter older remains (cabins, camps or temporary shelters) while hunting, fishing, trapping or boating? _____

_____

_____

_____

Have you built anything in the area(s) you use such as a cache, hunting blind, trap, fish-weir, temporary shelter, camp or cabin? _____

_____

_____

_____

HERITAGE BUILDINGS, ARCHAEOLOGICAL SITES AND FEATURES

List (and indicate on the map) any heritage buildings, archaeological sites, artifacts, camps, cabins, abandoned tilts or structures you may know of along the river.

_____

_____

_____

_____

COMMENTS:

_____

_____

_____

_____

OTHER INFORMATION: