TRANS-LABRADOR HIGHWAY PHASE III
HAPPY VALLEY - GOOSE BAY
TO CARTWRIGHT JUNCTION

FINAL REPORT:
HISTORIC RESOURCES
COMPONENT STUDY

INNU ENVIRONMENTAL
LIMITED PARTNERSHIP

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HISTORIC RESOURCES
COMPONENT STUDY

SUBMITTED TO

DEPARTMENT OF WORKS, SERVICES AND TRANSPORTATION
5TH FLOOR, CONFEDERATION BUILDING (WEST BLOCK)
P.O. BOX 8700
ST. JOHN'S, NEWFOUNDLAND
A1B 4J6

SUBMITTED BY

INNU ENVIRONMENTAL LIMITED PARTNERSHIP
P.O. BOX 1020, STATION C
HAPPY VALLEY-GOOSE BAY, LABRADOR
A0P 1C0
Tel: (709) 896-2070
Fax: (709) 896-3277

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EXECUTIVE SUMMARY

The 2002 Historic Resources Research Study of the Proposed Trans-Labrador Highway Phase III routing between Goose Bay and Cartwright Junction was undertaken to assess high-potential locations along a wide 10km corridor along the proposed highway route.

The Study consisted of two major programs of research: Pre-Fieldwork Overview Research and a Field Research Program.

Pre-Fieldwork Overview Research included reviews of existing archaeological, ethnographic and geomorphological literature, as well as a program of informant interviews in Cartwright, Happy Valley-Goose Bay, Mud Lake and Sheshatshiu, and air photo analysis. This research generated a large body of general contextual information to assist in the interpretation of the field research results, and also served to identify twelve areas of enhanced archaeological potential distributed along the corridor. These areas (or *Components*) were each characterized by a variety of archaeological, ethnographic geomorphological, or other indicators suggesting high potential, and in most cases identifying a number of specific testing locations within each component which were to be targeted for field investigation.

The Field Research Program included excavation of 3944 testpits at 128 distinct testing locations within these twelve components. As a result of this work, 37 archaeological and ethnographic sites were recorded, two of these dating to the precontact period.

The results of the Pre-Fieldwork Overview Research and the Field Research Program indicate that the proposed corridor passes through some broad zones of high historic resources potential, particularly the Churchill River and the area between the Kenamu River and the western Eagle Plateau. In the central and eastern portions of the plateau the proposed route appears to pass through areas of lesser potential, with the possible exception of the Eagle River crossing. Archaeological potential remains indeterminate on the Paradise River and on the margins of the Lake Melville Plain south of the Churchill River.

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1.0 INTRODUCTION

1.1 Trans-Labrador Highway, Phase III: Goose Bay to Cartwright Junction

The purpose of Phase III of the TLH (Happy Valley-Goose Bay To Cartwright Junction) is to connect the existing segments of the highway between Labrador West and Goose Bay, and between Cartwright and the Strait of Belle Isle, so as to establish a continuous highway linking Labrador West, Happy Valley-Goose Bay, The south-central coast, and the Labrador Straits.

Construction of Phase I of the TLH was completed between Happy Valley-Goose Bay and Labrador West in June of 2000. This was the final section that saw all of the 530 km of highway between Happy Valley-Goose Bay and Labrador City upgraded. Construction on Phase II of the TLH (Red Bay To Cartwright) is nearing completion (scheduled to be 100% complete by December 2002).

1.1.1 Proposed Highway Route

The proposed Phase III of the Trans Labrador Highway between Happy Valley-Goose Bay and Cartwright Junction (WST 2002) would involve construction of a two lane gravel surface highway for an approximate distance of 250 km. The proposed project preferred routing begins east of Muskrat Falls and crosses the Churchill River at Black Rocks approximately 9 km west of the Hamilton Intersection in Happy Valley-Goose Bay. The route then continues southeast for approximately 75 km before turning and traveling slightly northeast for an additional 175 km to join Phase II at Cartwright Junction, 87 km south of Cartwright. Alternative routes described in the original Project Registration appear to have been dropped from consideration, as the Terms of Reference for this Component Study did not call for assessment of Project Alternatives, only of the proposed Preferred Route.

1.1.2 Construction Activities and Project Features

The highway between Happy Valley-Goose Bay and Cartwright Junction will be constructed to a Rural Local Undivided 80 km/hr. (RLU 80) design standard, a similar standard to that of the highway between

Happy Valley-Goose Bay and Labrador West as well as the recently constructed highway between Red Bay and Cartwright. The right-of-way width of an RLU 80 is 40 m. Normally the clearing width is 30 m; however, this will be reduced wherever possible especially around watercourses. The grubbing width will be 20 m rather than the standard 30 m. The road will cross a number of major watercourses or their tributaries, many of which will be crossed using steel culvert pipes. Bridge structures will, however, be necessary at some major river crossings such as the Churchill River, Traverspine River, Kenamu River, Paradise River, and a tributary of the Eagle River.

Proposed Project Features will therefore include:

- 250km of two-lane gravel-surfaced (RLU 80) highway
- Bridge and other stream crossing structures;
- Borrow areas and access roads

1.1.3 Scheduling:

The construction will be carried out in phases over a six year period with the initial phase scheduled for 2003. Subsequent phases will be undertaken in the following five years and the final construction taking place in 2008.

Construction phases will include field surveys, ROW clearing, grubbing, subgrade construction, stream crossing structures, and clean-up and rehabilitation. The general highway corridor has been determined and registered. The precise 40m-wide road corridor will be delineated following completion of detailed aerial photography and the environmental component studies in 2002.

1.1.4 Operations and Maintenance:

As described in the Project Registration document (WST 2002), the road is to be a permanent operation. Periodic summer maintenance will be necessary and will include such activities as grading, ditch cleaning, and repairs to guide rails and road signs. Winter maintenance will consist of snow clearing and application of sand for ice control.

1.1.5 Other Environmental Assessments and Component Studies

In 1999, Phase II of the TLH (Red Bay To Cartwright) was released from Environmental Assessment (EA) process. During the EA process an Environmental Impact Statement (EIS) including component studies was completed by Jacques Whitford Environmental Ltd (JWEL 1998c). This study focused on avifauna, moose, American marten, freshwater fish and fish habitat, historic resources, land and resource use, services and infrastructure, employment and business, and tourism.

Component Studies presently underway for the proposed Phase III route include:

- a caribou study, including aerial surveys and collaring, focused on the Mealy Mountain Caribou Herd (MMCH);
- a raptor survey along the proposed highway route;
- a survey of waterfowl along the proposed route; and
- an historic resources research study (the subject of this report).

1.2 Historic Resources in Labrador

Previous archaeological research in Labrador has focused primarily on the coast, where work has established that archaeological sites are rich and abundant, and the culture-historical sequence long and complex, extending over some 8,000 years. The sequence begins with an initial Palaeo-Indian/early Maritime Archaic occupation in the Strait of Belle Isle(McGhee and Tuck 1975). The early Maritime Archaic occupation(Fitzhugh 1972, 1978a) spread north along the coast to central and then northern Labrador by 7,500 BP (before present). After 4,000 BP coastal Labrador was also colonized by arctic-adapted peoples from the north (Cox 1978) and thereafter, Labrador prehistory is characterized by Intermediate Indian (Nagle 1978) and Recent Indian (Fitzhugh 1978b) occupations interdigitating with Palaeo-Eskimo occupations (Pre-Dorset, Groswater, Dorset), culminating with the arrival of the Thule, ancestors of the modern Labrador Inuit, approximately 700 BP(Kaplan 1983, Fitzhugh 1994) After

approximately 500 BP Labrador also became a focus for European activities, including whaling - initially by Basque whalers in the 16th century (Tuck and Grenier 1989) - fishing, sealing , and fur-trading (e.g. McAleese 1991).

While the coast has seen detailed investigation since the 1960s, rather less work had been undertaken in the interior until relatively recently, in part because of the logistical difficulties, and in part because of perceived difficulties in finding sites in the forested interior. Early work in Hamilton Inlet (Fitzhugh 1972) established that the complex coastal sequence contrasted with a relatively continuous, or at least continual, series of Indian occupations at North West River. Subsequent work in the 1980s and early 1990s was generally limited to rapid surveys along major river systems (e.g. McAleese 1992, 1993) or brief visits to interior lakes (e.g. McCaffrey, Loring and Fitzhugh 1989, McCaffrey 1989, Schwarz 1997b), but even this work led to the discovery of a number of interior sites, mostly pertaining to the Intermediate Indian and Recent Indian periods. Palaeo-Eskimo sites in the interior are scarce at best. Intensive research associated with the Voisey's Bay assessment in 1996 (JWEL, MIBC, and TCC 1997) followed by similarly intensive field surveys in the Churchill Valley for the Churchill River Power Project (IEDE/JWEL 2000, JWEL/IE 2001a, 2001b, 2001c) established that a combination of intensive testpitting and helicopter support can improve the recovery of pre-contact sites in low-visibility forested interior settings.

In addition to archaeological evidence, ethnographic and land-use data indicate that this region is a traditional hunting, fishing, and trapping territory of Innu from Labrador and Québec, and in fact represents one of the core harvesting zones for the "southern" Innu hunting groups from Sheshatshiu. The Eagle River plateau comprises not only a harvesting area, but a nexus of Innu travel routes linking western Lake Melville, Sandwich Bay and the southeastern Labrador Coast, and the lower Côte-Nord. It may be anticipated that this significance extends well back into the precontact past as well, and even the limited archaeological work that has been conducted in the region suggests this is indeed the case.

In addition to Innu land-use in both the precontact and historic periods, this region has also served as an historic harvesting area for Metis families from western Lake Melville, Rigolet and Sandwich Bay, particularly at the eastern and western margins of the Project Area, where Metis trapping is documented along the Churchill, Traverspine, Kenamu and Paradise Rivers, while caribou hunting on the eastern portion of the Plateau appears to have been particularly important for Metis families from Sandwich Bay.

Based on historic documentation and archaeological research, the overall potential of the Study Area varies from extremely low (open bog and steep slope) to high (points of land and river inflows on lakes, major river confluences). Former marine and riverine terraces along the Churchill River and former shoreline of Hamilton Inlet also have demonstrable archaeological potential to yield precontact sites, including those of the earliest, Maritime Archaic, occupation of the region. There remains some uncertainty about the potential of terrace systems at high elevations close to the marine limit; if the "late deglaciation" model (Clark and Fitzhugh 1992) is correct, Maritime Archaic sites could potentially be encountered at elevations approaching 135m asl (meters above sea level). If western Lake Melville was deglaciated by 10,000 BP, then such sites may only be found at lower elevations. Any archaeological data which might clarify the debate about the date of deglaciation could be of considerable archaeological and geomorphological significance.

In summary, it is assumed that additional historic resources will be found in the Project Area. Until further archaeological field investigations are carried out, it is assumed there is a potential for at least a 7500 year sequence of human travel and resource exploitation. Archaeological sites relating to the following cultures maybe anticipated: Maritime Archaic Indian (7500-3500 BP), Intermediate and Recent Indian (3500-350 BP), Historic Innu (350 BP - present), and European/Settler/Metis (350 BP to present). In addition, there is limited but theoretical potential for Groswater Palaeoeskimo (2800-2000 BP), Dorset (2500-500 BP) and Historic Inuit (350-100 BP).

1.3 2002 Historic Resources Research Study Work Scope

The land accessed and affected by the proposed route for Phase III of the Trans-Labrador Highway is the traditional hunting, fishing and trapping territory of Innu from Labrador and Québec, as well as, more recently, Settlers and Metis from both Hamilton Inlet and the Sandwich Bay region. The Eagle Plateau region in particular is not only a traditional harvesting area for the Innu, but also forms the nexus of travel routes linking Hamilton Inlet, Sandwich Bay, and the lower Côte-Nord; one substantial precontact site has already been documented from this region, and it is likely that the region has played a strategic role in Aboriginal settlement for millennia. Much of the area traversed by the proposed route passes through the area of the Akamiuapishk^{u} (Mealy Mountains) Proposed National Park, a clear reflection of the cultural and historic, as well as natural, importance of this region. The proposed preferred highway route will open virtually unimpeded access to an area of Labrador that hitherto was relatively remote. This access could

possibly endanger archaeological and ethnographic sites within the area.

The Guidelines presented by the Client for the 2002 Historic Resources Research Study called for a program of research that would facilitate protection of cultural resources by encompassing a broad area along the proposed route. The study would require a Pre-Fieldwork Research Phase, including literature review, analysis of land use data, informant interviews and air photo and map analysis, aimed at compiling contextual information, as well as identifying the most potentially sensitive areas along the corridor and subjecting these to field assessment.

2.0 HISTORIC RESOURCES RESEARCH STUDY

2.1 Objectives

The 2002 Assessment, as outlined in the Guidelines prepared by the Client, was intended to complete an *Historic Resources Research Study* of a 10 km wide corridor along the preferred proposed highway route between Paradise River and Goose Bay. The objectives were to identify the location of significant historic resources which may lie within this 10 km corridor, particularly archaeological and ethnographic sites in the general vicinity of the preferred route which may suffer indirect impacts as a result of increased public access to this hitherto remote area.

These data are required in order to determine what further survey, mitigation, monitoring, and other Cultural Resource Management measures are required prior to construction, and during ongoing operations and maintenance.

It must be stressed that the defined Project Area for the 2002 Historic Resources Study was broad, and the assessment was intended to identify significant resources which may lie in general proximity to the preferred route, and which may be subject to adverse impacts. This research study was to be distinct from more precise Impact Assessment along the 40m construction corridor, and within borrow areas. This latter is a separate undertaking, to commence once the route and other project features have been finalized.

The specific objectives for the Historic Resources Research Study were thus to:

- complete historic resources assessment requirements for the future environmental assessment of the project;
- predict historic potential in the Project Area;
- identify historic resources within the Project Area;
- understand the regional context of historic resources in the Project Area; and
- complete the background research necessary for the interpretation of historic resources in the Project Area.

2.2 Work Scope

The Historic Resources Research Study was to be carried out in accordance with the Department of Tourism, Culture and Recreation's *Historic Resource Assessment and Impact Assessment Summary guidelines* (January 21, 1992), and also in accordance with the specific Guidelines for this assessment. These latter call for a study to be composed of three major phases:

- *Pre-Fieldwork Overview Research* which will synthesize existing knowledge of settlement and land use and identify specific field testing locations;
- *Field Research* aimed at investigating these preselected locations, along with any further areas of high potential identified in the field;
- preparation of a *Final Report* describing the methods and results of both the pre-fieldwork research and the field investigations.

The Pre-Fieldwork Overview Research Phase was to consist of a program of background research into a broadly-defined *Study Area* encompassing much of southeastern Labrador and the lower Côte-Nord and including air photo interpretations, literature review, inventory of known sites, and land use data. In addition, informant interviews were to be conducted with individuals knowledgeable about recent land use patterns. Results of this work would then be used both to predict and map areas of archaeological potential within the Project Area and interpret any findings that may result from the field assessment;

The Field Research Phase was to consist of a program of archaeological field investigation to collect information on precontact and historic land use. This would be directed at pre-selected locations along a narrower *Project Area* defined to encompass a 10 km corridor containing the proposed Preferred Route for the highway.

The Draft and Final Reports were to summarize the integrated results of the study and provide recommendations and mitigation measures where appropriate; the final report was to be accompanied by data forms and tables in acceptable formats.

2.2.1 The 2002 Pre-Fieldwork Study Area

The *Study Area* (Figure 2.1) for the Pre-Fieldwork Overview Research was defined to encompass all of southeastern Labrador and the lower Côte-Nord lying

- south of the north shore of Hamilton Inlet and the Churchill River west to the mouth of Minipi River,
- and east of the western banks of the Minipi and St-Augustin Rivers.

2.2.2 The 2002 Fieldwork Project Area

The *Project Area* for the Field Research (Figure 2.2) was more narrowly focused on the actual proposed highway route. The preferred route for the Trans-Labrador Highway Phase III leads from Goose Bay, crossing the Churchill River downstream from Muskrat Falls, south to cross the Traverspine River, turning east to cross the Kenamu, climbing to the Eagle Plateau region and continuing east, crossing the Eagle River and various tributaries in various places, then descending to cross Paradise River and connect with the existing highway at Cartwright Junction. The Project Area was defined as a 10 km corridor along the preferred routing for the highway, within which specific high-potential testing locations were to be identified and subjected to field investigation.

2.3 Research Phases

2.3.1 Pre-Fieldwork Overview Research

The Pre-Fieldwork Overview Research was intended not only to provide general contextual information to assist in interpreting Field Research results, but also to identify specific locations for field investigation. It was to consist of four principal components: literature survey; review of Innu land use data; informant interviews; and geomorphological/air photo analysis. Initial preliminary research was undertaken to identify major zones of high potential, and this was followed with more detailed research.

2.3.1.1 Literature Survey

The literature survey was to involve reviewing existing literature on previous archaeological work, ethnographic research, and traditional land use within the Study Area, and in Labrador in general, including review of the Provincial Archaeology Office Site Inventory. The objective was to predict the basic chronology and nature of archaeological remains to be anticipated in the Project Area as well as inventorying any historic resources already known to exist in the Project Area..

2.3.1.2 Innu Land Use Data

Pre-Fieldwork Overview Research was to include a review of mapped data on twentieth-century Innu land use compiled by Innu Nation. The objective was to compile existing georeferenced data that identify known suitable campsites within the Project Area which may have archaeological potential, as well as travel routes and travel route junctions which may also indicate high potential locations.

2.3.1.3 Informant Interviews

Informant interviews were to be conducted with individuals who are knowledgeable about land use and/or the location of archaeological and ethnographic sites within the Study Area. Interviews were to take place with individuals from Sheshatshiu, North West River, Happy Valley-Goose Bay, Mud Lake, and Cartwright. The interview process should allow collection of general contextual land use information, but was essentially targeted at identifying specific locations of traditional campsites, tilts and other cultural and historic features, including any pre-contact sites which may have been identified by local people.

2.3.1.4 Geomorphological/Air Photo Analysis

Review of the existing geomorphological literature was aimed at determining the archaeological potential of various landform types which might be anticipated in the Project Area, particularly those associated with processes of post-glacial rebound and sea level change in the environs of Hamilton Inlet.

Literature review in this instance was to include a survey of existing literature on contemporary ecology and palaeo-ecology in the region.

Air photo analysis was to be conducted in order to identify preserved former marine (and fluvial) terrace features in the Hamilton Inlet area, riverine terrace systems on the major rivers (e.g. the Kenamu, Eagle, and Paradise), and also to identify potentially-strategic locations (dry, level landforms situated at points of land, confluences, and rapids elsewhere in the Project Area.

2.3.2 Field Survey

The principal goals of Field Research were to identify actual historic resources on the ground, in locations potentially subject to indirect impacts resulting from use of the highway, as well as indicating the general archaeological potential along the corridor, thereby assisting in the planning for management and further assessment or mitigation.

The Field Research Phase was to follow the completion of Pre-Fieldwork Overview Research and the identification of those locations along the corridor which would be investigated in the field. Field Research was to involve adequate ground-truthing of the pre-selected testing locations, and adequate testing of additional areas that, based on overflights or boat travel, showed potential for containing historic resources. In other words, the methodology was to be sufficient to confirm predictions on archaeological potential, to verify the presence or absence of historic resources within each specific testing location, and to identify any locations which should be tested but which had not previously been identified during the Pre-Fieldwork Overview Research.

2.4 Summary of Deliverables

The results of the Pre-Fieldwork Overview Research and field investigations were to be recorded and submitted to WST and to the Provincial Archaeology Office (PAO) in acceptable formats. In the case of the Provincial Archaeology Office, these data outputs and their specifications are automatically required as a condition of the research permit. During Project Initiation it was agreed that the Fieldwork and Pre-Fieldwork research could be reported in a single document, rather than the two separate documents originally considered by the Client. Data outputs were therefore to include:

- Transcripts of field notes;

- Completed PAO "Newfoundland and Labrador Archaeological Site Record Forms" and "Artifact Record Forms;"

- Catalogued photographic records of archaeological sites and survey activities;

- Georeferenced historic resources data in a suitable format for incorporation into a Geographic Information System (GIS);

- An "Interim Report" on field investigations for PAO;

- Five copies of a draft report on the research activities, methodologies and results of both the Pre-Fieldwork and Fieldwork research phases (this document);

- Fifty copies of a final report on the research activities, methodologies and results of both the Pre-Fieldwork and Fieldwork research phases; this report constituting or supplemented by

- A report in acceptable format to PAO.

2.5 Client Support

WST support for the Historic Resources Research Study consisted of both logistical and data support.

2.5.1 Client Logistical Support

Logistical support came in the form of arrangements to use the provincial government contract aircraft at Universal Helicopters, Goose Bay. Bell 206L LongRangers fitted with high skid gear to accommodate the canoes were employed to move teams, camping equipment, food and field gear between the various testing areas (or "Components"). The helicopter was also used to resupply teams with food and other supplies on move days.

2.5.2 Client Data Support

In addition to project data, basic data made available to the study teams included past assessment reports on previous phases of the Trans-Labrador Highway, and aerial photography of the Project Area. Precise, recent, low-level photography of the proposed highway route was not available, as the flight lines were still being flown while this study was underway. Available images therefore consisted of 1:50,000 scale black and white imagery taken in the 1960s. Though the scale of these images is not as fine as one might hope, the frames covering the Project Area were at least of generally good quality with a minimum of cloud cover.

2.6 Project Structure

2.6.1 Management Structure

Management for the 2002 Historic Resources Research Study was undertaken by Innu Environmental (IE).

2.6.2 Research Team Structure and Composition

Pre-Fieldwork Overview Research was led by Marianne Stopp in St. John's. The various elements of the research were undertaken jointly by Marianne Stopp (Archaeological and Ethnographic Literature Review, Informant Interviews) and by Fred Schwarz (Innu Land Use Data Review, Geomorphological Data Review, Air Photo Interpretation).Eva Luther of St. Lewis conducted the Cartwright portion of the informant interviews, under the direction of Marianne Stopp. The Field Research, under the overall lead of Fred Schwarz, was undertaken by two teams of three, each composed of one professional archaeologist and two Innu researchers. One team led by Fred Schwarz investigated Components 1, 2, 3, 4, 5, 8, 9, and 11 (for Component descriptions see below), while the second team under Marianne Stopp investigated Components 2, 3, 4, 6, 7, 10, and 12. From a management point of view, the deployment of two teams, and the coordination of their moves between components, served to control helicopter transportation costs.

Study team members are listed in Table 2.1 and brief biographical statements are provided for each member, outlining their relevant experience and expertise, as well as their specific roles in this study.

Participant	Role
Fred Schwarz	Permit holder, land use, air photo and geomorphological research, field team leader, report coordinator, drafting and co-author
Marianne Stopp	Overview research coordinator, informant interview design and interviewer, field team leader, report co-author
Eva Luther	Informant interviewer, Cartwright
Greg Penashue	Interviewer/Translator, Sheshatshiu
Herbert Andrew	Fieldwork Assistant
Darren McKay	Fieldwork Assistant
James Michel	Fieldwork Assistant
Kenny Nuna	Fieldwork Assistant
Samson Pastiwet	Fieldwork Assistant
Rose Marie Penashue	Fieldwork Assistant

Table 2.1 Study Team

Fred Schwarz, Ph.D., specializes in the archaeology and prehistory of the Newfoundland and Labrador interior. Operating Black Spruce Heritage Services since 1992, he has conducted impact and overview assessments, cultural resource inventories and other projects for a variety of clients. Dr. Schwarz served as the study's scientific manager. He undertook the air photo and land use data analysis during the Pre-Fieldwork Overview Research phase of the Study. During the Fieldwork phase he served as one of the team leaders and as the Research Permit holder. Following completion of the fieldwork he was report co-author and the lead researcher responsible for completion of the Final Report, accompanying map materials, and related deliverables.

Dr. Schwarz is qualified to hold an Archaeological Investigation Permit under the *Historic Resources Act*, and has held many such permits for field work in the Province since 1987. He completed an honours B.A. at Memorial University of Newfoundland, an M.A at the University of Calgary, and a Ph.D. at the University of Cambridge. He has been directing field research projects in Newfoundland and Labrador, in Nova Scotia, and in Latin America since 1985. His most recent work in Labrador from 1998-2001 has been as Scientific Manager with Innu Environmental for the Historic Resources Overview Assessment of the Churchill River Power Project. Within the same time period he has served as a consultant to MGI Limited working for the Department of Indian and Northern Affairs on the Sheshatshiu land transfer, and as a consultant for Parks Canada on the human history of Akamiuapishkᵘ Proposed National Park. Prior to this, in 1997 he directed field research on the Eagle Plateau as part of the Archaeological Resource

Inventory of Akamiuapishkᵘ Proposed National Park for Innu Nation and Parks Canada, and acted as field consultant to the Innu History Commemoration Project for the Department of Canadian Heritage. In 1996, Dr. Schwarz undertook an Overview Assessment of Forest Management Districts 19 and 20 for the Newfoundland Department of Natural Resources, and he directed the Regional Context Component of the Voisey's Bay Historic Resources Impact Assessment for the Mushuau Innu Band Council (in conjunction with the LIA and JWEL); this included implementing a training program for 13 Sheshatshiu and Utshimassit Innu archaeological field researchers. In 1995, Dr. Schwarz participated in the Historic Resources Impact Assessment at Voisey's Bay on behalf of Innu Nation and the LIA. Dr. Schwarz has also directed Impact Assessments on the Island, including the Historic Resources component of the Star Lake Hydroelectric Development EIS. His research interests include predictive modelling and field investigation of pre-contact interior settlement in Newfoundland and Labrador, settlement patterns, and the interpretation of interior adaptations and culture history in the region.

Marianne Stopp, Ph.D., acted as overall coordinator of the Pre-Fieldwork Research section of the Study. In particular, she undertook the informant interview and documentary/archival sections of the Pre-Fieldwork Overview Research phase of the Study. During the Fieldwork Section she served as one of the team leaders. Following completion of the fieldwork she coordinated with Dr. Schwarz to work jointly on the completion of the Final Report and related deliverables. Dr. Stopp also served as the principal direct liaison between the research team and the Provincial Archaeology Office to ensure that the work is completed to the satisfaction of the provincial regulators.

Dr. Stopp has been directing field projects for twenty years and has undertaken cultural resource management studies in Newfoundland and Labrador since 1988. Her main areas of research have included prehistoric and historic archaeology of the southern Labrador coast, archival and ethnohistoric research with respect to settlement and land use of Aboriginal and European populations in Labrador, and an ethnohistoric study of food storage among Labrador forager groups. Dr. Stopp completed an Honours B.A. at Wilfrid Laurier University, an M.A. at Memorial University of Newfoundland, an M. Phil. from the University of Cambridge, and a Ph.D. from the University of Cambridge. Other areas of study have included Iroquoian archaeology, the European Pleistocene, taphonomy, and prehistoric adaptive strategies in Europe and North America.

Dr. Stopp has completed research studies for the Government of Newfoundland and Labrador including

comprehensive coastal surveys between Blanc Sablon and Trunmore Bay in 1986, and again in 1991 and 1992. She has also completed cultural resource management work for the Innu Nation, the Labrador Inuit Association, the Labrador Metis Nation, and various government departments. In 1998, Dr. Stopp headed the background research component for the Lower Churchill Hydro Study and led field teams on that project in 2000 and 2001. Further work included a detailed study of Hudson's Bay Company Records pertaining to northern Labrador for the Labrador Inuit Association; a compilation of precontact Indian and Innu sites in Labrador for the Innu Nation; and a study of precontact land use in Voisey's Bay for the Executive Council of the provincial government.

Eva Luther Eva Luther graduated in 1971 as a Registered Laboratory Technologist from the College of Trades and Technology in St. John's. In 1996 she obtained a Certificate in Educational Technology and took part in various craft training and teaching courses including training in oral histories with the Battle Harbour Literacy Council in 1997. Between 1991 - 2000 she worked as a substitute teacher with St. Lewis Academy, and between 1992 - 2000 volunteered both as the computer facilitator at the school, and in the evenings providing Internet access to community members. She has served on the Battle Harbour Literacy Council and in that time conducted interviews and helped produce "Linking the Generations." As well, Eva Luther volunteered for two years with the ArtsSmarts program at St. Lewis Academy and has been involved in many arts-related projects in south-central Labrador. She formed and chaired the St. Lewis ComputerAction Committee from 1996 to 2001, which received the SmartLabrador Community award for two years. Eva Luther has received the Peter's and Son's Craft Award for promoting crafts in the community, as well as the Community IT Hero Award from Industry Canada in recognition of her leadership in facilitating innovative use of information technology in the St. Lewis Inlet region.

Greg Penashue

Greg Penashue is a former President of Innu Nation and former manager of the Sheshatshiu Innu Band Council. He has considerable expertise in acquiring traditional economic and socioeconomic knowledge and in Aboriginal relations. In addition, he has received training in a number of environmental-science disciplines as well as GIS. He served as Environmental Liaison Officer with Voisey's Bay Nickel Company and has participated in numerous environmental field investigations.

Herbert Andrew

Herbert Andrew received refresher and advanced historic resources training for the CRPP in 1999 and

2000 and has worked as an archaeological field assistant in the CRPP Historic Resources Overview Assessment and other projects since 1999. He also participated in the 1998 CRPP fish migration and telemetric studies, and has worked as night security and carpenter.

Darren McKay

Darren McKay received refresher and advanced historic resources training for the CRPP in 1999 and 2000. He has worked as an archaeological field assistant on the CRPP and other projects since 1999. He has also assisted in other environmental data collection programs, including water and chlorophyll, and fish migration, and as an engineering assistant.

James Michel

James Michel completed advanced historic resources training on the CRPP in 2000 and has worked as an assistant in a number of historic resources projects since 2000.

Kenny Nuna

Kenny Nuna completed an historic resources training program during the CRPP in 1998 and a refresher course in 1999. He has worked as an archaeological field assistant in the CRPP and other projects since 1998.

Samson Pastiwet

Samson Pastiwet completed advanced historic resources research training during the CRPP assessment in 2000, subsequently working as an archaeological field assistant on the CRPP and other projects. He has also worked as an assistant in the 1999 Freshwater Mercury Sampling program for the CRPP.

Rose Marie Penashue

Rose Marie Penashue completed an historic resources training program during the CRPP in 1998 and advanced historic resources research training in 2000. She worked as an archaeological field assistant on the CRPP in both years.

2.6.3 Project Narrative

Following the awarding of the Historic Resources Research Study contract to IE, a Project Initiation

Meeting was held on June 18, 2002 and work began on the Pre-Fieldwork Overview Research program..

On June 27, Fred Schwarz travelled to St. John's to conduct Pre-Fieldwork Overview Research, including acquisition of land use data, and air photo analysis. Meanwhile, in May 2002, Marianne Stopp began to make contacts with individuals in Happy Valley-Goose Bay, North West River, Sheshatshiu, and Cartwright in order to compile a list of potential informants. On June 30, 2002, M. Stopp met with Eva Luther in St. Lewis to discuss the informant interview package for interviews to be held in Sandwich Bay; the Cartwright/Paradise interviews were conducted from July 14 - 20, 2002. Between July 21 - August 1, 2002, M. Stopp conducted informant interviews in Sheshatshiu and Happy Valley-Goose Bay. M. Stopp mapped and summarized the results of the interviews between August 2 - August 7, 2002, for use as pre-fieldwork research and for use as reference material during field work. On August 17, Fred Schwarz presented a summary report on the Pre-Fieldwork Overview Research to IE for submission to WST, this report including an outline of the finalized final field plans. On the same date, an Archaeological Investigation Permit Application reflecting these finalized plans was submitted to PAO, and an application for Informed Consent forwarded to Innu Nation.

Following receipt of the permit and completion of one final interview in the Happy Valley-Goose Bay area, fieldwork began with an overflight of the Kenamu River (Component 4)and Uinikush Lake (Component 5) to plan equipment drops on August 21. Archaeological testing by both teams began south of the Churchill River (Components 2 and 3) from August 22-24, during which time canoes and field equipment were dropped at Kenamu River and Uinikush Lake in advance of the arrival of the field teams. On August 25, Marianne Stopp's team deployed to the Kenamu River, and Fred Schwarz's team to Uinikush Lake. Subsequently, Marianne Stopp's team moved by helicopter to additional areas further west: to Component 6 on August 30, Component 7 (September 2), Component 12 (September 4), and Component 10 (September 7), returning to Goose Bay on September 8. Meanwhile, the team under Fred Schwarz moved to Component 11 (August 30), Component 9 (September 2), Component 8 (September 4), returning to Goose Bay on September 10. Both teams working under Fred Schwarz concluded with testing in Component 1 on September 12, and a day trip to Salmon River to complete testing on the Kenamu on September 13.

Demobilization concluded on September 15, 2002.

3.0 METHODOLOGY

3.1 Summary of Overall Research Plan and Objectives

The specific objectives for the Historic Resources Research Study were to identify historic resources and predict historic resources potential within the Project Area based on specific information obtained on the ground as well as on a general understanding of historic resources in the region.

The overall research plan thus consisted of two major research phases, Pre-Fieldwork Overview Research, and Field Research. Pre-Fieldwork Overview Research covering a broadly-defined *Study Area* would assist in compiling general contextual information for use in planning fieldwork and interpreting field research results. Field Research within a narrower *Project Area* was intended to verify the results of Pre-Fieldwork Overview Research, and also to identify historic resources not initially identified prior to fieldwork

Previous large-scale assessment in the Voisey's Bay and Churchill River areas indicates that this type of targeted testing strategy, in which testing locations are carefully selected following detailed background research, can achieve success in recovering archaeological remains in low-visibility forested interior settings.

3.2 Research Component Methodologies

3.2.1 Pre-Fieldwork Overview Research

In addition to developing a general interpretive framework for the research, the Pre-Fieldwork Overview Research was used to develop the survey strategy and identify specific testing locations along the corridor. This is essentially an exercise in predicting archaeological potential. In outline, this process was achieved as follows: first, based on previous archaeological research, geomorphological data, historic and ethnohistoric evidence, informant interviews, and land use data, a series of high-potential testing areas or "components" was defined along the corridor (Here, a testing area or component represents a general area of elevated potential, such as a river confluence or a lake). Second, air photo analysis was employed to identify the specific landforms within each testing area that would be targeted for testing. Subsequently, the Field Research phase would involve intensive subsurface testing and surface inspection at these pre-

selected testing locations, and testing at any high potential landforms encountered in the field, but not previously identified during air photo analysis.

The Guidelines for the 2002 Historic Resources Research Study not only stipulated the completion of a Pre-Fieldwork Overview Research phase, but also identified its principal components, these being: literature survey; review of Innu land use data; review of geomorphological literature; informant interviews; and air photo analysis.

The methods employed for each are described below.

3.2.1.1 Archaeological and Ethnographic Literature Review

The methodology for the literature survey was straightforward, and involved reviewing existing literature, both published and unpublished, on previous archaeological work, ethnographic research, and traditional land use within the Study Area, and in Labrador in general. This survey included review of the Provincial Archaeology Office Site Inventory. There were three primary objectives. Literature review enables the identification of existing sites within the Project Area. Such results in turn provide a template or predictive framework for field reconnaissance and the recognition and interpretation of further sites. These data, particularly ethnographic material, further allow archaeologists to develop a picture of cultural context and strengthen interpretation of the field data.

3.2.1.2 Innu Land Use Data Review

Pre-Fieldwork Overview Research included a review of mapped data on twentieth-century Innu land use compiled by Innu Nation. One objective was to compile existing georeferenced data that reveal broad patterns of land use. The second objective was to identify known suitable campsites within the Project Area which may have archaeological potential, as well as travel routes and travel route junctions which may also indicate high potential locations.

These data include both digitized data from a variety of sources, and also the original 1:50,000 data sheets from the LAMAP land use study. These data include information on travel routes, campsites, grave sites, birthplaces and toponyms, in some cases keyed to additional data on informant name, year(s) or season(s)

of use, etc. The methodology was straightforward, in that the available data were printed or transferred to topographic map copies. On a broad regional scale within the Study Area as a whole, dense concentrations and intersections of travel routes and land use points were identified in order to develop a picture of broad regional patterns of travel and land use. Within the Project Area, clusters of land use points were identified as general areas that might warrant investigation on the ground, and within these clusters, individual documented land use locations were indicated on field survey maps so that they could be located in the field.

Because they include mapped data, the contemporary land use information compiled by Innu Nation are particularly appropriate for background research aimed at developing archaeological field research plans. Previous work aimed at ground-truthing these data (e.g. JWEL/MIBC/TCC 1997, JWEL/IE 2001a, 2001c, Schwarz 1997b, 1998) has established that a significant percentage of indicated campsites are verified in the field, and that a small but significant percentage of these contemporary campsites also yield evidence for prior historic or precontact occupation. These data are therefore a useful and fairly direct indicator of historic resources potential and campsites identified in land use data may be immediately identified as locations worth investigating in the field.

Because they appear tailor-made for assisting archaeological research, land use data do not appear to require any complex analytical methodology. However, this is not to say that there is no interpretation involved in their use. While campsite data are readily verified, travel routes are more difficult to ground-truth; not necessarily because the data are inaccurate, but because they are more difficult to verify archaeologically. Travel route data alone may be highly suggestive, particularly where travel routes form junctions, but may not in themselves indicate specific archaeological site locations. Even the campsite data may include spatial error of several hundred meters or more. Moreover, data quality varies significantly across the Study Area, and even within the Project Area.

3.2.1.3 Geomorphological Data Review

The existing corpus of geomorphological literature, particularly the most relevant material bearing on post-glacial events and sea-level change, is not large. This literature was examined in detail for evidence bearing on the archaeological potential of marine and riverine terrace formation, particularly in the western portion of the Project Area, where the effects of post-glacial rebound on archaeological potential are most acute.

To the extent that alternative models of deglaciation in central Labrador have profoundly different implications for the archaeological potential of various landforms, the objective was to identify field survey programs which could serve to test the alternative hypotheses.

In addition to information on geomorphological research, information was also collected on contemporary ecology and palaeo-ecology within the Study Area with special emphasis on species that would have been easily accessed by precontact hunters and early settlers.

3.2.1.4 Informant Interviews

Informant interviews develop the oral history of a region and its inhabitants and provide a permanent record of information that might otherwise be lost with the passage of time. Documentation of land use and occupancy knowledge helps archaeologists identify places of human land use, and provides background data for locating archaeological sites. Perhaps most importantly, oral histories give social and cultural context to archaeological finds that are normally restricted to technical interpretations. Consequently, the Guidelines for this study stipulated a program of pre-fieldwork informant interviews as part of the historic resources study. Interviews were held among residents of Sheshatshiu, Happy Valley-Goose Bay, Mud Lake, Cartwright, and Paradise who had lived, trapped, hunted, fished, etc. within the Phase III research corridor. Of particular importance were the areas between Goose Bay and the Kenamu River, eastward to the Uinikush area, the Eagle River crossing, and the Paradise River crossing. The purpose of the interviews was to develop a picture of Innu and Settler land use that related to the Project Area, and to update existing Innu Nation land use data for the Project Area. A third purpose of the interviews was to help archaeological teams locate and identify places of land use such as former tilt locations, campsites, fishing areas, hunting areas, trap line runs, boil-up locations, sacred places, and portage routes within the project landscape. A fundamental premise of the archaeological research was that locations that have been used within living memory (such as a portage route or a birding area) may have held the same importance during earlier periods of human occupation.

A set of interviews relating to the Trans-Labrador highway was previously completed among residents of Cartwright (JWEL 1999). The results of these interviews affirm human use of the interior region (for instance, the interviews establish that the Paradise River area was utilized by residents of Cartwright). As research material they remain general in nature, however, and it was recognized that more detailed data

were required to help the 2002 archaeological teams pre-select testing areas and identify potential site locations.

An informant interview package was developed that explained the purpose of the interviews, summarized the culture history of the Study Area, and outlined the methods for planning, conducting, and recording an interview. The package included a questionnaire that served as the framework for information collection. It also included interview summary forms that had to be completed for each interview, interview consent forms for members of the Innu Nation, cassette tapes, and relevant maps. Three methods - topographic maps, paper, and, audio cassettes - were used to gather information.

An assistant interviewer (Eva Luther, St. Lewis, Labrador) who had previous experience in interviewing techniques, was sub-contracted to complete the interviews in Cartwright and Paradise. As part of a training process, E. Luther was introduced to the informant questionnaire and instructed in record keeping. M. Stopp conducted the interviews in Sheshatshiu, HappyValley-Goose Bay, and Mud Lake, with the assistance of Greg Penashue in Sheshatshiu.

Several months prior to the start of the interview process, contacts were made among Innu, Metis, and Settlers in order to compile a list of potential informants. For various reasons, changes to this list were ongoing throughout the interview process. The many alterations in both scheduling and informants affirmed the necessary flexibility of any interview process, a flexibility not always apparent in the structured nature of the informant interview package.

As part of the project partnership agreements, the informant interview package was submitted to the Innu Nation for approval. These same agreements specified that all tapes and interview results of interviews held in Sheshatshiu, including topographic maps, tapes, and all interview forms, be submitted to the Innu Nation on completion of this project. The remaining interview material was to be reported separately and kept on file at the Provincial Archaeology Office.

3.2.1.5 Air Photo Interpretation

Air photo interpretation focused on identifying specific locations of elevated historic resources potential within the area to be affected by the Project, and was therefore not undertaken for the whole Study Area,

but rather was confined to the Project Area.

In the absence of detailed, fine-scale photography for the route, which will only become available in the autumn of 2002, analysis was limited to 1:50,000 black and white photography shot in the late 1960s. Though the quality of this photography can be poor, the Project Area was fortunately covered by relatively clear images with a minimum of cloud cover.

The methodology was again straightforward. Air photo interpretation followed other elements of the Pre-Fieldwork Overview Research and was used primarily to identify precise high-potential testing locations within testing areas ("components") that had already been identified from land use and other data. In other words, air photos covering general areas already identified as having high historic resources potential were examined with the aid of a stereoscope to identify more specific high-potential testing locations. The criteria employed were those identified and tested during the Stage 1 Overview Assessment of the Churchill River Power Project (JWEL/IE 2001c) and include locations of level ground on points of land, at major constrictions in waterways, near rapids and falls, and at river confluences, as well as relict terraces that represent former landforms of these types. In the western portion of the Project Area, along the Churchill River and south toward Traverspine River, air photo analysis was used to identify strategic preserved marine terrace features, using site location criteria established over decades of coastal surveys in Labrador (points of land, saddles, islands) as well as preserved riverine terraces.

While air photo analysis was primarily intended to identify potentially significant testing locations not otherwise identified during analysis of published sources, land use data, or informant interview data, it also proved useful for logistical purposes, in identifying potential helicopter drop-off and pick-up areas for field team deployments.

3.2.2 Field Research

The Pre-Fieldwork Overview Research led to the identification of a number of areas of enhanced archaeological potential based on geomorphological data, land use data, previous archaeological research, archival evidence, and informant interviews. Within each general testing area, a number of specific testing locations were identified on the basis of air photo analysis and review of topographic maps, with further testing locations expected to emerge during the course of field survey.

The principal goal of the Field Research Phase was to verify the predictions made on the basis of Pre-Fieldwork Overview Research, and to identify actual historic resources on the ground, in locations potentially subject to indirect impacts resulting from use of the highway.

3.2.2.1 Definition of Project Components

Pre-Fieldwork Overview Research led to the identification of a series of general areas of enhanced archaeological potential. Each of these areas was targeted for field investigation, and each was characterized by a notable concentration of high-potential locations, such as land use points identified in land use data or informant interviews, and/or potentially-significant preserved landforms, and/or travel route junctions, and/or general indications of concentrated land use or strategic settlement value.

These high-potential testing areas, here referred to as field research "Components," formed the basis for the Field Research plan, both logistically and methodologically. Field Research Components were investigated by two field teams, each composed of one professional archaeologist and two Innu field researchers. In the vicinity of the Churchill River, individual testing locations with each component were accessed daily by helicopter or ground vehicle as appropriate. More remote components were accessed by helicopter, which deployed each field team along with a canoe and equipment. Field teams spent 1-6 days in each component, moving by boat or on foot to identify and access specific testing locations. Field teams were thus supplied with necessary camping equipment and food supplies, and also with safety equipment, including satellite phones for use in emergencies and when scheduling pickups.

3.2.2.2 Fieldwork Methods

On the ground, testing activities involved both close surface inspection and subsurface testing. Close inspection involved close and complete examination of surface exposures in a search for cultural remains. Natural ground surface exposures included eroding banks, blowouts, treefalls, and active beaches. The rationale for close inspection is that where exposures permit, it allows rapid assessment of locations.

General visual inspection can lead to the identification of contemporary or recent ethnographic sites or other testable locations not previously identified during background research, and thus, indirectly, to the discovery of archaeological sites *sensu strictu.* General visual inspection as a survey technique was generally employed by teams during the course of moving between testing locations within broader testing areas, either by boat or on foot.

Generally, however, in forested interior regions, subsurface testing is the only way to locate and confirm

the presence of true archaeological deposits. Subsurface testing involved excavating shovel tests (minimum 20x20cm in size) to sterile subsoil (the B horizon) by means of shovel and trowel. Testing intervals varied according to the potential of the location, density of forest cover, number of surface exposures, distribution of dry level ground, etc., but were generally spaced at 5-10m intervals. Testing programs were generally aligned to track natural linear features such as shoreline or terrace edges, though areal testing was undertaken around contemporary Innu campsites or tilt locations identified in the field. All testing locations were recorded by means of hand-held GPS units where possible, and the number of testpits per testing location was recorded.

Where subsurface archaeological remains were discovered during testing, testing programs adopted a "low-impact" strategy whereby further testing was limited to the minimum needed to define, describe and delimit historic resources to avoid unnecessary site disturbance prior to decisions on mitigation. Artifact collection was kept to a minimum. When archaeological and ethnographic sites were encountered, the distribution of surface-visible features was mapped in relation to positive testpits, negative test units, and topographic features, and sites were photographed and described in field notes.

4.0 ENVIRONMENTAL SETTING

4.1 Physiography

All of the Project Area, and indeed, of southern Labrador, lies within the Grenville Province, the youngest unit (ca. 1 billion years old) of the four major Precambrian geological provinces in Labrador (Rogerson 1981). The ancient east-west structural grain of the Grenville bedrock continues to control relief and drainage in the region, with most of the major lakes and rivers of the region following these trends, as does the orientation of the Mealy Mountains and Hamilton Inlet. Of the major rivers in the region, only the Kenamu crosses the grain for much of its course, cutting the western margins of the Mealy Mountains.

The ancient Precambrian bedrock structure also provided the physiographic framework for the dramatic events of the later Quaternary period, the glaciation and deglaciation of Labrador (and indeed of much of North America).

Glaciation was a complex process, involving a number of phases, and a variety of "centres" of glaciation. During the Late Wisconsinan, much of the Study Area, including the Mealy Mountains, but excepting the coastal areas south of Sandwich Bay and along the Côte-Nord, was overridden by glacial ice radiating outward from a source area west of Labrador City. The movement of glacial ice left its mark on the landscape in the form of erosional features, glacial depositional features (e.g. till deposits, drumlins), and glaciofluvial deposits (e.g. eskers, meltwater channels) (Rogerson 1981, JWEL 2000a).

Deglaciation was similarly complex. The most recent deglaciation of the region began before 10,000 BP in the Strait of Belle Isle (perhaps as early as 14,000 BP; Clark and Fitzhugh 1992), occurring rather later to the north and west, with final disintegration of the ice sheet in the Schefferville area as late as 6,800 BP (Rogerson 1981). Deglaciation had profound effects on the landscape, including extensive outwash along the shoreline, leading to the formation of Porcupine Strand north of Sandwich Bay (Rogerson 1981, Lopoukhine, Prout and Hirvonen 1978). Of broader archaeological significance, though, was its effect on relative sea-levels (see JWEL 2000a), as initial deglaciation and resultant rise in sea-levels led to marine incursion. Along the coastal portions of the Study Area, this was followed by continued eustatic rise in sea-levels (through the introduction of meltwater into the oceans) countered by isostatic rebound of the land mass (resulting from the removal of the weight of glacial ice). The net effect within the Study Area has

generally been one of sea levels reaching an initial high shortly after deglaciation, then progressively dropping through the Holocene to the present day. Former coastal landforms such as beaches, terraces, and spits can thus be found far above and behind the present shoreline. The highest of these help define the "marine limit," the highest former relative sea levels achieved during the marine incursion. Subsequent lower coastal landforms trace the progressive drop in the relative sea level to the present. Archaeological sites formerly established on the coast may thus be found on landforms far from the present shoreline, and to some extent, site age may vary directly with the elevation of the former coastal landform on which it is found. The specific archaeological implications of relative sea level curves in the Study Area are discussed in more detail in Section 5.1.3 below. Broadly speaking, though, the marine limit is both highest and oldest in the Strait of Belle Isle (152 m above modern sea level *ca*. 14,000 years ago, and lower and more recent on the eastern coastal margins of the Study Area (75 m, *ca*. 11,000 years ago in Groswater Bay). Sea level change has been particularly rapid and recent in the upper Lake Melville area, with a drop of 135 m in perhaps as little as 7,500 years (Clark and Fitzhugh 1992).

4.1.1 Major Physiographic Divisions of the Study Area

Central to the Study Area, and occupying much of the Project Area is the Eagle River Plateau, a level to rolling upland of Grenville granites and gneisses with generally low relief, generally ranging from 350-400 m asl with few hills reaching above 550 m asl. The generally organic terrain includes many shallow lakes, most of them drained by shallow, rocky streams tributary to the Eagle River. Major lakes include the extensive lake group near Pepaukamau (Crooks Lake) at the southwestern headwaters of the Eagle River drainage, Nekuanikau ("1155 Lake") to the east, and to the north, closer to the foot of the Mealy Mountains, the extensive lake group centered on Iatuekupau (Parke Lake)

To the north elevations rise, transitional to the Mealy Mountains. Here, rugged ranges of exposed bedrock reaching elevations of 1200 masl are criss-crossed by numerous steep-sided stream valleys following well-defined joints, those oriented east-northeast (like the Kenemich) being generally longer than those cutting north-south (Lopoukhine, Prout and Hirvonen 1978).

The northern margin of the Mealy Mountains is marked by an abrupt drop to the Lake Melville Plain, which surrounds Hamilton Inlet and extends far inland along the Churchill River, and along the valleys of the other principal rivers which debouch in western Lake Melville, including the Traverspine and Kenamu. The Lake

Melville Plain lies below the marine limit and generally close to sea level. Here the original Grenville bedrock and subsequent Precambrian and Cambrian sedimentary rock deposits are now blanketed by relatively young (Quaternary) glacial, marine, and post-marine sediments (JWEL 2000a).

East and south of the Eagle Plateau, Grenville bedrock slopes down toward the coast. Rolling uplands blanketed by veneer till are dissected by the broad valleys of the St. Augustin, St. Paul and Little Mecatina Rivers flowing down to the St. Lawrence, and the lower Eagle and Paradise Rivers flowing east into Sandwich Bay. Glaciofluvial deposits, including terraces, are found on the valley floors (Lopoukhine, Prout and Hirvonen 1978).

4.2 Climate and Vegetation

4.2.1 Modern Conditions

The Study Area encompasses part or all of four climatic zones (Banfield 1981). Much of the Study Area and virtually all of the Project Area belong to the "Interior Labrador" zone (Zone 7) characterized by a continental regime with long, severe winters and heavy snowfalls, and cool short summers in which the greater part of the precipitation falls. This pattern is perhaps most conspicuous on the Eagle Plateau, where freeze-up begins relatively early, break-up occurs late and snowfalls are the highest in Labrador (Lopoukhine, Prout and Hirvonnen 1978) . To the north, Inner Lake Melville (Zone 7a) is similar but with warmer summers and shorter winters. To the south, the southeast Labrador interior (Zone 8) is also similar but less continental, with more of the precipitation occurring in winter. Finally, Zone 9, the coastal fringe of zones 7 and 8, has the most maritime climate in the region, relatively warm for Labrador, with frequent storminess and strong winds; annual precipitation is high with a winter maximum.

All of the Study Area falls within the Boreal Forest Region (Rowe 1972, Lopoukhine, Prout and Hirvonen 1978), but as may be expected, varies according to climate, soils and topography. Some of the most productive black spruce and balsam fir forests are found around Lake Melville, along with well-developed birch and aspen stands on alluvial soils, and extensive bogs on marine clay deposits. Immediately to the south, tree cover is sparse in the Mealy Mountains and limited to sheltered slopes with lichen and alpine shrubs predominating above the treeline. South of the mountains on the Eagle Plateau, poor drainage has led to the development of extensive wetlands, and dense forest is limited to low hills and narrow bands

fringing the waterways. Closed-crown productive spruce and fir forest once more predominates in the valleys of the major river systems south and east of the plateau, such as the St. Augustin, St. Paul and Paradise Rivers; along the Paradise River, burned-over areas are extensive, and these support lichen woodland. Finally, the coastal margins of the Study Area support tundra and forest-tundra vegetation. Forest cover is light and stunted, and limited to sheltered sites, with shrub spruce, fir, willow and ericaceous shrubs in exposed areas.

4.2.2 Holocene Climate and Vegetation Change

Vegetation and climate in Labrador, as revealed in the pollen spectra recovered from peat and lacustrine sediments in the region (Macpherson 1981), has changed considerably over the last 10,000 years, beginning with initial deglaciation and continuing down to the climatic and vegetation patterns seen in the Study Area today. Several of the pollen sequences on which vegetation and climatic history is based were recovered from the Study Area, and indeed, are well-distributed across the Study Area. These include sites in Upper Lake Melville, the Narrows between Lake Melville and Groswater Bay, the Eagle Plateau, the upper Paradise River, and Blanc Sablon. Broadly, these pollen profiles trace a sequence of vegetation change beginning with a preponderance of tundra-type vegetation at all sites ca. 10,000 BP. Between 9,000 and 6,000 BP, Labrador sites in general show a gradual replacement of tundra vegetation by a cover dominated by birch and alder thickets, though by the end of this period, spruce (especially white spruce) and fir were increasingly present on the Eagle Plateau.

The region sees increasing colonization by spruce and fir to 4000 BP since which time vegetation cover was similar to what we see today. By 5,000 years ago, inland sites south of Lake Melville were dominated by boreal forest, though on the coast birch and alder remained widespread. The period 5,500-5000 BP sees a brief peak in the influx of fir pollen, but thereafter boreal forest pollen is increasingly dominated by black spruce until, *ca*. 4,000 years ago, pollen spectra in central and southern Labrador indicate a spruce-dominated boreal forest cover similar to the present day. Thereafter, change is limited, though a relative increase in shrub pollen at the expense of boreal types occurs, along with a marked decline in overall pollen productivity across the region down to the present (Macpherson 1981).

The vegetational history of Labrador in the early and mid-Holocene reflects the progressive disintegration of the Laurentide ice sheet, as initial deglaciation allowed vegetation to colonize the region, while

persistence of the ice cap in western Labrador and the introduction of cold meltwater into the Labrador Sea maintained cool conditions, particularly in northern and central Labrador, despite a general atmospheric warming in the early-mid Holocene. With the final disappearance of the ice sheet, the region finally began to feel the effects of general atmospheric and oceanic warming until, between 4,000 and 3,000 BP, the climatic optimum came to a gradual end and a broad regional cooling trend began, continuing to recent times (Macpherson 1981).

4.3 Wildlife and Other Natural Resources

The Study Area is home to a variety of terrestrial mammals, many of which are or have been harvested for food and/or furs by the Aboriginal and Metis inhabitants of the region.

4.3.1 Ungulates

Caribou, once the only large ungulate found widely throughout south-central Labrador, have been an important traditional food source for the Innu for millennia, and in more recent years for Metis settlers on the Labrador coast as well.

The principal herd found within the Study Area is the Mealy Mountain Herd (Bergerud 1967, Banfield and Tener 1958, Folinsbee 1979, Harrington 1998). Animals of this herd are generally found distributed across the Eagle Plateau in summer. Their winter movements are related to snow cover, and in years of little snowfall they may remain on the Plateau; heavier snowfall sees them move along the lakes leading north into the Mealy Mountains to collect in open areas, and sometimes descending to the shores of Lake Melville. The population of this herd has fluctuated markedly through the last century. Numbers declined, as elsewhere in Labrador, in the second decade of the 20th century, recovered to peak at an estimated 2400 animals in the late 1950s (Bergerud 1967) then declined significantly (Folinsbee 1979), particularly in the last decade; their numbers today are estimated at less than 500 animals (Harrington 1998).

Elsewhere, a small herd of animals wintering in the St. Augustin valley may once have been larger but has now been virtually eliminated by hunting, while caribou wintering in the Dominion Lake/Minipi Lake/Upper Natashquan area may represent animals detached from the St. Augustin or Lac Joseph herds (Folinsbee 1979). On the south coast, caribou are rarely seen today but may once have been abundant winter visitors

in the eighteenth century (Townsend 1911), and there are references to the sporadic winter appearance of caribou in the St.Augustin/St. Paul areas of the Côte-Nord in the late nineteenth and early twentieth centuries, perhaps a result of unfavourable snow conditions in the interior (Folinsbee 1979).

While caribou populations have declined in the Study Area, the distribution and abundance of moose has increased significantly following northward advance from Québec beginning in the 1950's and their deliberate introduction into southeastern Labrador in 1953. They are now relatively common throughout the Study Area and their range continues to expand northward.

4.3.2 Other Mammals

Furbearers from a variety of mammal families such as beaver, muskrat, fox, lynx, marten, ermine, weasel, mink and otter are common and widespread within the Study Area, and have been hunted and trapped by Innu and Metis alike. Beaver, muskrat, mink and otter favour aquatic habitats and may be expected in particularly high densities on the Eagle Plateau. Wolverine, once present in the Study Area, now appears to be extirpated from Labrador-Ungava (Harrington 1998).

Also present in small numbers is the arctic fox, while wolf may also be encountered in association with their principal ungulate prey. Porcupine are found within forested areas. Of the ursids, black bear are common within the Study Area, while polar bear may (rarely) be encountered in late winter or early spring on pack ice or offshore islands on the coastal margins of the Study Area. Their principal prey, ringed and bearded seals, along with harp seals, harbour seals, and other less common pinnipeds, are similarly found on the coastal margins of the Study Area; walrus, once common in coastal portions of the Study Area is now no longer seen. Other marine mammals found in coastal waters flanking the Study Area include a variety of whale and dolphin species.

4.3.3 Waterfowl and Other Avian Species

The Study Area has a relatively rich diversity of bird species, largely as a result of the variety of habitats found within the region (for a detailed review see Harrington 1998). The extensive wetlands found around Lake Melville, in the Porcupine Strand ecoregion and throughout the upper Eagle River watershed provide reasonably good breeding habitat for many species of waterfowl, but in particular, for Canada geese and

black ducks. The extensive wetlands of the Eagle Plateau, which lie at the center of the Study Area and encompass much of the Project Area, represent one of the most important waterfowl breeding areas in Labrador, second only to the Lake Plateau around what is now the Smallwood Reservoir (Goudie and Whitman 1987). Canada geese are widespread and breed throughout the region, particularly on the Eagle Plateau. Other areas with important nesting populations are found about Groswater Bay, including the Flatwater Brook area. The Backway, southern Groswater Bay and the lowlands around Lake Melville also provide staging areas for geese in both spring and fall as well as moulting and feeding areas during the summer. Of the dabbling ducks, black ducks are the most common by far. Like the geese, they nest at their highest densities on the Eagle Plateau and to a lesser extent along Porcupine Strand and along the shores of Lake Melville. Moulting and staging occurs largely in coastal waters about the Study Area, from Lake Melville through Groswater Bay and the Porcupine Strand. The common loon is also found, particularly on inland lakes within the Study Area.

The numerous bays and shallow coastal areas, as well as offshore islands, provide protected habitats for moulting waterfowl and feeding areas for both moulting and staging waterfowl as well as nesting sites for eiders and other seabirds.

The forested areas throughout the Study Area provide nesting habitat for a variety of other species, of which the spruce grouse are particularly important for human hunters. For osprey and bald eagles, the upper Eagle River watershed, with its rich fish habitat, represents the best nesting area within Labrador. The extensive barren uplands of the Mealy Mountains and the coastal hills and headlands provide tundra habitat more suitable to a different subset of species, including rock ptarmigan.

4.3.4 Fish

Fish species found in the lakes and rivers of the Study Area and important for subsistence fishing or recreational angling include salmon, brook trout, ouananiche, northern pike, lake whitefish, round whitefish, longnose suckers and white suckers.

Most of the major rivers in the Study Area support spawning populations of anadromous Atlantic salmon. The Eagle River is by far the most productive of these, and indeed is one of the largest salmon-producing rivers in North America. One tributary in particular (the northern branch of the Eagle Forks) offers large

areas of parr-rearing habitat (Anderson 1985: 133). Even here, however, brook trout are still more abundant. The Paradise, Kenamu, and even Traverspine Rivers support a similar range of species, including salmon. The Kenamu River is a somewhat perplexing case in that the salmon spawning and rearing habitat is exceptional except at the mouth, with the long series of rapids below Salmon River forming only a partial obstruction to salmon escapement. Yet despite this, salmon angling returns are now reportedly low (Anderson 1985). Atlantic sturgeon have also been reported from the Kenamu (Anderson 1985).

Marine fish, including cod, capelin and herring, have figured prominently in the history of subsistence and commercial fisheries along the coastal margins of the Study Area.

4.3.5 Other Resources

In addition to faunal resources, the Study Area offers access to wood for fuel and the manufacture of implements, along with berries and other plant foods/medicines. Available lithic resources for stone tool manufacture in the precontact period appear to be limited to quartzite, in the form of river cobbles, and perhaps also quartz available in veins on exposed outcrops.

5.0 RESULTS

5.1 Pre-Fieldwork Overview Research

5.1.1 Archaeological and Ethnographic Literature Review

5.1.1.1 Introduction

A review of the archaeology and ethnography of the Study Area encompasses all of southeastern Labrador and the Québec North Shore east of the western banks of the Minipi and St. Augustin Rivers. Historical and archaeological records confirm a lengthy human occupation of the Study Area, with an initial Archaic-period occupation in the southern Strait of Belle Isle dating to approximately 8000 BP (before present) (Groison 1985, McGhee and Tuck 1975), spreading northwards along the coast and through the interior over the next 5000 years (Fitzhugh 1978a, Samson 1978, Tuck 1975). This early and lengthy period of Maritime Archaic settlement was followed by a succession of precontact cultures, sometimes overlapping, who migrated into the region from both the eastern arctic and the southern St. Lawrence region.

The Intermediate Indian period (beginning *ca*.3500 BP and continuing to 2000 BP or perhaps even as late as 1200 BP in some regions), is characterized by changes in artifact types and lithic raw materials, and by increased occupancy of the interior. Archaeologists initially divided the Intermediate period into six phases, dated on the basis of site elevation, typological relationships, and a few radiocarbon dates. Two phases, the Brinex Complex (3200-3000 BP) and the Charles Complex (3000-2700 BP), have subsequently been identified at other sites on the Labrador coast, but Intermediate Indian culture history requires further refinement. In general, Intermediate Indian components are characterized by a variety of biface and scraper forms, expedient tools and in some cases, linear-flake/core technology. Raw materials include quartzites, some quartz, and, particularly on northern sites, fine-grained colourful cherts. Comparative Intermediate Indian data for the interior stems from work completed in the Caniapiscau and Mushuau Nipi regions. Although occupation of the interior at this time appears to have been sparse, the quartz/quartzite assemblages and tool types are markedly similar to coastal types, particularly in the predominance of processing tools such as retouched linear flakes and scraper tools (Denton 1988, 1989, Fitzhugh 1972, 1977, Nagle 1978, Nolin 1989, Samson 1975, 1978, 1981, Stopp 1997).

A third episode of human migration occurs between1800-350 BP and is represented by further changes in tool types, lithic types, and land use patterns. This Late Precontact period is characterized by diffuse Indian populations that begin to spread throughout the coastal and interior regions of Labrador-Québec. Exchange networks appear to have been extensive, particularly the trade in Ramah chert, with land use throughout the coastal and interior regions. The identification of Late Precontact assemblages is largely based on diagnostic lithic materials. In the North Shore region, the Late Precontact period is characterized by a mix of pink cherts and increasing amounts of Ramah chert, and is represented by the *Petit Havre* and Longue Pointe complexes. In the interior Caniapiscau regions, to the west of the Study Area boundary, the Late Precontact period is typified by Mistassini-Albanel quartzites, quartz, and increasing quantities of Ramah chert, while in the Labrador region, the Late Precontact period is characterized by assemblages that are comprised almost entirely of Ramah chert. The latter part of the Late Precontact period in all areas is characterized by yet another change in lithic types, with a wider variety of cherts represented in assemblages, particularly pink and white Newfoundland cherts in the Strait of Belle Isle. The late precontact period Indian population is considered ancestral to the Innu of Labrador and the Mameet Innuat of the Lower North Shore (Denton 1998, 1989, Fitzhugh 1978b, Loring 1992, Pintal 1998, Samson 1978, Stopp 2000).

Overlapping with the Intermediate Indian period are Palaeoeskimo population incursions from the eastern arctic. Two arctic cultural traditions entered the Labrador peninsula from the north, the Early Palaeoeskimo tradition and the Dorset (or Late Palaeoeskimo) tradition. During the Early Palaeoeskimo tradition, the earliest Pre-Dorset (*ca.*3800-3000 BP) groups appear to have inhabited northernmost Labrador, while later Groswater populations (*ca*. 2800-2000 BP) settled throughout Labrador as far south as the Bradore region, as well as on the island of Newfoundland. Dorset culture appeared in northernmost Labrador by 2500 BP, persisting throughout coastal Labrador and the island of Newfoundland for nearly two millennia (Cox 1978, Fitzhugh 1972,1977, Pintal 1998, Renouf 1994, Stopp 1997).

A third wave of arctic-adapted people, the Thule, reached Labrador *ca*.700 BP during a period of climatic warming. They brought with them a maritime technology highly adapted to Arctic resource procurement and the hunting of large marine mammals such as whales. Along with float harpoons, kayaks, umiaks, ulus, and large semi-subterranean communal houses, they also introduced to Labrador the dogsled, and a harpoon form different from that of the Dorset (tipped by ground slate endblades rather than the chipped endblades of the Dorset). Essentially, they brought an Alaskan culture to northern and central Labrador.

No definite Thule sites have been recorded south of the Nain area. Thule settlements are characterized by large sod house structures for winter residence, warm season tent rings, rock cairn burial sites, and boulder caches.

By AD 1600 contact with Europeans in Labrador brought about a replacement of traditional technologies, as well as broad-based culture change through the introduction of ceramics and metals, and the eventual geographic expansion southward 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 Inuit, also called "Neo-Eskimo" or "Labrador Inuit." The Labrador Inuit are direct descendants of the Thule, and ancestors of today's Innu population (Fitzhugh 1994, Jordan 1977, 1978, Kaplan 1983, 1985, Schledermann 1976).

Thule populations spread quickly throughout the central Labrador coast, disrupting long established trade networks of the precontact Indian groups, as well as their access to Ramah Bay quarries. Thule presence conceivably ended Late Precontact Indian access to traditional coastal localities as well as the quarries. This, together with possible conflicts between Thule and late precontact Indian groups, resulted in the Indians' withdrawal from the coast to the inner bays and the Labrador interior where they developed the way of life presently associated with the proto-historic and historic Innu.

5.1.1.2 Archaeology of the Study Area - Hamilton Inlet to Strait of Belle Isle

The earliest archaeology in the Study Area were investigations in the Strait of Belle Isle region by T.G.B. Lloyd (1875) in 1873, A.V. Kidder (1927) in 1910, and A.H. Mallery in 1947 (Harp 1963). The first important research-oriented archaeological investigation in that region was by Elmer Harp in 1949 (1951, 1963, Harp and Hughes 1968), followed by surveys and excavations in 1950 and 1961. Harp recorded twenty-five sites in the region between Forteau Bay and Pinware Bay, and introduced the idea of a Maritime Archaic culture, outlining its northward spread over time. Harp's identification of Dorset Palaeoeskimo material led to the recognition of cultural links with the eastern Arctic and with sites on the island of Newfoundland, thus expanding the known territorial extent of the Dorset culture.

In the mid-1970s, Robert McGhee and James Tuck (1975) followed Harp's results in the southern Labrador region with the partial excavation of 14 sites between Forteau Bay and Pinware Bay. Chief

among their contributions was identification of an Archaic occupation in the Strait of Belle Isle. Their revisit to Harp's previously recorded site of L'Anse Amour led to excavation of a spectacular Archaic burial. Radiocarbon dates from L'Anse Amour (7230 ± 140 BP; 6200 ± 160 BP) rank among the earliest dates for human occupation in the Northeast. Following upon McGhee's and Tuck's work were site-specific studies that refined the Archaic cultural sequence in southern Labrador (Madden 1976, Renouf 1976, 1977).

During this same period, extensive archaeological surveys undertaken by William Fitzhugh throughout Hamilton Inlet and Lake Melville delineated Indian and Palaeoeskimo land use and culture change from the Archaic period to the present. Fitzhugh's culture-processual models remain definitive for all of northern coastal Labrador and Hamilton Inlet. Particularly relevant to the current project is Fitzhugh's cultural sequence for the Lake Melville region, which places Intermediate Indian occupation at the beginning of the cultural sequence based on sites around the present community of North West River. Partly contemporary with the Intermediate Indian occupations at North West River is a Groswater Dorset occupation in outer Groswater Bay, dated 2800-2100 BP (Fitzhugh 1972). Fitzhugh's initial research led to ancillary studies in the region, including research into the Intermediate Indian period (Nagle 1978), the Late Prehistoric Indian period (Loring 1992), and the Thule/Historic Inuit (Jordan 1978).

Long-term research relating to the historic period began in the late 1970s. A decade of land and underwater excavations were undertaken at the Basque whaling site at Red Bay (Stevens and Waddell 1986, Tuck 1985, 1986), with occasional surveys for Basque material elsewhere in the Strait of Belle Isle (Vera et al 1986); there were impact assessment surveys (Keenlyside 1985, McGhee 1989), and Reginald Auger's graduate research on Historic Inuit presence in the Strait of Belle Isle (Auger 1985, Pastore and Auger 1984).

An extensive survey of the coast of the Strait of Belle Isle from the Québec/Labrador border to Cape Charles was completed in 1986 (Auger and Stopp 1986, 1989). It included (as part of Auger's thesis work) excavation at the Seal Islands site at Chateau Bay, a late eighteenth century European/Inuit occupation (Auger 1991a, 1991b). The 1986 survey added 74 new sites to the existing inventory of 67 sites, including additional Maritime Archaic sites, early and late Palaeoeskimo sites, Recent Indian material, and historic sites. Later test excavation at one of these sites, Overfall Brook 1 at Forteau Point (EiBf-11), yielded a white chert and Ramah flake assemblage in association with a hearth feature. A date of 1170 ±

90 (Beta 21249) and similarity to materials recovered at the Bird Cove site on the Northern Peninsula indicate a Late Prehistoric Indian occupation (Stopp 2000).

The 1991 and 1992 Labrador South Coastal Surveys extended the 1986 field survey trajectory with a comprehensive inspection of coastline between Cape Charles and Trunmore Bay. Ninety-three prehistoric components and sixty-three historic components were recorded, representing occupation of the south-central coast by Archaic, Palaeoeskimo, Intermediate Indian, Late Prehistoric Indian, and historic groups (Stopp 1995, 1997, Stopp and Rutherford 1991, Stopp and Reynolds 1992).

5.1.1.3 Archaeology of the Study Area - The Québec North Shore

The majority of prehistoric sites along the Québec North Shore have been recorded on the southwest bank of the Blanc Sablon River. Of the Archaic sites, Elmer Harp recorded four in 1964 (Taillon and Barré 1987); Jean-Yves Pintal recorded many more in the mid-1980s, some of these possibly overlapping with Harp's (ibid.). Four radiocarbon dates ranging from 7350 +/- 125 to 7070 +/- 100 BP from the important Archaic site of EiBg-7e attest to the earliest period of Archaic occupation in the Northeast (Groison 1985). A further series of dates based on artifact typology and radiocarbon samples from the excavated site of EiBi-5 attest to Archaic period occupation between 7000 and 4000 years ago (Beaudin et al. 1987).

Sixteen Late Prehistoric Indian components have been recorded on the west bank of the Blanc Sablon River. Three of these sites, EiBg-1A, EiBg-1B, and EiBg-46, have been excavated, with dates ranging from 1000 - 400 BP (Pintal 1989). All are small, discrete surface scatters located across three terraces on the west bank of the Blanc Sablon River. EiBg-11, found by Pintal and excavated by Plumet et al. (1994) yielded a large collection of lithic and faunal material, but no *in situ* layers.

At least a dozen Groswater components have been recorded along the North Shore and reflect the southward expansion of this early, arctic-adapted culture group. Several of these sites have undergone test excavations with radiocarbon dates ranging from 2570 +/- 90 to 2300 +/- 150 BP (Pintal 1994, 1998, Plumet et al. 1994, Taillon et Barré 1989:228-229). These dates suggest that Groswater groups co-existed with Amerindian peoples along the North Shore (Pintal 1998).

Evidence of Late Palaeoeskimo (Middle Dorset) occupation of the North Shore area is virtually nonexistent. A "Dorset" scatter, presumably Middle Dorset, mentioned but not described in Harp (1964) may be the same as EiBg-4, listed in Taillon and Barré (1987:194). Two possible Middle Dorset artifacts have also been collected from EiBg-11, an extensive Late Prehistoric Period Indian site on the west shore of the Blanc Sablon River (Plumet et al. 1994).

5.1.1.4 - Archaeology of the Study Area - the Interior Region

Increasing study of interior regions over the past decade has multiplied evidence of interior land use by Indian groups during the precontact period. Within the Study Area itself, interior research is represented by Fitzhugh's (1972) delineation of the cultural sequence at North West River and by two further research projects. Two of these projects, both conducted in 1997, are the only research projects undertaken to date within the 2002 Study Area. An investigation of the Mishtashini Lake area done by Schwarz (1998) for Parks Canada and Innu Nation recovered evidence of an undisturbed multi-component precontact site, as well as a number of contemporary and historic Innu campsites on the Eagle Plateau. Brief investigations undertaken as part of the Innu History Commemoration Project for the Department of Canadian Heritage (Schwarz 1997b) identified other contemporary Innu camps on Iatuekupau (Parke Lake) and Nekuanikau; historic sites near the mouth of the Kenamu River; and precontact sites at Border Beacon, Notakwan, and Mistastin Lakes.

Historic resource assessments have also increased archaeological inspection of the interior Study Area. An historic resources overview assessment was conducted at the Minipi Lake Practice Target Area south of Goose Bay, Labrador (JWEL 1994). The area examined encompassed an area 177 km^2 approximately 17 km southwest of Minipi Lake. Two days of helicopter and foot surveys (landing and test-pitting at locations with high potential for the presence of historic resources) yielded no archaeological or ethnographic sites. A second assessment was the three-year historic resources overview assessment of the Churchill River Power Project (CRPP) (IED/JWEL 2000; JWEL/IE 2001a, 2001b, 2001c). In terms of survey results, this work led to identification of sites of the Intermediate period along the Churchill River, including several on relict terraces along the estuary in the vicinity of Happy Valley. In addition, one Maritime Archaic site, the first found in upper Lake Melville, was identified on a high terrace system (at ca. 60m above sea level), a portion of the former shoreline of Hamilton Inlet in the Mud Lake area. The CRPP

assessment included survey along a proposed transmission line between Gull Lake and the Strait of Belle Isle, traversing the Study Area. Additional assessments include that undertaken along Phase II of the Trans-Labrador Highway (JWEL 1998a, 1998b, 1999, 2000b), as well as a brief assessment of an outfitter's camp on the lower Eagle River (Reynolds 1996).

5.1.1.5 Review of the Ethnography of the Study Area

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In addition to archaeological evidence, there are published land use and historical data bearing on the Study Area and Project Area. Available Innu Nation land use data indicate considerable recent and historic Innu settlement, especially in the spring and fall, on the major lakes of the Eagle Plateau. Extensive travel networks linked the Eagle River plateau and the Mealy Mountains, extending to more distant locations in Sandwich Bay, Hamilton Inlet, and the Québec North Shore (Armitage 1990, Mailhot 1997, Tanner 1977).

In the mid-17th century, Innu/European contact began in earnest via the fur trade, with the establishment of the *Postes du Roy* and the *Seigneurie de Mingan*. The 18th century saw expansion of the French fur trade posts eastward along the St. Lawrence to Blanc Sablon, as well as the expansion of English fishing, sealing and trading establishments on the south Labrador coast. For our purposes, these records (for summaries, see Tanner 1977, Loring 1992, Zimmerly 1975) do little more than attest to the growing involvement in the fur trade of Innu travelling to the coastal margins of the southeastern Labrador interior. It is clear that the Study Area belonged to the interior hunting and trapping grounds of these Innu, and that they spent most of each year moving through it. Throughout this period, the interior remained remote and relatively unknown to Europeans. Despite its long history, this fur trade only reached its peak of development by the early 19th century; by the end of the century, it was already eroded by encroachment of white trappers from the Labrador coast and Hamilton Inlet (Tanner 1977).

Over the past two centuries, European and Metis from upper Lake Melville, Rigolet, and Sandwich Bay have also exploited the region, trapping along the Eagle, Paradise and Kenamu Rivers, and hunting in the Mealy Mountains and on the Plateau (see Ames 1977, Burt 1980, Davis 1987, Goudie 1991, Kennedy 1995, Rich and Palliser 1980, Tanner 1947).

In the southern coastal area of the Study Area, the descendants of European livyers maintained, until the demise of the cod fishery in 1991, a pattern of seasonal movement between summer fishing homes along the outer coast and winter trapping homes well upriver from the inner coastal zone (Jackson 1982). For example, until the resettlement period of the 1950s and 1960s, residents of present-day Lodge Bay maintained winter homes seven miles inland from the mouth of the Lodge River. Each spring and autumn all possessions, including feather mattresses and stoves, would be moved from one residence to the other (various personal communications, Lodge Bay, 2002). In the 1940s, residents of Chateau Bay spent the winter five miles inland, while in the Straits area a similar pattern prevailed (Tanner 1947:730). Several of today's permanent communities between Chateau Bay and Sandwich Bay are the vestiges of former winter communities, including Mary's Harbour, Port Hope Simpson, Charlottetown, and Paradise. Kennedy (1995) has shown that winter communities far outnumbered summer fishing stations due to dispersal of families during the trapping season, but that resettlement and access to centralized social programs brought an end to most of them.

5.1.2 Innu Land Use Data Review

The principal sources on recent and contemporary Aboriginal and Settler settlement in the Study Area are the two major studies of land-use and occupancy commissioned by the Labrador Inuit Association (Brice-Bennett 1977) and by the Innu Nation (Tanner 1977; Armitage 1990) in support of land claims. Collection and compilation of contemporary land-use data is in both cases an ongoing process. Though the two studies differ somewhat, both present similar types of interpretation. Both provide an archaeological and historical background to contemporary Innu and Settler/Inuit settlement in the region. Both discuss recent and contemporary land-use, illustrated with maps indicating known traditional campsite locations, resources, and harvesting areas. Both also discuss the cultural and spiritual significance of the land, and of Aboriginal land-use. In both cases, aside from the archaeological and historical sources, the principal sources of information consist of interviews with local informants on seasonal harvesting and other activities. To some extent, these land-use data overlap with the ethnohistoric and ethnographic material discussed above, since much of the ethnographic research in Labrador has been conducted within this century. However these land-use studies differ from other accounts in two important respects. First, the information has been collected relatively systematically, and second, it was originally collected, in part, and presented, in the form of maps. Maps of individual hunter-histories were generated, and subsequently compiled into

composite maps of regional land-use. As a result, these data on Aboriginal land-use are significantly more precise geographically than any other sources. This fact makes them particularly useful for indicating archaeological potential in map form, and the land-use studies contributed greatly to the compilation of the maps of archaeological potential presented here.

It is important to note that the geographical scope of both studies does not correspond precisely to the Study Area. In the case of the Inuit (Brice-Bennett 1977), much of the documentation pertains to the north coast, but there is a general archaeological summary which includes Lake Melville and Groswater Bay (Fitzhugh 1977), and some discussion of the historic Inuit occupation of this same region (Jordan 1977). In addition, the community land-use report on Rigolet (Ames 1977) deals with settlement and land-use extending into the northeastern corner of the present Study Area though not closely approaching the Project Area.

It is the discussions of Sheshatshiu Innu land-use (Tanner 1977; Armitage 1990) which are most relevant to the present study. The principal shortcomings in these studies are the gaps in land-use data for the southern and southeastern portions of the Study Area. Along the south coast of Labrador, Innu settlement has become progressively reduced through the historic period, as European settlement along the coast has expanded. Though Innu activity in, for instance, the Cartwright area, is known to have continued well into this century, it is not well-documented, and certainly not well-mapped. The situation in the southern portions of the Study Area is somewhat different. Here, Innu continue to travel, camp and harvest, but this area is exploited both by Innu based today in Sheshatshiu, and by Innu based in communities on the north shore of the St. Lawrence. Since available data present only Sheshatshiu Innu land-use in any detail, our picture of contemporary and past land-use in this region must be considered partial and incomplete.

The eastern portion of the Study Area including Sandwich Bay represents a real lacuna in both the Innu Nation and LIA datasets. Kennedy (1995) discusses Metis land use on the south coast but detailed land use data collected by the Labrador Metis Association remain unpublished and unavailable. This is one reason the informant interview program for the Historic Resources Research Study placed particular stress on collecting information from the Cartwright area.

Innu land-use data pertaining to this century have been collected in some detail (Tanner 1977, Armitage 1990, Mailhot 1997) and are widely available, at least in outline. Tanner argues that Innu families from Sheshatshiu tended to live in one of five harvesting areas lying to the north, west, and south of the community. He notes that families traditionally operating around the headwaters of the Eagle, Kenemich, St. Augustin and St. Paul rivers tended to trade at a number of coastal locations, principally North West River, but also St. Augustin and, until the 1940s, Sandwich Bay. Families would travel to the plateau area via Kenamu River from North West River in August, move north into the Mealy Mountains to hunt caribou in fall and spend the winter dispersed across the plateau. Some might travel to North West River or St. Augustin for Christmas. Spring saw families gather to fish and hunt waterfowl on the Plateau before returning to the coast in summer. This pattern continued through the first half of this century, though with more and more time spent on the coast, until the requirement to keep children in school at North West River limited family movements to the immediate hinterland of Lake Melville.

In 1973, with the development of the Outpost Program, families began travelling seasonally to the plateau once again, this time by air. Favoured destinations are now Iatuekupau and the Mistassini area, and winter/spring are presently the seasons of most intensive occupation. It is important to note that these destinations are favoured in part because they are suitable lakes for landing floatplanes, a constraint which did not formerly enter into Innu settlement and harvesting decisions. Thus, today, Innu land-use within the Study Area consists of seasonal settlement, oriented primarily toward hunting migratory waterfowl, fishing, and hunting/trapping of small game such as beaver, muskrat, marten and otter. Most of the families who use the area come from Sheshatshiu, and access is usually by air from the floatplane base at Otter Creek. Occasionally, individuals and families from St. Augustin also harvest game in this area (see Deschênes 1983), often travelling through the region by skidoo.

As a resource for guiding archaeological research it is the mapped data underlying the published studies which are particularly useful. Mapped data on Innu land-use in the region was collected and mapped during the course of the ambitious LAMAP project in 1980, as well as in a number of projects since then. Much of these data have been digitized. The resulting maps provide a critically important resource on the distribution of recent and historic Innu travel routes, campsites and other cultural features. These data include maps of harvesting areas in the 1980s (Armitage 1990) and show, for instance, significant areas for harvesting migratory waterfowl, furbearers, small game, fish, wildfruits, as well as bear and caribou kills,

on the major lakes of the Eagle Plateau and around Carter Basin and the lower Kenamu. The southern shore of Lake Melville generally sees the harvesting of small game and fish, with the area around Etagaulet Point a particular locus for harvesting small game, fish, waterfowl and caribou. The *published* mapped data cover a relatively broad timespan, but many data come from the relatively recent past, following resettlement and the beginnings of the Outpost Program. As a depiction of contemporary land-use they should be considered suggestive but not necessarily comprehensive. Data quality also varies between the various datasets. In general, the LAMAP data are the most voluminous, containing the greatest number of travel routes and datapoints; unfortunately, these points and lines are not data-rich; there is generally no indication of the period(s) or season(s) in which a location saw land use, and in the case of the point data there is no indication what land use activity each point represents, though it may be assumed the majority are campsites. Map data collected subsequent to LAMAP are generally documented in greater detail, the shortcoming being that the data collected in smaller studies naturally include fewer points and fewer travel routes.

This said, the mapped data indicate dense travel routes, principally following the major waterways, including the following found within, near, or intersecting, the Project Area:

- the Churchill River;
- the Kenamu;
- leading from the Kenamu up to the Eagle Plateau by a number of routes, especially via Uinikush Lake;
- the major branches of the Eagle River from Mishtashini and Pepaukamau to Nekuanikau;
- leading north from Kamishekemat to Iatuekupau;
- The Eagle River from Nekuanikau eastward;
- The Eagle River from Eagle Forks north to Iatuekupau
- leading from the Eagle River south to the St. Paul headwaters;
- the Paradise River.

Additional travel routes lead to and through the Mealy Mountains from north, west, east, and south, south to the St. Augustin River from Pepaukamau, and from Nekuanikau south to the St. Paul River.

Certain locations also present notable concentrations of campsites as well. The proposed highway, and therefore the Project Area, appears to have been routed to avoid the largest concentrations of campsites, which lie on the largest plateau lakes: Iatuekupau, the Mishtashini-Pepaukamau area, and to a lesser extent, Nekuanikau. However, smaller clusters of campsites are found on smaller lakes within the Project Area, most notably Uinikush, "Little Parke Lake," and Mestekaumau. More remote campsite clusters within the Study Area are found on Minipi Lake, Mud Lake, Carter Basin, Etagaulet Bay, and most of the lakes in and around the Mealy Mountains.

5.1.3 Geomorphological Data Review

It was in the Churchill River area that the geomorphological data were most relevant to providing background to field assessment**.**

In the western Lake Melville area the marine limit (the highest sea-level achieved shortly after deglaciation) lies at 135 m above present sea level. Thereafter, owing to isostatic rebound, relative sea levels dropped, initially very rapidly and then more slowly through the Holocene. This process, which began shortly after deglaciation, was still occurring when the first human colonists arrived in western Lake Melville (certainly by 4,000 BP and potentially by 7,500 BP) and continues to the present day. As a result, archaeological sites once located on the shoreline will now be found at high elevations above present sea level, and sometimes at considerable horizontal distance from the present shoreline. Moreover, earlier sites will generally be found at higher elevations than more recent ones. Archaeologists working in coastal and former coastal regions of Labrador have been familiar with this process and its archaeological implications for many years. However, the situation in western Lake Melville is rather more complex, primarily because the date of deglaciation is not clearly established. Two alternate models place deglaciation of western Lake Melville at ca. 10,000 BP (Fulton and Hodgson 1980) or as late as 7,500 BP (Clark and Fitzhugh 1992) and at present the data are insufficient to choose between them (JWEL 2000a). The archaeological implications are important; if the "late" model is correct, human occupation of the area may have occurred

when sea levels were at or close to marine limit, and the earliest archaeological sites may be encountered at elevations approaching or exceeding 135 m asl. If the "early" model is correct, then even the earliest coastal sites will only be found at much lower elevations. Part of the difficulty in resolving the geomorphological debate is that sea level curves are constructed in part on the basis of archaeological data; since all known sites in the area are less than 4,000 years old, and most are less than 3,500 years old, only the latter portion of the curve is well-defined. It is possible that it will be archaeological data that eventually resolve this geomorphological debate; specifically, the recovery of Maritime Archaic sites in Upper Lake Melville at elevations approaching 135 m would serve to verify the "late" deglaciation model, while recovery of any Maritime Archaic sites at any elevations greater than 50 m would at least assist in firming up the relative sea-level curve for the region.

5.1.4 Informant Interviews

5.1.4.1 Introduction

The informant interviews were initiated to collect information leading to potential site locations within the field survey components, and to provide added cultural context to the interpretation of these locations. Thus, the oral histories collected for the Kenamu River, the Uinikush Lake area, the Keupash-nipi area, and the trapping area between the Eagle River and the Paradise River, each represent discrete land use data specific to the individual survey components. Taken together, they tell something of the nature of human land use in the Project Area, of the distances people travelled to reach winter trapping and camping areas, and of the rationale for camping in certain areas rather than others. For an archaeologist, the oral histories identify areas of cultural potential, where to search for sites, and they are strong indicators of the nature of the cultural remains to be expected at any given location. As a body of data, the interviews contributed valuable information towards an understanding of the history and nature of resource harvesting and occupation in the Project Area. They provided sufficient data to pre-select testing areas along the Kenamu River, and to identify the Uinikush Lake and Keupash-nipi regions as testing components. Field testing in these areas proved to be quite successful and demonstrated the validity of both the interview information as well as of the interviews as pre-fieldwork research.

Comparison of these oral histories with data from before the 1960s suggests that the nature of land use has changed considerably. Most evident is that fewer people are harvesting resources in the interior than they did in the past. Those who do, spend considerably less time in the interior than their parents' and grandparents' generation. The use of the skidoo has increased areas of coverage while eliminating the need for the traditional series of tilts spread along the route (today, the canvas camp travels with the trapper). The skidoo has also made it possible to return to one's community on a regular basis, rather than remaining at a winter camp or on a trapline for three months. The Outpost Programme, introduced to fly Innu to autumn and winter land use areas, brought an end to the long-distance overland treks by canoe and on foot that were common up to the period of permanent settlement. This is not to say, however, that land use of the Project Area is insignificant; fishing, hunting, and trapping occurs annually between Goose Bay and the Paradise River, and will undoubtedly increase with the construction of the Phase III highway.

Twenty-four interviews were held, with a gender breakdown of five women and nineteen men. Nine interviews were held in Cartwright and Paradise, one held in Mud Lake, six in Happy Valley-Goose Bay, and eight in Sheshatshiu. Of the informants, not all were necessarily trappers or hunters, nor were all informants still actively involved in trapping or hunting. All trapping areas discussed during the interviews were not necessarily directly within the Project Area. In other words, not every interview provided the perfect mix of data regarding extended land use within the project corridor.

Of the female informants, two from Sheshatshiu had a long history of travelling into the interior with their husbands and families, and participating fully in householding and processing of resources from these camps, as well as some resource harvesting. Another woman in her late eighties, one of the older residents of Happy Valley-Goose Bay, contributed valuable historical context to the information provided by other informants, and was able to confirm geneology and time frames. A woman from Paradise, while not a trapper, had, as a young girl, travelled between Separation Point, in Sandwich Bay, and interior camps with her parents who overwintered in the interior. A fifth woman from Cartwright still maintains her own trap line in the Paradise River region.

Among the male informants, only one had *never* participated in interior resource harvesting, but he contributed some of the more valuable data on the historical ownership of trapping lines, or trapping berths, throughout the Kenamu River system. Of the men from Sheshatshiu, all had trekked and canoed into the Project Area prior to the Outpost Programme, most as young boys but a few as adults as well. Two of the oldest men from Sheshatshiu, both in their late 70s, were of the generation that made extended overland treks throughout south-central Labrador, covering the region between St. Augustin on the Québec North Shore, northwards to Sandwich Bay to trade at the Hudson's Bay post, and then westward into the Eagle Lake plateau for further trapping - sometimes spending up to a year in the interior. Of the remaining male informants from Happy Valley-Goose Bay and Cartwright, all had trapped within the Project Area as boys and continued to do so as adults, with the exception of an eighty-year old man from Cartwright who had of late years moved his trap line closer to home.

The informant interviews held in Shetshatshiu resulted in valuable land use information for the Kenamu River area (Component 4), Uinikush Lake region (Component 5), and Keupash-nipi (Component 6), and equally valuable negative data for the Eagle River forks region (Component 8).

5.1.4.2 Summary of the Shetshatshiu Interviews

Innu who traditionally overwintered in the Eagle River plateau region would leave from Shetshatshiu in August by canoe, heading either to the mouth of the Kenamu River or to the mouth of the Traverspine, where they would follow overland routes. This first leg of the journey to the interior could take upwards of four weeks, with families hunting and camping along the way. Once at the Kenamu River, an arduous stretch of portaging and poling eventually brought them to the confluence of the Salmon and Kenamu Rivers, where a camp was set up on the northeast bank. Innu reached this campsite in time for the salmon spawn in early September, where they smoked supplies of split salmon for winter consumption, and manufactured snowshoes, moccasins, and clothing for winter use. Scaffold caches would be built at this camp to store canoes and other gear for the return journey in spring. Families remained at this camp until late autumn, moving further eastward following two possible routes. One route headed south, following

the Kenamu upriver for several kilometres of rapids and shallow water. A portage on the east side of the river, at the proposed crossing of the Phase III highway, permitted respite from particularly difficult rapids. The journey then took them to Little Drunken River and a caribou hunting region locally known as "Mountain Range" (this travel route closely follows the proposed highway routing, and several campsites are indicated near an esker on a small lake along the highway corridor) The second route followed the Salmon River east, the travellers leaving the river halfway along its course and heading towards Uinikush Lake.

Until the mid-1960s, Uinikush Lake was a popular winter camping area, where people harvested small fur bearers such as mink, pine marten, rabbit, fox, and occasionally hunted caribou. Families remained here until springtime break-up. Camps were erected at several points around the lake, with many traplines throughout the area. One known trapline extended between Uinikush and Keupash-nipi to the east, a map distance of approximately eight kilometres.

Keupash-nipi was also a well known winter camping area. One informant stated that there were so many traplines extending from its shores that he was unable to show them all on a map. Two main camps were indicated by the interviews, one on the southwest shore, and a second on the southeast shore.

Further interviews revealed that the Project Area was criss-crossed by travel routes, and that some overland travel occurred within the region even when camps were brought in by float plane. There is only distant memory of land use in the areas east of Component 6. Two informants, now aged 70 and 79, recalled travelling through the Eagle River forks region as boys, but stated that this was not a favourable resource area/camping area because of steep banks, fast water, and scarce resources. Two other informants indicated that Innu had hundreds of camps in this region over the years that were of both short-term and longer-term (1-2 months) duration. They noted that the proposed highway between Uinikush and Eagle River bisects mainly travel routes into, and out of, the Mealy Mountains. The Mealy Mountain plateau was a favoured hunting area, and because it was open terrain, afforded the quickest way to travel both to Lake Melville and to Sandwich Bay. Travel routes south of the Mealy Mountains had as their

destinations important settlement areas on the big lakes such as Nekuanikau and Kamishekemat.

5.1.4.3 Summary of the Mud Lake and Happy Valley-Goose Bay Interviews

Informants from these communities had a history and/or knowledge of land use in the Kenamu River region. Each informant traced ancestry to the Mud Lake area and had fathers and grandfathers who had trapped along the Kenamu River and adjoining waterways. Descendants of the earliest Best and Goudie families still trap along the Kenamu River today, while the White family from Mud Lake, who trapped along the lower sections of the river, have died out; that area is no longer trapped. Other families associated with lower stretches of the Kenamu include the MacLeans and Michelins. Family names associated with that stretch of the Kenamu within the Project Area are Goudie and Best. Informants were able to map some of the trap lines of the earliest trappers such as Douglas Best and Henry Best, who both trapped westward towards the Traverspine and eastward into the plateau region, as well as along the shores of the Kenamu. In some cases, informants knew the location of the tilts of these former trappers, and one informant knew a great deal about the Innu camp on the northeast bank of the Salmon River. Contemporary trappers tend their trap lines by skidoo and use canvas camps, although one of the younger trappers maintains a camp in the Easter Point region, south of the crossing of the Phase III highway. Interviews also established the location and history of a former fish camp, now in ruin, built at Pleasure Steady in the early 1970s to take advantage of the September salmon spawn, which declined about that time.

Prior to skidoo-assisted trapping, trappers would move inland in the autumn by canoe, or walk in on cut trails from Mud Lake. The walk would take 5 – 6 days and the canoe trip often longer because of continuous rapids. Each trapper had a main campsite, or tilt, on the river, and trap lines ran from these main camps inland for the distance of a winter day's journey on snowshoes, where a second tilt was built. Longer trap lines had a tilt built at the end of each day's section for the entire length of the line. Trappers often travelled inland together at the beginning of the season, and then separated when they reached their respective main tilts. Their trap lines often met or adjoined, which allowed contact and a measure of safety. Trappers often made the trip back to Mud Lake for Christmas, and in late January returned inland using wooden sleighs, sometimes with a single dog. Provisions were simple, and included flour, lard, sugar, salt,

baking powder, rice, and meat came from snared rabbits and partridge. Gear included matches, candles, first-aid, axes, gun, sleeping bag, tent and stove.

5.1.2.4 Summary of the Cartwright Interviews

Trappers from Cartwright traditionally, and into the present day, covered extensive portions of the region between the Eagle River plateau and Paradise. All major rivers such as the White Bear and the Paradise have been used by Cartwright trappers since the introduction of skidoos, including the Eagle from its mouth inland as far westward as Lake 1155 and Parke Lake. Also trapped are many minor river systems with local toponyms, and the wide expanse of bog and streams between the Eagle River and the Paradise River, known as the Gros Meshes. Tilts have been out of use for many years now, although a few trappers presently have a main cabin at the former site of an ancestor's main tilt. The proposed Phase III highway bisects trap lines at several points between the Eagle River and the Paradise, but no main camps of Cartwright trappers appear to be within the highway corridor.

Older trappers from Cartwright have a good recollection of their parents' and grandparents' winter trapping practices, which followed the same pattern (a string of tilts a day's journey apart) as described for the Kenamu River, and extended throughout the winter months. Due to the long distances trapped, food and equipment caches were sometimes placed at key locations along travel routes and trap lines. The caches used by Cartwright trappers in the past few decades were 35 gallon oil drums containing necessary goods, often placed atop scaffolds as a safety measure against bears.

5.1.5 Air Photo Interpretation

Air photo analysis was primarily used to assist in identifying specific testing locations within areas which appeared to show high potential based on other Pre-Fieldwork Overview Research. In other words, air photo analysis was used not to define project components, but to focus survey effort within these components. In practice, air photo analysis proved rather unsuitable for identifying testing locations in half of those components (specifically, those representing plateau lakes), where potentially habitable areas were generally small, and where the resolution of the available photography was sometimes inadequate to

distinguish habitable areas at all.

Elsewhere, air photo analysis proved extremely useful primarily in identifying high potential terraces in those components where terrace systems exist: the major river crossings at the Churchill, Kenamu, Eagle and Paradise Rivers. Air photo analysis led to the identification of all of the testing locations in Components 1-3, around the Churchill River. Here, air photo analysis allowed the identification not only of riverine terraces formed by the Churchill River, but also marine terraces formed at higher elevations in the early and mid-Holocene. Air photo analysis of the Kenamu River showed that this stretch at least also contained easily-identifiable alluvial terraces, and this was even more true at the Paradise River crossing, where forest fires have denuded the terraces, making them even more recognizable from the air. Air photo analysis also proved useful at the Eagle River crossing; terraces as such are not conspicuous here, but air photo analysis did indicate the existence of quite extensive potentially habitable riverbank segments at the forks and at the principle rapids to the east and west.

5.1.6 Identification of Field Survey Components

Pre-Fieldwork Overview Research led to the identification of twelve areas (or "Components" located along the Project Area which presented one or other type of evidence for high potential, and which offered multiple specific testing locations for the field teams to investigate. These included both banks of the Churchill River (Components 1 and 2), as well as the margins of the Lake Melville Plain south of the Churchill River (Component 3). The principle rationale for investigating testing locations in these components was the theoretical potential for early precontact sites in locations identified through geomorphological review and air photo analysis. Informant interview results, land-use data, and literature survey all indicated high potential at the Kenamu River crossing (Component 4) and, along with air photo analysis, indicated a variety of specific testing locations. Informant interviews and land use data similarly indicated high potential for sites on Uinikush Lake (Component 5). The small lake named Keupash-nipi (Component 6) and the long narrow lake west of Uinikush (Component 11) were targeted for field investigation solely on the basis of informant interview results, while "Little Parke Lake" (Component 7) and Mestekaumau-nipi (Component 10) were targeted because of LAMAP land use data. Two of the

major river confluences in the Project Area, Eagle River Forks (Component 8) and the Paradise River Crossing (Component 12) were

targeted for investigation primarily because confluence and rapids locations have a generally high theoretical potential. In both instances, Pre-Fieldwork Overview Research produced general indications of land use; in the case of the Eagle River Forks these were ambiguous in that land-use data indicated (a few) specific potential site locations, yet informant interview results were pessimistic. Finally, the Eagle Tributary Crossing (Component 9) was selected for survey on purely theoretical, speculative grounds. Pre-Fieldwork Research results indicated no specifically high potential, but data are sparser in this portion of the Project Area and as a major tributary it had some general potential for settlement.

The twelve Field Research Components, along with the Pre-Fieldwork rationales which led to their selection, are summarized in Table 5.1. The geographic distribution of Components along the Project Area is indicated in Figure 5.1. Details of the field survey activities and results for each Component Table 5.2) are presented in the following sections.

Component	Location	Primary Rationale	Secondary Rationale
1	Churchill River Crossing, North	Air Photo, Geomorphology	Theoretical
2	Churchill River Crossing, South	Air Photo, Geomorphology	Theoretical
3	Churchill-Traverspine	Air Photo, Geomorphology	Theoretical
4	Kenamu River Crossing	Literature, Informant Interviews	Air Photo, Land Use Data
5	Uinikush Lake	Land Use, Informant Interviews	Literature
6	Keupash-nipi	Informant Interviews	
7	Little Parke Lake	Land Use Data	
8	Eagle River Forks	Theoretical	Air Photo, Land Use Data
9	Eagle Tributary	Theoretical	
10	Mestekaumau-nipi	Land Use Data	
11	Uinikush West Waterway	Informant Interviews	
12	Paradise River Crossing	Theoretical	Air Photo, Land Use Data

Table 5.1 Field Research Components and Overview Research Rationale

Component	Testing Locations	Testpits	Findings	Sites
1 (Churchill River North)	2	302	Nil	n/a
2 (Churchill River South)	4	560	Nil	n/a
3 (Churchill-Traverspine)	3	238	Nil	n/a
4 (Kenamu Crossing)	16	633	Axe-cut trees, portage trail; Axe-cut stumps and poles; Axe-cut stumps and logs; Plywood marten trap housing; Abandoned fish camp; Marten trap housing and cuttings; Collapsed tilt and debris; Subsurface lithic debitage; Clearings, cut stumps, trap	Kenamu 8 (FfCa-01) Kenamu 2 (13C/16 Ethno-01) Kenamu 3 (13C/16 Ethno-02) Kenamu 4 (13C/16 Ethno-03) Kenamu 5 (13C/16 Ethno-04) Kenamu 6 (13C/16 Ethno-05) Kenamu 7 (FfCa-02) Utshashumeku-shipiss 1 (FfCa-03) Utshashumeku-shipiss 2 (13C/16 Ethno-06)
5 (Uinikush Lake)	27	465	Three campsites, caches, debris, trail; Three campsites, cut trees; Five campsites, plank canoe parts; Low-cut stumps, clearings, trail; Trail of axe-cut trees; Two campsites, debris; Three clearings, cut stumps; Two clearings, low-cut stumps; Tent site, two clearings, debris; Subsurface lithic debitage; Low-cut stumps, portage trail; Low-cut stumps, clearings; Cut stumps, cached plastic canoe	Uinikush 1 (13B/13 Ethno-23) Uinikush 2 (13B/13 Ethno-24) Uinikush 3 (13B/13 Ethno-25) Uinikush 4 (13B/13 Ethno-13) Uinikush 5 (13B/13 Ethno-14) Uinikush 6 (13B/13 Ethno-15) Uinikush 7 (13B/13 Ethno-16) Uinikush 8 (13B/13 Ethno-17) Uinikush 9 (13B/13 Ethno-18) Uinikush 10 (FfBw-01) Pakatan Uinikush 1 (13B/13 Ethno-20) Pakatan Uinikush 2 (13B/13 Ethno-21) Pakatan Uinikush 3 (13B/13 Ethno-22)
6 (Keupash-nipi)	9	35	Tentpoles, stove supports; Axe-cut stumps; Axe-cut stumps, possible clearings; Campsite, debris, cut stumps, trails; Two campsites, debris; Tent clearings, debris, cut stumps; Axe-cut stumps	Keupash-nipi 1 (FfBv-01) Keupash-nipi 2 (FfBv-02) Keupash-nipi 3 (13B/13 Ethno-10) Keupash-nipi 4 (FfBv-03) Keupash-nipi 5 (FfBv-04) Keupash-nipi 6 (13B/13 Ethno-11) Keupash-nipi 7 (13B/13 Ethno-12)
7 (Little Parke Lake)	15	44	Decayed axe-cut stump	Little Parke Lake 1 (FfBs-01)
8 (Eagle River Forks)	13	723	Two marten trap housings; Large area of clearings, one tentpole; High-cut treestumps; Drum cache, debris, cut stumps; One large axe-cut tree	Eagle Forks Traps 1 (13B/15 Ethno-07) Eagle Forks Portage 1 (13B/15 Ethno-06) Eagle Forks Cuttings 1 (13B/15 Ethno-04) Eagle Forks Cache 1 (13B/15 Ethno-03) Eagle Forks Cuttings 2 (13B/15 Ethno-05)

9 (Eagle Tributary)	6	123	One axe-cut stump	Eagle Tributary Cuttings 1 (13B/16 Ethno-01)
10 (Mestekaumau-nipi)	4	66	Nil	n/a
11 (Uinikush West Waterway)	22	336	Low-cut stumps	Uinikush West Waterway 1 (13B/13 Ethno-19)
12 (Paradise River Crossing)	7	419	Nil	n/a

Table 5.2 Summary of Field Survey Results

5.2 Field Survey

5.2.1 Component 1 (Churchill River Crossing, North Shore)

5.2.1.1 Introduction

In the proposed crossing area, the north bank of the Churchill River consists of a generally low-lying area below 15m with many relict river channels, extending east from the crossing, across the eastern half of the Project Area and beyond. Forest cover here is often thick, with bog in poorly-drained former river channels, and some fairly extensive cut over areas, especially in the immediate vicinity of the bridgehead. This welter of low channels and terraces is backed by the high, well-defined 30m terrace on which the airport lies. These higher terraces are often partly burned over with lichen woodland vegetation on sandy soils, and atop the highest levels sit the spectacular dune formations which formed shortly after deglaciation and which stretch along the Churchill Valley as far west as Gull Lake. To the west of the proposed crossing, the riverbanks are generally high, steep and eroding, rising to 60 m a.s.l.

This area was previously investigated, during the Overview Assessment of the Churchill River Power Project in 1998 (IEDE/JWEL 2000). This work included investigation of 5 testing locations along the low river bank in the immediate vicinity of the proposed crossing. One hundred and eight testpits were excavated at these locations, and three ethnographic sites were recorded: one dilapidated sawmill amid the cutovers (13F/08 Ethno-06), two open hearths possibly remaining from a boil-up site (13F/08 Ethno-07), and one pair of Innu campsites (13F/08 Ethno-08). To the west, 268 testpits were excavated in 9 areas along the north shore of the river between the western end of the airport and Muskrat Island; one ethnographic site was recorded (13F/07 Ethno-05). Finally, to the north, 68 testpits were excavated in a single testing location, following the edge of the high (45 m) terrace overlooking Spring Gulch. No sites were recorded in this last area.

In addition to the results of previous field assessments, Pre-Fieldwork Overview Research indicated that there are no specific land use indicators within the Project Area, though the Churchill River has been used as a travel route by Innu (and Metis trappers as well). Air photo analysis confirmed that there are preserved terraces in the area, both high and low, and that these have archaeological potential. The terraces here fall into two main groups. First are the high terraces at 30-45m. Along the river, particularly to the west of the proposed crossing, these are actively eroding. To the east, they have been subjected to development impacts associated with Goose Bay Airport. No sites have previously been recorded at these elevations in the Goose Bay area, though the discovery of one Maritime Archaic site above 45m a.s..l east of Mud Lake in 1998 indicates they do theoretically have potential to yield precontact sites. Because of the erosion and development impacts, this potential is probably restricted to preserved fragments set well back from the present river, and likely well back from any highway construction impacts as well. The second group consists of the preserved terraces along former river channels at low elevations (below 15 m asl) close to the present river. The proposed crossing traverses a broad expanse of these terraces. Intermediate-period sites dating *ca*. 3000 years old have previously been recorded at these elevations (and higher) in the Happy Valley area, though it should be noted that sampling in 1998 was not extensive at elevations below 10 m asl.

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5.2.1.2 Summary of Testing Effort and Survey Coverage

In the context of the 2002 Study, the most important area for research was clearly the area of low channels situated at, and to the east of, the proposed crossing. Not only is this the area most likely to be impacted by development, but it is also an area containing terraces at low elevations that have theoretical potential for Intermediate-period and later precontact sites, but which have not previously been sampled to any great degree.

Work in Component 1 was undertaken for one day by one double-sized team (thus representing the equivalent of two team-days work). Field research was targeted at investigating two well-defined dry terrace features within this lowland area.

The first was a very long well-defined terrace overlooking a boggy former river channel at *ca*. 10m a.s.l, which is cut by several streams and thus offers several testable strategic confluence locations. A substantial section of this terrace was investigated (approximately 600m) and 250 testpits were excavated here.

The second feature had appeared in air photos to represent the upstream end of a former island in the Churchill River, again a well-defined curving terrace edge overlooking bog. Testing here involved excavation of 52 testpits in two lines curving around this feature. On the ground, however, it became apparent that the feature was more of a curving ridge, rather than a terrace edge. It is not entirely clear what type of landform it may represent. Its low elevation is inconsistent with any glacial or glaciofluvial origin. In fact, it rather resembles a dune, not unlike those found along the Churchill River between Muskrat Falls and Gull Island, except that it lies at a much lower elevation (and must be more recent), and also, it points in the opposite direction, suggesting that, if a dune, it was formed under different prevailing winds.

5.2.1.3 Description of Sites Discovered

No sites were recorded during investigations in 2002 on the north shore of the Churchill River.

5.2.1.4 Summary

Several ethnographic sites have previously been recorded in the area. No archaeological sites have yet been recorded, either during previous work, or during the 2002 fieldwork in Component 1, but sampling of low elevation terraces in the Goose Bay area is still at an early stage. The archaeological potential of low-elevation terraces on the north side of the Churchill River crossing remains real.

5.2.2 Component 2 (Churchill River Crossing, South Shore)

5.2.2.1 Introduction

The south side of the proposed Churchill River crossing area is dominated by a prominent hill rising over 250m from the riverbank. To the west, narrow lowlands extend from the mouth of Caroline Brook to Muskrat Island, though the riverbank here is nevertheless actively eroding. This area is generally thickly wooded. To the east, extensive, well-defined terrace systems preserve a series of ancient riverbank landforms stretching east as far as the mouth of Traverspine River. Bog is found in poorly-drained former river channels, and spruce-sphagnum forest or lichen woodland on the raised sandy terraces.

Again, this general area was investigated during the course of Overview Assessment for the Churchill River Power Project (IEDE/JWEL 2000). This previous work on the extensive and well preserved terrace systems here was concentrated well to the east of the bridgehead, outside the 2002 Project Area, and closer to the mouth of Peter Jackies Brook. Three hundred and twenty-one testpits were excavated at four different testing locations here tracking the 30m and 45m contours in 1998 with no positive results. To the west, the only work within the Project Area was at the mouth of Caroline Brook, where 50 testpits were excavated in 2 locations, and one contemporary site (13F/07 Ethno-06), a campsite consisting of a tent frame and associated debris, was recorded.

Land use data indicated few specific land use indicators here, though the Churchill River has served as a travel route for Innu and Metis alike, and background research for the CRPP assessment indicated a trappers tilt formerly stood in the Caroline Brook area in the 1920s. Survey in this location in 1998 found no sign of this structure.

Air photo analysis indicate extensive terrace systems, principally at elevations over 15m and concentrated east of the bridgehead where preserved terraces are numerous. The potential of these, based on the

geomorphological research, is to yield sites of the Maritime Archaic period, though these are river terraces with high steep falls, so Intermediate occupation cannot be ruled out, at least for terraces at and below 30m.

West of the bridgehead the feature with greatest potential is the mouth of Caroline Brook, which had already been examined in 1998.

5.2.2.2 Summary of Testing Effort and Survey Coverage

On the basis of the Pre-Fieldwork Overview Research, the Field Research survey strategy was to focus on the same terrace system investigated for the CRPP in 1998, but to test sections located within the 2002 Project Area and nearer to the proposed highway route. Specifically, work was focused on the terraces flanking, and cut by, a steep gully 3km east of the proposed route. Two teams worked in this area for a total of four team-days, excavating 560 testpits in four testing locations. Of these, 215 testpits were excavated on the 30m terrace west of the gully, 46 on the same terrace east of the gully, plus 299 on two distinct higher terraces at 45m, located east of the gully.

5.2.2.3 Description of Sites Discovered

No sites were found during the 2002 Field Research in Component 2.

5.2.2.4 Summary

Extensive and well preserved terrace systems exist along the south side of the Churchill River. Portions of these lying outside the present Project Area were sampled during the CRPP Overview Assessment in 1998. After the 2002 Field Research these extensive terrace systems have still only been sampled, though

they have now been sampled extensively. Thus far, this particular group of terraces has yet to yield archaeological sites, though terraces of this type at these elevations have yielded archaeological sites elsewhere in the Upper Lake Melville region, and the terraces here within the 2002 Project Area continue to have real archaeological potential. One recent site has previously been recorded at the mouth of Caroline Brook.

5.2.3 Component 3 (Corridor between Churchill and Traverspine Rivers)

5.2.3.1 Introduction

South of the Churchill River crossing, the proposed route skirts the eastern flank of the prominent hill near Caroline Brook; this hill, whose summit reaches 255m, lies well above marine limit (locally 135m a.s..l), and in the early stages of marine regression would have represented an island at the western end of Hamilton Inlet. To the east lies a broad extension of the Lake Melville Plain where organic deposits overlie marine clays. This plain which spreads far to the east, encompassing the lower reaches of the Traverspine and Kenamu Rivers and Carter Basin, represents a former embayment of Hamilton Inlet and is characterized by extensive wetlands intersected by an abundance of terraces, both fluvial (at the lower elevations) and marine. South of the crossing the proposed route, remaining below marine limit for about 12 km before climbing above 135m then crossing the Traverspine and entering the western extension of the Mealy Mountains, heading east toward the Kenamu.

Pre-Fieldwork Overview research suggested that the Traverspine was an Innu travel route, but a difficult one; No land use points were indicated within the 2002 Project Area along this section of the road.

However, air photo analysis did indicate the road corridor between the Churchill River and the Traverspine did include significant stretches of the Lake Melville Plain, particularly the margins of this plain, with preserved marine and fluvial terraces overlooking the wetlands at elevations of between 60-135m. Most

of these probably represent former marine shorelines, with the majority of fluvial terraces probably concentrated in Component 2. Air photo analysis did reveal landforms with theoretically-high strategic value and potential for human settlement, including terraces along the former mouth(s) of the Traverspine River, as well as points of land and saddle formations along the margins of the plain and along the flanks of the hill and former island near Caroline Brook. Consequently, archaeological testing in this component focused on investigating former marine landforms at elevations approaching the marine limit.

5.2.3.2 Summary of Testing Effort and Survey Coverage

Testing effort was focused on selected former marine landforms identified in air photos; ease of access by helicopter was one criterion in testing location selection, and consequently all lay at or near bog margins. Two hundred and thirty-eight testpits were excavated in all at three of the four testing locations identified here. Two of these testing locations were located on a saddle at the southeast flanks of the hill overlooking Caroline Brook. Two sequential strandlines were tested, one with 77 testpits, the other with 50. Both were situated approximately 90 m asl. Two other testing locations were situated to the south and east, on the margins of the Lake Melville Plain. One location at less than 60 m asl had appeared in air photos to represent a rolling swale-and-ridge formation but on closer examination proved to be an extremely wet, poorly-defined drainage channel not amenable to subsurface testing. The other was a prominent hooked point of land rising some 30m above and overlooking the wetlands, at approximately 100 m asl. One hundred and eleven testpits were excavated along the curving crest of this ridge.

5.2.3.3 Description of Sites Discovered

No sites were found during the 2002 Field Research in Component 3.

5.2.3.4 Summary

Extensive and well preserved terrace systems exist here at the margins of the Lake Melville Plain and on

the lowlands flanking the Traverspine River. The 2002 Field Research Program represents only a first effort at sampling these. Their archaeological potential rather depends on the potential for higher-elevation terraces in general, and thus, depends on which deglaciation model is correct.

5.2.4 Component 4 (Kenamu River Crossing)

5.2.4.1 Introduction

Pre-Fieldwork Overview Research and informant interviews indicated that the Kenamu River as a whole, as well as the area of the Kenamu River Crossing, were areas of high archaeological potential. The survey strategy was determined largely by information established during the informant interview process, as well as by aerial photo identification of terraces associated with the confluences of waterways with the Kenamu River.

Informant interviews revealed that the river served as an important travel route for Innu and Settlers alike. Beginning in the early 1800s, Settlers from the Mud Lake area maintained a conjoined series of trap lines along the Kenamu River that were passed down through the generations. Walking and/or poling canoes upriver from the mouth in late autumn, the Mud Lake trappers tended their lines over the winter from small tilts, usually returning briefly to Mud Lake over Christmas. Today, a small number of Settlers from Happy Valley-Goose Bay and Mud Lake continue to trap sections of the river by skidoo, completing their trap runs in far less time than their forefathers, and camping in canvas tents. Informant interviews indicate that the tilts used by an earlier generation are largely fallen down and decayed. The trapping areas maintained today, however, still correspond with those of parents and grandparents. Trap lines in use in 2002 are bisected by the Phase III highway at the Kenamu River Crossing, and at Brennan Lake to the west (not part of the 2002 field survey).

The Kenamu River was a well known salmon spawning river. Salmon travelled upriver as far as Pleasure

Steady to spawn in late summer. By the early 1970s, however, the Kenamu salmon declined. As a result, a still visible fish camp built at Pleasure Steady in the early 1970s was in operation for only a few years.

Innu from Sheshatshiu traditionally used the Kenamu River as a travel artery. Innu made a late summer journey upriver in order to harvest salmon and to make general preparations before moving further into the interior for the winter months. The journey from Sheshatshiu was made by canoe to the mouth of the Kenamu River, and then on foot and by portaging and poling upriver. The trip took twenty to thirty days, with camp stops along the way. An Innu camp was established each year at the mouth of the Salmon River, where it flows into the Kenamu, on the northeast terrace. The purpose of this camp was to harvest salmon, which were speared at night when they were still using birch flares to increase visibility. The maximum number of fish caught at one time was twenty to thirty, this being the greatest number that could be split and dried without spoilage. Split salmon was dried for winter consumption and wrapped in bundles, and sometimes pounded into powder. A variety of other processing efforts were carried out at this camp in preparation for the winter months. Winter clothing and tents were prepared, as were moccasins and snowshoes. Scaffold caches were built to store equipment that would not be needed in the winter, such as canoes.

Innu travel routes to the interior winter camps followed two directions from the Salmon River camp: groups travelled along the shore of the Salmon River leaving it to head eastward towards Uinikush Lake and other areas; or, groups travelled southward along the Kenamu to the area known as "Mountain Range" where caribou could be hunted. Informant interviews indicated the location of a portage route at the Kenamu River Crossing, on the eastern shore.

5.2.4.2 Summary of Testing Effort

Archaeological testing efforts in Component 4 took place at sixteen locations (Figure 5.5, Table 5.2). Testing zones were distributed roughly parallel to the riverbank at elevations ranging from 3 - 5 meters

above river level, with the exception of higher (5 - 10 m above river level) terraces at Pleasure Steady and the mouth of the Salmon River. All areas were visually inspected for tilts, trapping equipment, and further cultural material. Three areas were visually inspected only, while all others were also test pitted (total test pits = 633).

5.2.4.3 Description of Sites Discovered

Kenamu 8 (FfCa-01)

Kenamu 8 is a portage route situated at the location of the proposed highway crossing. Its location was identified through informant interviews at Sheshatshiu and its purpose was to circumvent particularly rough rapids at a bend in the river just south/upriver from the large island known as "Lexie Island." This route was used as late as the 1960s, and before that, by Innu travelling upriver along the Kenamu towards the caribou hunting region south of Easter Brook in the Mountain Range area. The former portage route is still visible as it parallels the shoreline, and is situated just inside the tree cover above the bank of the river. Small spruce and alders have begun the process of overgrowth, and sections of the route are already overgrown. Test pitting was completed within the route and to either side of it, as well as on an upper terrace that parallels both the shoreline and the portage route. Wider openings relative to the route's width were more intensively tested on the assumption that these were camping sites, but no cultural material was recovered.

Kenamu 2 (13C/16 Ethno 1)

This site is situated on the western shore of the Kenamu River, on the north side of the mouth of Path End Brook. The terrain is dense, dark forest with a thick, wet sphagnum forest floor. This area shows a LAMAP point, and the pre-fieldwork informant interviews indicated that this was also the area of one of Douglas Best's former tilts - the last tilt on his run from Brennan Lake. Doug Best was a Mud Lake trapper who trapped here during the first half of the twentieth century. His main camp was at the mouth of Path End Brook. Path End Brook was also the last section of a winter portage used by trappers from Mud Lake; it followed Otter Brook to Brennan Lake along the foothills of the western edge of the Mealy Mountains. Doug Best was well known for the long trap line that he maintained between the Kenamu River and the Eagle River – it was thirteen tilts in length, one way. At one point, he also had a tilt run between Path End Brook and Mountain Range to the south, which he sold to James Goudie of Mud Lake. Parts of this line are still trapped by the latter's son, Joseph Goudie, as well as by Doug Best's grandson, Walden Best, both of Happy Valley. The site itself consists of nine axe-cut sticks leaning against a tree, each about

80 cm in length. A rusted wire-cut nail, hammered into the tree trunk next to the sticks, is 70 cm from the ground. The configuration of sticks and nail are on the very edge of the bank of Path End Brook, and may have been part of a mink trap. There were also several very old and decayed axe-cut stumps in the area, cut at a height of 1.5 metres.

Kenamu 3 (13C/16 Ethno 2)

This site also corresponds with the general area of the LAMAP point and Doug Best's base camp (see description above). It consists of several very old and decayed, 2 - 2.5 metre-long axe-cut logs lying on the forest floor that may be the remnants of a tilt. There are axe-cut stumps throughout the area, cut to a height of 1.5 metres.

Kenamu 4 (13C/16 Ethno 3)

This site is also to the north of Path End Brook, where the brook runs into the Kenamu River, and it corresponds with the general location of the LAMAP point and Doug Best's main camp noted in the description of site "13C/16 Ethno 1." A plywood pine marten trap is nailed to a tree at the edge of the bank overlooking the Kenamu River. Plywood traps were in use in this area as early as the late 1960s, but its good condition suggests that it could be part of Walden Best's present-day trap line.

Kenamu 5 (13C/16 Ethno 4)

Kenamu 5 is a former salmon fishing camp built at Pleasure Steady on the Kenamu River. Pleasure Steady was given its name by Doug Best in the early 1900s because it is one of the few smooth-flowing stretches of the river. This is an area of open lichen woodland vegetation, ideal for camping. The camp was built in the early 1970s by Horace Goudie of Happy Valley to take advantage of the late-summer salmon run that reached as far upriver as the Steady. The camp was in use for only two to three years, however, due to a decline in the salmon run. Four log buildings are in various states of collapse. Three appear to have been sleeping cabins, while a fourth served as a small lodge for meals. One of the sleeping cabins is in somewhat better condition than the others, and has been revisited and kept up over the years, although recently bears

have torn off the door, and most items are chewed up. The location was formerly used as a tilt site by H. Goudie's father, James Goudie of Mud Lake, who trapped along this section of the Kenamu in the 1940s. James Goudie, in turn, purchased this trap line from Doug Best of Mud Lake, who had trapped there in the early decades of the twentieth century.

Kenamu 6 (13C/16 Ethno 5)

Kenamu 6 consists of a plywood pine marten trap still nailed to a tree trunk at river's edge. The trap is at a height of roughly 2.5 metres and appears well weathered. Sawn tree trunks dot the surrounding area, which is otherwise extremely dense spruce forest growth.

Kenamu 7 (FfCa-02)

Situated in a small 3 x 5 metre clearing in the woods, Kenamu 7 is represented by a collapsed tilt. The site is located approximately fifty metres south of the confluence of the Salmon River with the Kenamu River. The tilt's timbers are extremely decayed and moss-covered, and the clearing has some spruce overgrowth. The tilt is set back from the river bank about 4 metres; its original size was 2.5 x 2.5 metres. The clearing is strewn with a small amount of debris, including a tin bucket, an old buck saw part, and two tin pans.

The pre-fieldwork informant interviews indicated that Henry Best of Mud Lake had a main tilt near the confluence of the Salmon River and the Kenamu River, on the southeast side. His trap line extended both north and south along the Kenamu; part-way to Peter River to the north (where Herbert Michelin of Mud Lake trapped), and part-way to Pleasure Steady to the south (where Doug Best had a tilt at that time). Henry Best also trapped eastward, onto the Eagle River plateau region, and maintained a trap line in this area throughout the first half of the twentieth century. The decayed state of the timbers suggest an early age for the tilt, and it is possible that it belonged to Henry Best.

Utshashumeku-shipiss 1 (FfCa-03)

A subtle trail leads north from Utshashumeku-shipiss 1 along the banks of the Kenamu River, gradually

climbing to reach an area of lichen woodland which lies atop an unusual eroding rockshelf overlooking (and even slightly overhanging) the Kenamu River. Cultural remains encountered on and flanking this rockshelf were designated Utshashumeku-shipiss 1. Surface-visible remains were limited to two rock hearths and a cut wooden post situated on the rockshelf, and a single cut alder stump at the northern edge of the lichen woodland.Though surface-visible remains are limited, this is the most likely location of the principal traditional Innu campsite at the mouth of Salmon River (see Section 5.1.4.2). One hundred and twenty-nine testpits excavated in this area revealed two precontact loci, both situated in spruce-sphagnum forest on the northern and southern edges of the lichen woodland, respectively. Testing in the northernmost, Locus 1, led to two positive testpits 5m apart; one yielded a single quartzite finishing flake in the A Horizon, the second a lateral fragment from a thick quartzite biface at the top of the B Horizon. Locus 2 was identified 75m to the south. Here again there were two positive testpits, 16m apart One yielded eleven fine quartzite flakes in the A Horizon, the other a collection of 28 grey and reddish-grey quartzite flakes, ranging from cortical fragments and shatter to thin finishing flakes, as well as two flakes of quartz. Testing results indicate a site composed of multiple small campsites dating to the Intermediate period (3500-2000 BP).

Utshashumeku-shipiss 2 (13C/16 Ethno-06)

Utshashumeku-shipiss 2 is located in low-lying spruce-sphagnum forest on the north side of the confluence of Salmon River and Kenamu River. Surface-visible remains consist of two campsite clearings opening out onto the Kenamu, some cut tree stumps, and one trap. The clearings open up a little to the water on Kenamu River. Scattered clearings are also found along the Kenamu River bank to the north, though these are not so obviously cultural in origin. Testpitting revealed undifferentiated brown sand indicating soils of no great age, not surprising this close to river level.

5.2.4.4 Summary

The archaeological survey of Component 4 ranged primarily north of the proposed highway crossing. The survey location was partly determined by river logistics and partly determined by a number of pre-identified terraces and known land use areas that lay between the highway crossing and the Salmon River.

The vegetation of the sixteen Component 4 testing locations is chiefly characterized by very dense spruce forest growth interspersed by occasional stretches of open lichen woodland. Evidence of trapping, including the collapsed tilt, pine marten traps, and cut wood locations, occurred within the dense forest cover at the lowest elevations above river level and at the edge of the river bank. Similarly, the portage route was cut through dense forest cover and followed the top of the present-day river bank. Areas of open lichen woodland, which were also the higher elevation testing zones, did not yield any evidence of cultural material, with the exception of the terraces on the northeast side of the Salmon River that yielded evidence of precontact quartzite flakes (Utshashumeku-shipiss 1).

The results of the Component 4 archaeological survey dovetail well with the evidence provided by the informant interviews. Information obtained from the interviews gives historical and cultural context to the correspondent sites and significantly increases our understanding of land use along the Kenamu River. Despite its relative difficulty of access, primarily due to continuous rapids from its mouth, the Kenamu River supported Settler trapping activity during the autumn and winter. For the Innu families from Sheshatshiu who overwintered in the eastern-central region, the Kenamu served as an artery to the interior winter camps. The late summer salmon spawn at Salmon River was the site of annual camps where salmon was harvested and smoked and materials were prepared for overwintering in the interior.

5.2.5 Component 5 (Uinikush Lake)

5.2.5.1 Introduction

East of the Kenamu Crossing, the proposed route climbs through the belt of rolling hills which defines the eastern side of the Kenamu Valley and forms the western edge of the Eagle Plateau. For a short distance the route follows the northern edge of Uinikush Lake. Uinikush is a narrow (7 km long by 0.25-1.0 km wide) lake oriented north-south and lying at the headwaters of the Eagle River system. Surrounded as it is by the rolling hills of the western plateau, Uinikush is not surrounded by wetlands, like many other plateau lakes, but rather, by relatively steep wooded slopes. Small brooks flow into the lake from the west,

northwest and northeast, while the outflow from the southern end of the lake runs some 8km to the southeast, flowing into Mishtashini and the group of large lakes at the southwestern corner of the Eagle Plateau.

Pre-Fieldwork Overview Research indicated significant archaeological potential for Uinikush. Previous archaeological work in the region (Schwarz 1998) had identified Innu campsites on Mishtashini and Kamishekemat, and, a little further east, a multi-component precontact and historic site near Pepaukamau. Land-use data indicated Uinikush lay at the junction of traditional travel routes. The most important appears to have been the major travel route leading from the Kenamu River to the southern Plateau Lake group, which enters Uinikush from the west and continues southeast along the outflow to Mishtashini. However, numerous other travel routes are indicated leading east, southwest, and northwest, including one fairly significant travel route leading from the northwest corner of the lake, north toward the Kenemich. In addition, Uinikush is identified as an important harvesting area for beaver and other furbearers (Tanner 1977). As informant interviews indicated, a fish camp has been established on Uinikush by a businessman from Goose Bay.

Equally important is the number of specific land use locations indicated for Uinikush. Land use data identify ten Innu campsite locations along the shore (two of which may be redundant). Informant interview data confirmed this, attesting to "many" campsite locations along the northern portion of the lakes, including five specific campsite locations. Informants further identified a noted trouting area at the southern end of the lake, as well as a portage route bypassing the rapids south of Uinikush on the travel route leading east to Mishtashini.

5.2.5.2 Summary of Testing Effort and Survey Coverage

One team spent four and a half days surveying Uinikush Lake by canoe and on foot. In all, 27 testing locations were investigated, and 465 testpits were excavated in 21 of these. The average of 22 testpits excavated per subsurface-testing location reflects the fact that habitable locations are generally small and

constrained by steep slopes, small areas of bog, stream swamp, or a combination of all three. Survey coverage is considered intensive overall, with all major points of land, sandy coves, and stream inflows/outflows being investigated. Survey activities included ground-truthing all of the campsite locations identified in informant interviews and all but one of the locations identified in land use data.

Aside from those testing locations which yielded cultural materials, described below, there were only two notable *negative* testing locations. The first was the mouth of the river flowing into the northeastern corner of the lake. The location was identified in land use data, and is the sort of landform normally expected to yield cultural remains, but results were negative. The second case was the fish camp, which informant interviews indicated as a former Innu campsite as well. No evidence of former use was identified either through surface inspection or through subsurface testing, though it should be noted that the present camp and associated structures are substantial, and occupy most of the habitable area here. Any evidence of former occupation is likely to have been destroyed, or to lie beneath existing structures.

5.2.5.3 Description of Sites Discovered

A total of 13 archaeological and ethnographic sites were recorded on Uinikush, representing more than a third of all sites recorded during the 2002 Historic Resources Research Study.

Uinikush 1 (13B/13 Ethno-23)

Uinikush 1 is located at the base of a point that juts out from the eastern shore of Uinikush. The site features three tent frames in various stages of disrepair, and two collapsed caches (one for firewood, the other with stove parts and two purple plastic toboggans). Alongside the camp to the west, a wide cut trail runs south to north cutting across the point of land. At least two of the campsites, and likely all three, postdate the 1980s, judging by the amount of plastic debris. Uinikush 1 appears to represent one of the larger Innu campsites on Uinikush, and also the most recent campsite location to have seen regular use. The location corresponds quite closely to an Innu land use point identified in Pre-Fieldwork Overview

Research. Twenty-three testpits were excavated in the campsite clearings and along the immediate lakeshore to the south. Deposits appeared uneven and wet at the northen end of the little trail leading alongside the camps and no testing was attempted here. All testpits were negative.

Uinikush 2 (13B/13 Ethno-24)

Uinikush 2 is located at the bottom of a deep cove on the western side of the lake, just south of the brook that flows into Uinikush from the waterway to the west. This location may represent the terminus of a short (500m) overland route to that waterway. Surface-visible remains set back from the shoreline include three tent sites with stove support pegs, and cut stumps 1.5-2m high suggesting winter occupation. No tent poles were noted, and no plastic debris, suggesting a campsite dating to the 1970s or earlier. This location was identified as a campsite both in Innu land use data and in informant interviews. Twenty-three testpits excavated in and in front of the campsite clearings were negative.

Uinikush 3 (13B/13 Ethno-25)

Uinikush 3 lies about 200m east of Uinikush 2 on the point of land which forms the north side of the cove. On the shoreline, an opening in the trees marks the beginning of a path leading in from the shore. Near the water, two sections of a plank-built canvas canoe lay partly overgrown with moss. The trail leads in to a series of five clearings with tentsites, somewhat dispersed across the point of land. Visible debris includes stoves, tubs, one piece of enamelware and a few scattered pieces of sheet plastic. The plastic notwithstanding, the canoe, generally sparse remains, and scarcity of plastic debris suggest Innu occupation for the most part occurred before 1980, and probably before 1970. Thirty-five testpits were excavated within the clearings and along the path leading down to the water, with negative results. This location was not previously identified in Pre-Fieldwork Overview Research.

Uinikush 4 (13B/13 Ethno-13)

Uinikush 4 lies at the mouth of a brook flowing into Uinikush from the west. Land use data and informant interviews suggest it lies at the terminus of the Innu travel route which leads to Uinikush from the Kenamu

River; informant interview results further indicated a campsite location on the north side of the brook. Field survey revealed nothing on the north side, which is rather wet. On the south side however, a path leads in from a sloping bedrock shelf perfect for hauling out canoes. The trail continues to the east along the shore, though there is no sign it continues westward at all. The trail is defined by many cut stumps, mostly quite low; in addition there are two slight clearings in the trees, though these contain no surface-visible remains of tent sites.

Uinikush 5 (13B/13 Ethno-14)

North of Uinikush 4 lie a pair of long, sandy coves separated by a small wooded point of land. An old cut trail marked by low-cut tree stumps cuts across this little point. There was room on this point for a single testpit, which was negative. The function of this trail is not entirely clear.

Uinikush 6 (13B/13 Ethno-15)

Uinikush 6 is located at a small brook mouth in the bottom of a cove near the northwestern corner of Uinikush Lake, opposite a small island. Cut stumps mark out two campsite clearings, one with remains of two stove support pegs, the other with a scatter of tin cans and cut firewood. The team excavated 12 testpits in the clearings, and also 7 testpits just behind the campsite, on a small raised level lichen woodland terrace backed by a stagnant pool just above the brook inflow. Testpits were negative. This location was identified as a campsite in both Innu Nation land use data, and in informant interviews for this project.

Uinikush 7 (13B/13 Ethno-16)

At the northwest corner of the lake lies the mouth of a relatively wide brook, flowing in from the north. This marks the beginning of the travel route leading north towards the Kenemich. Land use data indicated a campsite on the eastern side of the rivermouth, while informant interview data indicated a campsite near the western side. Surface inspection and testing yielded negative results on the western side, but the eastern side had clearly been used as a campsite. The remains were ephemeral but cut stumps did delineate three old campsite clearings. No other surface-visible remains were noted, and 41 testpits excavated here

revealed encouraging soil development profiles but no cultural remains.

Uinikush 8 (13B/13 Ethno-17)

Uinikush 8 is situated along a long sandy beach on the eastern shore, less than a kilometer from the present fish camp. Two small old clearings observed here feature low-cut tree stumps and open directly onto the beach, so both the cutting height and the exposure suggest warm-season occupation. Aside from the clearings themselves, no other cultural remains were observed and sixteen testpits excavated in and around the clearings were negative.

Uinikush 9 (13B/13 Ethno-18)

Uinikush 9 lies on another sandy beach on the eastern shore, almost directly opposite Uinikush 4. The location is identified in Innu Nation land use data. The site includes three campsite clearings, one immediately behind the beach, the others further back. The closest to the water contained no surface-visible cultural features, and testing indicated wet deposits. The next contained no structural remains as such, but many cut stumps, and a range of debris, mostly tin cans, including baking powder and milk, and a large number of soft drink cans, Fanta Ginger Ale and Cott Orange, all of which had been opened with a can opener or knife since they had no pull-tabs. Testing here also yielded half a chrome-plated lure and a 1943 penny, neither of which were collected. The third clearing contained tent poles, with forked front and back central supports still standing. The flat-topped non-pulltab soda cans suggest occupation sometime between the mid 1950s and the mid or late 1960s, and most of the other remains are consistent with this though the standing tent frame is likely more recent. In all, 16 testpits were excavated in these clearings. In addition, ten testpits were excavated on a nice little level, dry point at the southern end of the beach, at the north side of a small brook mouth. It should be noted that off the northern end of this beach stands a damaged cribwork; whether it was emplaced here, or pushed here by ice is not clear.

Uinikush 10 (FfBw-01)

The remainder of the point of land west of Uinikush 1 is dominated by an irregular rocky knoll neither

suitable for habitation nor amenable to testing. However, a narrow habitable area was identified out at the very tip of the point, at the foot of this knoll and about 50-60m west of Uinikush 1. Testing in this area revealed well-developed soil development horizons indicating stable soils, and soon, in the fourth testpit excavated at the foot of the knoll, cultural remains were encountered in the form of one large piece of quartzite shatter and one quartzite flake. Subsequent testing to delineate this deposit identified two more positive testpits, all of them situated close to the backslope. Testpit 5, about 8m away, yielded a single quartzite flake, then Testpit 6, 3m from Testpit 5, yielded a large collection of 24 pieces of quartzite and one of quartz. Most of the larger pieces of quartzite are blocky pieces of shatter and retain some cortex, though some of the fourteen smaller flakes do not. Positive testpits shared similar profiles, with thick duff layers (21-30cm) underlain by a dark silty layer(6-13cm), then the A Horizon (2-4cm) and finally the B Horizon. Cultural material was recovered from the top of the A Horizon (Testpit 4) or from within the dark silty deposit above (Testpits 5 and 6). Thirty-three testpits in all were excavated around the original positive testpit and continuing north and east until testpits proved consistently negative. Additional work here was halted more by time constraints than by a lack of further habitable areas, so there is potential for additional loci further to the northeast. The lithic material appears to represent primary reduction for the most part, but not entirely, and it is reasonable to infer a habitation site in this location. . In terms of dating, the quartzite-dominated assemblage suggests occupation during either the Brinex Complex or the North West River Phase of the Intermediate Period. Intermediate period culture history is problematic in some respects, but a rough date between 3500-2000 BP is likely correct.

Pakatan Uinikush 1 (13B/13 Ethno-20)

Pakatan Uinikush lies at the southern end of Uinikush Lake, not at the southern outflow, but about 200m east of it. This location is identified in Innu Land use data, and is consistent with informant interview data indicating a portage route leading around the outflow begins here. Informant interviews also identified a noted trouting spot in this area, presumably referring to the outflow itself. The (ephemeral) remains designated Pakatan Uinikush (Uinikush Portage) 1 consist of sparse low-cut tree stumps that mark the beginning of a portage trail leading south. This is almost certainly the trail informant interviews identify as leading past two series of rapids to the waterway that flows into Mishtashini, some 8 km downstream. The northern terminus of the trail is quite boggy and contained no surface-visible evidence of camps.

Pakatan Uinikush 2 (13B/13 Ethno-21)

Between Pakatan Uinikush 1 and the outflow lie a number of boggy open areas which are not obviously artificial but may yet represent campsite locations. Two clearings close to the outflow, however, do appear to be cultural. These also lie at the northern terminus of another portage trail. This trail is marked by numerous low-cut stumps, most or all of which appear to have been recently cut, and leads south following relatively close to the river, first rising to the shoulder of a small hill, then descending to the next lake downstream from Uinikush. Fourteen testpits excavated in the clearings and continuing through open areas to the east were all negative.

Pakatan Uinikush 3 (13B/13 Ethno-22)

The survey team followed this second trail from Pakatan Uinikush 2 south along the brook. The southern terminus is designated Uinikush Portage 3. Here the portage trail terminates at the shore of the small lake to the south of Uinikush. At this point a plastic Coleman RAMX canoe lies cached, propped up against the trees. The canoe shows little sign of age or wear, other than a scatter of shredded foam surrounding it, presumably the result of bear activity. Nine testpits excavated on the trail and in spruce-sphagnum forest to the east and west revealed no cultural remains. Likely the canoe is the property of the fish camp owner, and this newer shorter portage trail was broken by him, or represents a renewal of an older previously-existing trail.

5.2.5.4 Summary

In summary, Uinikush Lake yielded considerable cultural remains including one precontact site dating to the Intermediate period. Its archaeological potential is evidently as high as the Pre-Fieldwork Overview Research suggested. Survey coverage is considered extensive; most of the locations with potential to yield remains have been investigated, and given that individual testable areas are generally small, these have been tested intensively. It is likely that the survey has identified the majority of the sites to be found here. Most

of these sites are entirely consistent with the informant interview data indicating Uinikush was a popular harvesting area through the 1960s.

5.2.6 Component 6 (Keupash-nipi)

5.2.6.1 Introduction

Keupash-nipi is a small lake on the Eagle River plateau at an elevation of 405 m asl, nine kilometres east of Uinikush Lake (Component 5). Phase III of the proposed highway will pass 500 metres to the north of Keupash-nipi. The terrain is flat and consists of wet sphagnum and much wetter bog, with a thin perimeter of spruce trees around the lake. Lake levels are extremely shallow and the lake is dotted with numerous large glacial erratics.

Keupash-nipi was chosen for archaeological reconnaissance on the basis of information provided by the pre-fieldwork informant interviews. Innu families from Sheshatshiu temporarily camped on the shores of this lake during the late autumn and winter; one family maintained a trap line between Uinikush Lake and Keupash-nipi. The interview data indicates that these camps were last visited in the early 1960s but that the area had been regularly hunted, trapped, and fished prior to that time. Keupash-nipi is only four km from Kamishekemat Lake, where the same families also maintained winter camps, and where several Innu families from Sheshatshiu still trap in winter today.

5.2.6.2 Summary of Testing Effort and Survey Coverage

Wet and/or boggy ground around Keupash-nipi precluded an intensive test pitting program, so archaeological effort concentrated on visual inspection for cut wood and other cultural remains. Nine sectors were surveyed at Keupash-nipi, representing much of the lake's shoreline, and in four of these areas it was possible to place 35 test pits in dryer ground, all associated with sites (Table 5.2). Shorelines

were shallow, rarely higher than 1.5 metres above lake level.

5.2.6.3 Description of Sites Discovered

Keupash-nipi 1 (FfBv-01)

Situated on the southwest side of Keupash-nipi, this site corresponds well with informant interview data from Sheshatshiu that indicated a winter camp at this location, last used in 1962/63 by the informant, his wife, and children. The former camp area is in a small clearing within the spruce perimeter of the lake, 1.5 m above water level, and 3 m from water's edge. At the shoreline, two large axe-cut stumps approximately 2.5 metres in height appear to have served as markers for the camp when approached by water - no other trees along the shore have been cut. Camp remains consisted of three tent support poles, two of which were partially covered by sphagnum moss and a third above-ground. Three stove support posts partially overgrown by sphagnum were visible and had been shaped with both an axe and a saw. The stove supports were located at the south end of the former tent site and indicate that the tent faced northward. Axe-cut stumps ranging in height from 1 - 3 metres are visible throughout the area behind the camp, and suggest cutting while snow was on the ground. The tent space measured roughly 3 x 3 m and was situated on an unusually dry patch of ground relative to the surrounding bog. Two test pits were placed in the area within the tent poles and around the stove supports, and two immediately outside the supposed entrance area. One of the latter test pits yielded small bits of green plastic, resembling material from a garbage bag. A test pit near the stove supports yielded a small ball of paraffin wax. Three additional test pits were placed in the area of the tent, but yielded no cultural material.

The southwest shore of Keupash-nipi shows plentiful evidence of beaver activity. Many stumps bear signs of both old and recent beaver activity, and a large beaver lodge is situated about 500 m west of the camp site, near the mouth of the small brook that flows into the lake on its western edge.

Keupash-nipi 2 (FfBv-02)

Keupash-nipi 2 is situated in an open grassy, boggy plain at the western end of the narrows that leads to the northern part of this lake. The site consists of several axe-cut stumps ranging 1 - 1.5 m in height. In contrast to the axe-cut wood at FfBv-01, these stumps appear much more weathered and decayed and may be somewhat older. No evidence of a camp could be located, although beaver activity hereabouts is plentiful.

Keupash-nipi 3 (13B/13 Ethno 10)

Keupash-nipi 3 is situated on the north side of the narrows leading into the northern part of this lake. Axe-cut stumps occur both throughout a large boggy stretch and within the wooded perimeter, an area over 50 m square. The stumps were cut at 1.5 - 3 m above ground level. Their height and their presence throughout a relatively boggy area suggests winter camping in this area. Part of a decayed, plastic running shoe sole was also noted, partially overgrown by sphagnum, but no clear signs of camps were found.

Keupash-nipi 4 (FfBv-03)

Keupash-nipi 4 is situated on the west side of a small cove on the lake's northernmost shore, where a stream flows into the lake. The entry area to the site is marked by two 2.5 m high axe-notched stumps - no other trees have been cut along the shore edge. Based on stump decay, this appears to be a relatively old Innu campsite. The camp itself is 5 m from the bank, roughly 1.5 m above lake level. The clearing is 2 x 3 m in size and is largely overgrown by 1 m high spruce trees. Rusty tin stove parts lay 5 m to the south from the clearing. The actual tent site was distinguished by three decayed, nearly moss-covered stove supports, also some rusted iron fragments and what appeared to be a small pile of cut wood, all nearly overgrown with sphagnum moss. There were also signs of two former trails heading north and southeastward from this campsite, but almost obscured now by tree growth. There are many axe-hewn stumps throughout the area. The camp is only a few metres away from the small brook, where there is both old and recent evidence of beaver activity. Two test pits were placed within the tent area; one yielded a small patch of black leather, finished on one side and showing a line of double machine stitching, which was reburied. Two further test pits placed around the edges of the former tent clearing yielded no other cultural material.

Keupash-nipi 5 (FfBv-04)

About 30 m southwest of FfBv-03 are two further camp clearings. The first is somewhat overgrown with 1 m high spruce trees, and was roughly 10 x 5 m in size. Four stove supports are visible but almost fully embedded in sphagnum ground cover. Remains of an aluminum kettle lie next to the stove supports and there are cut trees throughout the area with an average height of 1.5 m. Four test pits yielded no cultural material. A further 12 m to the west is a second, smaller camp clearing, 3 x 8 m in size. Three long tent support poles are still visible just under the surface sphagnum. A plastic bandage fragment was found in one of four test pits. Two tent supports found 6 cm below surface mark the original tent location.

Keupash-nipi 6 (13B/13 Ethno 11)

Keupash-nipi 6 is located on the northeast side of the southern basin of this lake. From the water, the site's location was marked by three axe-notched trunks at the edge of the bank; as with the other sites on this lake, these trunks appear to be camp markers with no other trees cut at water's edge. The campsite is situated within a dense forest cover immediately over the bank, 2 m above lake level. The forest floor at this location was some of the wettest ground at Keupash-nipi, with the exception of the open bogs. Two large camp clearings at this site may have held more than a single tent each. One clearing retained two tent posts and one stove support. The second clearing had a single rubber boot and a nearly buried section of canvas. Further cultural material at this site included a small plastic jar of "Vicks Vaporub" tied to a branch; the brand name was embossed on the base of the jar along with the triangular recycling symbol and the number "2." A second rubber boot from a different pair than the first was noted, as well as an aluminum coffee percolator missing its lid. Each clearing area is approx. 7 x 5 m. Axe-cut stumps are numerous, most of them cut 1 - 2.5 m from the ground. Also noted was an upright pole, approximately 4.5 m long and leaning against a tree, with a yellow polypropylene rope noose tied to the top. Rose Marie Pokue, one of the crew members, recognized this as a technique for hoisting a CB radio antenna in order to receive a better signal. Total area of the two clearings is about 60 x 20 m. The very wet ground conditions suggest that this was a winter campsite. Old and recent beaver activity is evident throughout the area.

This camp location corresponds closely with information obtained from informant interviews in Sheshatshiu. In September of 1963, a group of Innu families flew to Mishtashini Lake then trekked overland in November to camp in the vicinity of Keupash-nipi 6 for winter trapping. The informant indicated that many Innu trap lines fanned out from Keupash-nipi, belonging to several families, and that the lake had been a trapping area for as long as he could remember.

Keupash-nipi 7 (13B/13 Ethno 12)

Keupash-nipi 7 is situated at the southeast corner of the lake and consists of axe-cut stumps throughout a very marshy meadow. The stumps occur over an area approximately 20 m in length along the shores of the lake and their general appearance suggests that they date to roughly the time of Keupash-nipi 6.

5.2.6.4 Summary

The archaeological material in combination with the interview data indicate that Keupash-nipi was a winter trapping area. Interview data indicated that many trap lines extended from this lake, as did travel routes to the north into the Mealy Mountains area, to the west towards Uinikush and the Kenamu, and south to the large lakes that represent contemporary winter hunting and trapping areas. Use of the Keupash-nipi region seems to have ended in the early 1960s, but signs of winter land use include camps situated on ground that was relatively wet in late summer, as well as the height of many of the axe-cut stumps. Keupash-nipi was at the northern perimeter of a broader area traditionally inhabited by Innu during the winter months that encompassed several large lakes to the south and in earlier periods ranged eastward to the Eagle River. Keupash-nipi currently represents one of the easternmost areas utilized by Innu still living in Sheshatshiu. Even the oldest informants have only distant memories from their childhoods (50 - 60 years ago) of travelling further eastward to the Eagle River region and beyond, although their parents' generation were familiar with these regions. Plateau lakes such as Keupash-nipi add a further dimension to predictive surveying in Labrador, attesting to land use in terrain that might otherwise be classified as low probability due to extremely boggy conditions.

5.2.7 Component 7 ("Little Parke Lake")

5.2.7.1 Introduction

Parke Lake is the name given to a small lake on the 1:250,000 topographic map 13B, 25 km west of the Eagle River forks (Figure 5.1). In order to differentiate this lake from the larger, better-known Parke Lake on map 13G, just to the northeast, it is referred to here as Little Parke Lake. The proposed Phase III highway will skirt the southern edge of Little Parke Lake. The lake consists of two basins joined by a kilometre-long narrows that has rapids marking lake level descent from 406m asl in the southern basin, to 405 m asl in the northern basin. Little Parke Lake is typical of small lakes on the Eagle River plateau in that it is quite shallow throughout, with large glacial erratics in abundance both above water level and just under the surface. A large proportion of the shoreline is either open sphagnum bog or grassy marsh, and much of the wooded shoreline also consists of an extremely wet sphagnum forest floor. With the exception of a few locations of rising elevation, much of the shoreline is low-lying and no higher than 1m above lake level.

Pre-fieldwork informant interview research was unable to establish any knowledge of land use at Little Parke Lake among Settlers of Cartwright and Happy Valley-Goose Bay, nor among Innu in Sheshatshiu. The lake was chosen as one of the coverage areas on the basis of LAMAP information, which indicated travel routes crossing through the area and four LAMAP points on the lake - two on the southern basin, one at the narrows, and one point in the northern basin.

5.2.7.2 Summary of Testing Effort and Survey Coverage

As with Component 6, the very wet ground conditions were not amenable to a test pitting program, but an intensive visual inspection was done of both open bog areas and stretches of wooded shoreline. All of the shoreline was visually checked from the water's edge for axe-cut stumps. Of total shoreline, fifteen

testing zones were checked on foot, representing a large proportion of the shoreline. It was feasible to testpit at three of these locations for a total of 44 test pits (Table 5.2). All areas associated with LAMAP points were checked carefully and it was possible to test pit at two of these (in the narrows, and in the southwest corner). A fifth LAMAP point is situated at the western extremity of a waterway flowing into Little Parke Lake from the west, and at a map distance of four kilometres from Little Parke Lake. The field crew was unable to reach this LAMAP point due to extremely shallow water in the western reaches of the lake. Given the virtual absence of cultural material at the other LAMAP points, it was determined that an overland hike was not warranted.

5.2.7.3 Description of Sites Discovered

Little Parke Lake 1 (FfBs-01)

A single very decayed axe-cut stump was recorded at the southeastern end of Little Parke Lake. An intensive visual check throughout this area of sparse woods and open bog revealed no further signs of human presence. This location corresponds with a known LAMAP point, but no additional interpretive material is available.

5.2.7.4 Summary

Intensive visual checks of all fifteen testing zones for axe-cut wood, camp clearings, and cultural debris resulted in a single site. The lack of cultural evidence may be the result of inaccurate land use data, but is more likely a reflection of site decay. If land use in the area has declined in the second half of the twentieth century, then conceivably, evidence of overland travel, trapping, and winter camping may have decayed entirely in the intervening decades.

5.2.8 Component 8 (Eagle Forks Crossing)

5.2.8.1 Introduction

East of the "Little Parke Lake" group, the proposed route skirts a group of rolling hills and breaks out again into open plateau, passing through a mosaic of wetland and low wooded rises as it approaches the Eagle River. The route crosses the Eagle River at the Eagle Forks, a major confluence where the two principal branches of the upper Eagle converge. One of these flows down from Iatuekupau (Parke Lake) at the foot of the Mealy Mountains, the other flows north from Nekuanikau ("1155 Lake") . The Forks, where these rivers meet before continuing east, shows in Innu Nation land use data as a major nexus of travel routes leading in from Nekuanikau to the south, Iatuekupau to the north, and the lower Eagle River to the east. This is hardly surprising; even in the absence of any land use data, the area shows obvious potential to have been a strategic location for human settlement in the past. The results of Pre-Fieldwork Overview Research were, however, surprisingly ambiguous about its potential to yield archaeological and ethnographic sites. The same land use data that indicated its importance as a travel route junction showed few specific campsites. Informant interviews conducted in Sheshatshiu added no more, and furthermore, indicated that though Innu parties frequently travelled through the Forks area, they tended to avoid camping there because of the high, steep riverbanks. Informant interview data collected in Cartwright similarly indicated Metis land use (principally trapping) in the area but no specific locational data, other than a drum cache identified just downstream from the Forks.

5.2.8.2 Summary of Testing Effort and Survey Coverage

One team spent six days surveying the Eagle River Forks area by canoe and on foot. The team initially landed on the north branch of the river, about 4km above the Forks, and completed work at the broad riverbend about 4km downstream from the Forks. Testing activity was focused on the points of land forming the Forks themselves, and on the riverbanks alongside major rapids. In all, thirteen testing locations were investigated, and 723 testpits were excavated in 12 of these. The average of 60 testpits excavated

per subsurface-testing location reflects the fact that fairly extensive potentially habitable areas were identified at many of these testing locations. Survey coverage is considered intensive within the targeted landform types (confluence and rapids). Unfortunately, for a variety of logistical reasons, survey activities did not include ground-truthing any of the three campsite locations identified in Innu land use data.

Aside from those testing locations which yielded cultural materials, described below, there were a surprising number of negative or near-negative testing locations. The most notable is the Forks area itself, which yielded limited evidence for recent land use and no evidence for occupation in the historic or precontact periods. This in spite of the fact that subsurface testing programs in the confluence area were intensive. While these results were perhaps consistent with the informant interview results, they are nevertheless surprising, particularly since there are no obvious factors precluding settlement at the Forks. Interview results notwithstanding, much of the riverbank here is potentially suitable for habitation, fishing is good, the banks are neither too high nor too low, and though the currents are swift in this area, the areas investigated all offered at least some sheltered quiet water suitable for landing and launching canoes. As for the rapids, riverbanks were investigated at five sets of rapids; two were situated on the north branch of the Eagle River above the Forks, and three downstream from the Forks. Although cultural materials were observed at three of these, these materials were sparser than expected. The most impressive rapids, a pair of rapids on a bend of the river downstream of the Forks, yielded no evidence that they had ever been portaged, this despite the fact that they cannot be shot safely, and they can be easily circumvented by a single 300m portage. There was also no evidence for settlement, and though the riverbank is high and steep here, it is otherwise quite suitable for habitation.

5.2.8.3 Description of Sites Discovered

Eagle Forks Traps 1 (13B/15 Ethno-07)

Eagle Forks Traps 1 is situated at the second rapids above the Forks, about 2km upstream from the confluence area. Helicopter overflight revealed areas of open lichen woodland at the point on the north side of the rapids, and it was anticipated that cultural features associated with a portage might be encountered

here. Initially, 21 testpits excavated at the edge of the forest on this point were negative. Testing of the open areas of lichen woodland further inland entailed excavating 48 testpits but these too proved negative, though the area appeared suitable for settlement. No evidence for portaging or settlement was encountered on the surface or in subsurface testing. However, in the sheltered cove just below the rapids, a large tree on the shoreline held two marten trap housings. One on the inland side consisted of a small niche cut directly into the tree, most likely with a chainsaw; the two wedge-shaped pieces of wood extracted from this niche had been nailed above the opening to form a small roof. On the river side, was second trap house, this consisting of a nailed-on plywood box.

Eagle Forks Portage 1 (13B/15 Ethno-06)

Eagle Forks Portage 1 is located on the next rapids downstream from Eagle Forks Traps 1, less than a kilometer above the Forks. Here, a narrow point of land projects into the river from the north side forming two sets of rapids. Just above the upper rapids lies the upstream end of a portage trail which tracks follows the boundary between the forest to the north and the thick alder growth which extends out along the point. A single tent pole was found cached at this end of the trail. The portage trail leads about halfway across the point from the western end, then opens into a series of clearings which continue to the eastern terminus of the portage. The clearings consist of irregular open areas of thin lichen growth and young willows surrounded by spruce-sphagnum forest. The vegetation cover clearly appears to result from artificial clearing. Thirty testpits excavated across the clearings were negative, revealing brown sandy loam, either undifferentiated, or with occasional mottles of gray and magenta. This appears to be an extensively-disturbed but once-stable soil. There are undeniable cultural features here (the portage trail and tentpole), but the clearings, though almost certainly an artificial creation, yielded no subsurface or surface-visible remains of campsites.

Eagle Forks Cuttings 1 (13B/15 Ethno-04)

Survey of the points of land which define the confluence area at the Eagle River Forks was generally disappointing, despite the completion of extensive and intensive subsurface testing programs. This was mostly true of the northern point as well, where 97 testpits excavated in three lines along the shore were

negative. The only indications of land use were a number of cut tree stumps observed near the edge of the riverbank. This site was recorded as Eagle Forks Cuttings 1, but a few cut stumps represent far less cultural remains than were anticipated in this location. The riverbank here is not too high but it is dry, and it is fronted by a broad sandy beach and a stretch of quiet water just below the confluence of the northern and southern branches of the Eagle River.

Eagle Forks Cache 1 (13B/15 Ethno-03)

Eagle Forks Cache 1 is situated about half a kilometer downstream of the Forks, near the entrance to a small backwater. Pre-Fieldwork Overview Research had identified a Metis drum-cache location (see Section 5.1.2.4) at the head of this backwater and indeed, about 200m northeast of the specified location, the field team observed a cut stump, and a stove half-buried in the moss. Behind the cut stump and the stove, the forest opens up into lichen woodland, and an old path leads inside. A short distance inland, the team noted a scatter of debris, including two stoves, stovepipes, a trap, a flat-bottomed kettle, a small empty drum, and a large 45 gallon drum cut to create a removable end. Inside the drum, more gear was visible through a corroded hole, including a pair of rubber boots and another sealed drum. Seventy-two testpits excavated in the area revealed no subsurface cultural material, and though there is a relatively dense scatter of debris around the cache, there is no clear evidence for campsites.

Eagle Forks Cuttings 2 (13B/15 Ethno-05)

Eagle Forks Cuttings 2 is situated near another backwater below a rapids about 2km downstream from the Forks. Cultural remains are limited to a single axe-cut tree standing near the edge of the riverbank.

5.2.8.4 Summary

In summary, archaeological survey in the Eagle River Forks area involved targeted sampling of rapids and the actual confluence area. Within these locations, survey coverage is both extensive and intensive and must be considered adequate. This survey yielded a number of sites reflecting recent Metis (and possibly Innu)

land use in the area. Aside from Eagle Forks Cache 1, cultural remains are ephemeral in each case and in general the results were disappointing. It is possible that settlement in the Eagle Forks area occurred at locations other than the confluence itself and the major rapids above and below it, though archaeological work elsewhere in the Labrador interior strongly suggests such locations have the highest potential to yield sites. Alternatively, it must be concluded that past settlement in the Eagle Forks area was limited; this is certainly what the informant interview results suggested, though the reasons remain unclear.

5.2.9 Component 9 (Eagle Tributary)

5.2.9.1 Introduction

East of the Forks, the proposed highway route once again breaks out onto open plateau, passing through a mosaic of wetland and low wooded rises as it curves gradually to the northeast toward the Paradise River Crossing. Some 20km east of the Forks, the route crosses, then follows, another tributary of the Eagle River. In the vicinity of the crossing, this tributary takes the form of a rather irregular drainage network composed of numerous small ponds connected by short, shallow, fast flowing streams with frequent rapids. Forest cover is generally thick in narrow bands fringing the waterways, with large areas of open bog lying behind the screen of trees. This location was selected for investigation primarily because it is a relatively important tributary to a major river, and thus has theoretical potential as a travel route. The actual land use data do not specifically indicate any Innu travel or settlement along this tributary, but they do indicate an Innu travel route leading south from the Eagle River toward the Paradise and St. Paul Rivers in this general area, and in fact the headwaters of this tributary lie in close proximity to the headwaters of both Paradise and St. Paul Rivers. It will be recalled that the Innu land use data in general decline in quality in areas approaching Sandwich Bay and the Labrador coast, and for this reason the area was deemed to have potential, even though specific land use indicators were lacking.

5.2.9.2 Summary of Testing Effort and Survey Coverage

One team spent one and a half days surveying the Eagle Tributary area by canoe. The geographic extent of the survey was limited to a confluence area less than a kilometer south of the proposed highway crossing, and to a small lake upstream from the confluence. In all, six testing locations were investigated, and 123 testpits excavated at five of these.

Ninety-seven of the testpits were excavated at four testing locations at the confluence. Testing in this area yielded entirely negative results. It was initially feared that potentially habitable locations would be difficult to find in the narrow wooded fringe along the waterways; past work on the Plateau (Schwarz 1998) suggested that these waterway margins often consisted of a ridge of tumbled boulders unsuitable for settlement and backed by wet deposits. While this was often true, several small, habitable areas were found which proved suitable for testing.

Two testing locations were located on a small lake upstream from the confluence. Testing at one of these yielded the only site recorded in this component.

Survey coverage should be considered high within the relatively constrained area that was investigated, most strategic locations were investigated, and within these, each habitable area was adequately tested. The tributary area as a whole, however, can only be considered to have been briefly sampled.

5.2.9.3 Description of Sites Discovered

Eagle Tributary Cuttings 1 (13B/16 Ethno-01)

Eagle Tributary Cuttings 1 is situated on a broad point alongside a rapids and near the mouth of a brook inflow. A short distance behind the shore, dry, level elevated ground under spruce-sphagnum forest offers an unusually attractive campsite location for the plateau, where the forested fringe of waterways often turns out to be a bouldery ridge backed by bog. Unfortunately, 26 testpits excavated here yielded negative results. The sole surface-visible sign of land use consisted of one very old-looking axe-cut stump.

5.2.9.4 Summary

Land use indicators for the Eagle Tributary component are lacking, but it is not clear whether this results from lacunae in the land use data or from a pattern of traditional land use that is truly limited. Whichever is the case, the lack of land use data does make it more difficult to identify and target specific testing locations in the area. The limited sampling undertaken in 2002 establishes that the area has been occupied, or at least traversed, in the past, but further work is required to determine the actual nature and extent of land use in the area.

5.2.10 Component 10 (Mestekaumau-nipi)

5.2.10.1 Introduction

Like Keupash-nipi and Little Parke Lake, Mestekaumau-nipi is a shallow body of water dotted with numerous sub-surface and above-water glacial erratics. The elevation of the lake is 348 m asl, and the surrounding land is no more than 1.5 m above lake level. Its shoreline comprises large stretches of open bog and was one of the wettest test components. Wooded sectors on the northwestern shore, on the long point of land on the western shore, and intermittent woods along the southeast were also relatively wet. The proposed highway corridor will run approximately 2.5 kilometres from the lake's northwestern shore. The survey strategy consisted of intensive visual inspection of most of the shoreline, as well as test pitting along the central spine of the point of land on the western shore.

Like Component 7, Mestekaumau-nipi was chosen for archaeological testing on the basis of LAMAP information that indicates travel routes crossing throughout this area as well as four LAMAP points. Three of the land use points are on the southeast shore, and a fourth is in the southwest corner of the lake. Aerial photo inspection further identified a low terrace along the spine of the long point of land on its western shore that merited testing.

5.2.10.2 Summary of Testing Effort and Survey Coverage

The entire shoreline of Mestekaumau-nipi was visually inspected, either from the water's edge or on foot, for axe-cut timbers, camp clearings, and other material remains. Four main testing zones included the southeastern shore of the lake, taking in the entire area indicated by three of the LAMAP points. This stretch consisted of intermittent open bogs and wet woods. The southwestern corner of the lake, a large expanse of open bog, was thoroughly inspected. Sections of the northwestern part of the lake, also open bog, were carefully walked. The point of land was test pitted with 66 test pits throughout. A sand lens appeared in some test pits at the western end of the point, but the majority showed deep sphagnum and peat development.

5.2.10.3 Description of Sites Discovered

No sites were located in Component 10.

5.2.10.4 Summary

The absence of cultural material at Component 10 is presumably due to site decay, which reflects the time that has elapsed since the last period of land use. If, as in Compoent 7, land use in the area has declined in the second half of the twentieth century, then conceivably, evidence of overland travel, trapping, and winter camping may have decayed entirely in the intervening decades.

5.2.11 Component 11 (Uinikush West Waterway)

5.2.11.1 Introduction

West of Uinikush Lake lies a long, narrow (5km by .25km) lake oriented east-west. The proposed highway route runs a short distance north of this lake as it approaches Uinikush from the west. This waterway lies within the same belt of rolling hills as Uinikush and lies at the uppermost limit of the Eagle River system, with the divide between the Kenamu and Eagle drainages running less than a kilometer from the western end of the lake. This waterway forms part of the principal travel route leading from the Kenamu River to Uinikush Lake and thence to the southern lakes of the Eagle Plateau. It was not originally selected for investigation, however, because specific land use data indicating the presence of campsites or other land use points were lacking. Following the Pre-Fieldwork Overview Research, however, it was clear in the informant interview data that this travel route was particularly important, and that campsites should be expected in many places along the shore of this waterway. Though specific campsite locations were still lacking, the informant interview results were clearly suggestive and fieldwork along this waterway was consequently incorporated into the 2002 Field Research program.

5.2.11.2 Summary of Testing Effort and Survey Coverage

One team spent two and a half days surveying waterway west of Uinikush by canoe and on foot. In the absence of any specific land use data to assist in targeting the testing effort, the survey strategy focused on locations of theoretical potential, including prominent points of land and stream inflows and outflows. In all, 22 testing locations were investigated, and 336 testpits were excavated at seventeen of these. Survey coverage must be considered intensive and comprehensive; all habitable strategic locations were tested, and adequate testing coverage was achieved in all habitable areas.

Survey results were negative in all but one location, a disappointing result in view of the intensive survey

coverage.

5.2.11.3 Description of Sites Discovered

Uinikush West Waterway 1 (*13B/13 Ethno-19*)

The only evidence for human occupation was found on a boggy point of land at the western end of the lake, beside the mouth of a small brook. The bog here is potentially suitable for winter camps, though there was no surface-visible evidence, but on the point at the very edge of the shore, several low-cut stumps were noted. This does not appear to be a campsite, but may have been a canoe haulout at the terminus of the portage to Salmon River and the Kenamu. This said, there is no evidence for a portage trail leading west from here. While the area around the cuttings was not suitable for testing, scattered level patches were found on rising ground immediately behind the point and along the shoreline to the east. Forty-seven testpits excavated in these areas were negative.

5.2.11.4 Summary

Relative to the size of this component, survey effort was extremely intensive and it is unlikely that significant undiscovered archaeological remains exist here. Since only a single site was recorded, we must infer that the archaeological potential is low. This does not accord with informant interview data suggesting that campsites should be numerous, but it may be significant that here, unlike other areas, informants were unable to identify any specific campsite locations. It is possible that here, so close to Uinikush, travel stops were common but generally brief, consisting of boil-ups, or at most very short-term camps which have not left conspicuous remains.

5.2.12 Component 12 (Paradise River Crossing)

5.2.12.1 Introduction

The Paradise River crossing was the easternmost Component in the 2002 historic resources study. The proposed Phase III highway will cross the Paradise River approximately 1 kilometre north of the survey area, which lies in the area of two streams that flow into the Paradise River where it bends westward. The streams are locally known as Crooked Brook (the western stream) and South Feeder (the eastern stream). Both are fast flowing, rocky, and could only be crossed on foot at a few locations. The Paradise River in this area is characterized by continuous rapids; it is shallow with many large erratics throughout. All of the surveying was done on foot and for the most part consisted of testing open lichen woodland terraces. Only the western shore of Crooked Feeder required the traversing of dense forest in order to check for terraces and reach test areas.

Testing in this region was evaluated on the basis of aerial photo inspection and identification of terrace features. Informant interviews in Cartwright identified a number of trappers who travel the Paradise River in winter. One trap line runs directly through the test area and will be bisected by the highway. Paradise River is indicated as forming part of an Innu travel route leading from Sandwich Bay south to the St. Paul's River and the Québec North Shore, but Innu land use data here are sparser than elsewhere in the Project Area.

5.2.12. 2 Summary of Testing Effort and Survey Strategy

Seven testing zones were investigated in the inflow area of South Feeder and Crooked Brook, six of which were test pitted for a total of 485 test pits. The entire area was also given careful visual inspection for signs of camp sites and axe-cut wood.

5.2.12. 3 Description of Sites Discovered

No archaeological material was found at Component 12.

5.2.12.4 Summary

The archaeological potential for this part of the river is indeterminate. The Paradise River has served as an important travel artery for Innu travelling between the Québec North Shore and Lake Melville since the time of European contact, and undoubtedly served the same purpose during the precontact period. The results of the 2002 survey were negative but represents a relatively small sampling effort in a relatively restricted area. It is not unlikely that future testing will yield evidence of cultural material along the interior sections of this river.

6.0 SUMMARY AND DISCUSSION

6.1 Project Area Overview

The 2002 Historic Resources Research Study was designed to serve as a component study for the Trans-Labrador Highway Phase III EIS and as a precursor to more detailed Historic Resources Impact Assessment along the actual right-of-way once the precise highway route is finalized. The objective was to identify the location of significant historic resources within a 10 km corridor along the route which may suffer indirect impacts as a result of increased vehicle access to this hitherto remote area.

The Study commenced with a Pre-Fieldwork Overview Research Phase which included review of archaeological, ethnographic and geomorphological literature, review of Innu Nation land use data, air photo analysis, and a program of informant interviews in Cartwright and western Lake Melville. The results of this research provided general contextual information to assist in the interpretation of field results, and also allowed the identification of twelve areas of enhanced potential (or *Components*) distributed along the route which were targeted for field investigation. Pre-Fieldwork Overview Research was followed by a program of Field Research in which two field teams were deployed to these components for periods of 1-6 days each. On completion of the fieldwork, 128 specific testing locations had been investigated in these twelve field components. Testing activities included surface inspection and the excavation of 3944 testpits.

6.2 Results

Pre-Fieldwork Overview Research indicated that archaeological potential was particularly high at the major river crossings (Churchill, Kenamu, Eagle and Paradise), and on lakes at the western edge of the Eagle Plateau. Several smaller lakes on the central plateau also appeared to have some

potential to yield sites. Highlights of the research results included:

- Churchill River/Lake Melville Plain, where higher terraces have theoretical potential to yield very early precontact sites depending on the date of deglaciation of the region;

- Kenamu River, where evidence for Innu and Metis land use is both abundant and detailed;

- The western plateau, where traditional Innu travel routes lead from the Kenamu to the large lakes of the southwestern plateau, a number of these routes converging on Uinikush Lake;

- The central and Eastern Plateau where there are indications of both Innu settlement and also trapping by Metis from Cartwright, though with the possible exception of Eagle Forks, land use indicators are not abundant. This may be due in part to reduced land use on the central plateau outside the major lakes, following the introduction of the Outpost Program.

The 2002 Field Research program led to the identification of 37 archaeological and ethnographic sites. More than a third of these (13) were found on Uinikush Lake. Next in importance was the Kenamu, which yielded nine sites. Seven sites were recorded on Keupash-nipi, just east of Uinikush, and five at the Eagle River Forks. The remaining components yielded a single site or none at all. In terms of cultural affiliation, most of the sites are definitely or probably Innu, with some definite or probable Metis sites being recorded as well on the Kenamu and Eagle Forks. In general, the Field Research results mirror the Pre-Fieldwork Overview Research results, reflecting particularly intensive Innu and Metis land use on the Kenamu River, with Innu settlement extensive as well on the western plateau, on the travel routes leading from the Kenamu River to the large plateau lakes.

Thirty-five of the thirty-seven sites date to the contemporary or late historic periods (in most cases likely after 1950), a pattern which almost certainly reflects the greater preservation probability and visibility of

sites dating to the latter half of the twentieth century. Relatively few sites appear to be in current use, which may relate to the fact that the highway corridor Project Area is situated to avoid the larger air-accessible lakes favoured by Innu families since the introduction of the Outpost Program. The remaining two are precontact sites, one located on Uinikush Lake, the other on the Kenamu, at the mouth of Salmon River. Both of these areas are identified in land use data and informant interviews as important locations of traditional Innu settlement and harvesting occupied during seasonal moves between western Lake Melville and the lakes of the Eagle Plateau, and their role in precontact settlement patterns may have been similar. Both of these sites date to the Intermediate period (broadly, 3500-2000 BP), a period during which "Indian" settlement appears to have been particularly intensive in the interior, based on the results of recent archaeological assessments across interior Labrador. This is also a period of substantial Palaeoeskimo settlement on the coast.

6.3 Data Gaps

6.3.1 Pre-Fieldwork Overview Research Data Gaps

A number of data gaps remain following completion of the Pre-Fieldwork Overview Research. Most of these cannot be readily rectified in the context of assessment of the TLH Phase III. These data gaps and the potential for rectifying them, may be summarized as follows:

- The researchers did not have access to data on land use by Innu from the Côte-Nord. Such data would substantially augment the geographic coverage of land use data across the Study Area, particularly the southern portion. To the extent that land use by Innu from Quebec also extends as far as the Eagle Plateau, these data would also increase our understanding of Innu land use within the Project Area. There is no prospect for rectifying this data gap in the context of the TLH Phase III assessment;

- The researchers did not have access to data on land use by Metis from the south coast of

Labrador. The informant interview program in Cartwright was intended to partly rectify this gap.

- Innu Land use data are sparse for the eastern portions of the Eagle Plateau, the lower Eagle River and Paradise River. This results from the fact that Innu land use here has declined during the lifetimes of the oldest informants available to provide land use data. While this data gap cannot be rectified, its effects were reduced in the 2002 Field Research by placing less emphasis on the land use data when identifying field research components, and by targeting potentially strategic locations even when land use indicators were sparse or lacking.

- The results of the informant interview are representative in terms of the key informants available to provide information today, but obviously many key informants are now deceased. This creates numerous data gaps, in that interview information now covers only a (relatively) narrow time period, and includes certain geographic limitations as well. There is no prospect for rectifying this data gap;

- Geomorphological data at present do not allow us to determine the date of deglaciation in the western Lake Melville Area. The current hypotheses have very different implications for assessing archaeological potential in the region. As a result, the potential of high-elevation terraces around the Lake Melville Plain to yield early archaeological sites is not established. This data gap was rectified in the Field Research Program by targeting high-elevation terraces in some components in an effort to test the alternative hypotheses.

- Fine-scale air photo coverage was not available to the researchers during the 2002 Historic Resources Research Study. This data cannot be rectified in the context of the 2002 research, but new photography has now been taken along the route and should be available for subsequent assessment of the right-of-way.

6.3.2 Field Research Data Gaps

A number of data gaps also remain following completion of the 2002 Field Research program. Most of these can be either rectified or compensated for, in the context of subsequent assessment of the right-of-way. They may be summarized as follows:

- The Field Research program does not represent a detailed assessment of the TLH Phase III route, only of selected high-potential areas distributed along that route. Subsequent assessment of the right-of-way and other project features, such as borrow areas, will rectify this;

- Even the actual surveyed components can only be considered sampled in most cases (though certain components in the Uinikush-Keupash-nipi area have now been sampled intensively), and given the limited work previously undertaken across most of the Project Area, the 2002 field research represents only a preliminary investigation of the area. Subsequent assessment of the right-of-way will again increase the level of sampling effort within the Project Area.

- In terms of the research results, the scarcity of evidence for sites dating prior to the first half of the twentieth century could be considered a data gap. This may reflect the low site visibility of early historic sites in general; in this regard it is worth noting that several locations clearly represented artificial clearings, presumably for campsites, but testpitting results were negative; the low visibility of early historic sites may involve not only reduced surface-visibility, but also a low density of subsurface debris as well. The scarcity of evidence for early historic occupation may also be a real culture-historical phenomenon, if such settlement was focused on the large lake groups deliberately avoided by the TLH Phase III route;

- Also in terms of research results, few sites were recorded on the central and eastern plateau outside of the Eagle Forks area; this may result from the same factors discussed above: reduced

archaeological visibility owing to a decline in recent land use, and a genuinely low level of land use in the areas actually traversed by the Project Area;

- Owing to difficulties of weather and river currents, certain specific data gaps can also be identified in the field assessment of the Kenamu, Eagle, and Paradise Crossings. On the Kenamu, difficulties in canoeing upstream served to limit survey coverage below what might otherwise have been achieved; this was particularly true upstream from the proposed highway crossing. On the Eagle River, for a variety of reasons sampling effort was limited to the Forks itself and to the principal rapids; unfortunately, it was not possible to ground-truth any of the three land use locations identified within the survey area here. Finally, on the Paradise River, abundant rapids confined the survey sampling effort to a relatively localized area round the confluences of a number of tributaries near the proposed crossing point.

6.4 Archaeological Potential within the Project Area

Overall, the results of the Pre-Fieldwork Overview Research suggest that for the most part the proposed Project Area highway route avoids many of the areas of greatest traditional Innu Land use, particularly the principal lakes of the Eagle Plateau. However, the proposed route does skirt or intersect several high-potential zones, particularly at the major river crossings. The results of the Field Research Program appear to confirm these suggestions.

Components 1, 2, 4, 5, 6, and 8 appear to have *High Archaeological Potential*. The potential along the Churchill River (Components 1 and 2) has already been established during previous assessments in the area though the 2002 work recovered no new sites. The Kenamu River, Uinikush Lake and Keupash-nipi (Components 4, 5 and 6) showed ample evidence for high archaeological potential following the Pre-Fieldwork Overview Research, and the Field Research Program confirmed this, recovering numerous sites attesting to recent and late historic Metis land use (on the Kenamu) and Innu land use (on the Kenamu, Keupash-nipi, and Uinikush). The Kenamu and Uinikush components also yielded the two precontact sites

recorded during the Field Research Program. Component 6 was identified in informant interviews as an important settlement area in the late historic period and field research once again confirmed this. Component 8 also yielded a relatively large number of Innu and Metis sites and its potential must be considered high though little was recovered from the immediate vicinity of the Forks, and the precise distribution of past settlement in the area remains unclear.

Components 7, 9 and 10 appear to have *Reduced Archaeological Potential*. Land use indicators identified in Components 7 and 10 were on the whole not confirmed in field surveys, though this may be due in part to reduced site visibility. Furthermore, these components can only be considered to have been sampled in the 2002 field research.

Component 11 appears to have *Low Archaeological Potential*. Informant interview data indicating substantial settlement was not confirmed in the field, though a single site was recorded. Sampling effort in this component was extremely high, and the scarcity of evidence here must be considered real. It may be that however extensive, settlement in this component was ephemeral and has left few traces.

Components 3 and 12 appear to have *Indeterminate Archaeological Potential*. Despite few land use indicators, both components have high theoretical potential: Component 3 because of the possibility that early archaeological sites may be encountered at high elevations close to marine limit, and Component 12 because Paradise River clearly served as a travel route and may once have been an important one. Both components have only seen limited sampling to date, and their potential cannot be confirmed or denied at this point.

It should be noted that any assessment of potential for these components can not necessarily be extrapolated beyond the Project Area. Components in the central and Eastern plateau for instance appear to have reduced potential but this does not necessarily hold for other central plateau locations, such as, for instance, Nekuanikau or Iatuekupau. Even within the Project Area it may be inappropriate to extrapolate the results too far beyond the components actually assessed.

However, there does seem to be some broad regional patterning in the apparent archaeological potential of the components investigated in 2002. To summarize, it appears that the Project Area intersects a broad area of high archaeological potential encompassing those components situated on the Kenamu and the western plateau (Components 4, 5, and 6). Important travel routes criss-cross this area linking the Kenamu to the western plateau and ultimately to the lakes of the central plateau and it is likely that the whole Project Area between the Kenamu and the western plateau is an area of enhanced potential. Further east, the proposed highway route appears to pass through sections of the central and eastern plateau that have much lower archaeological potential. As noted, the Churchill River crossing area is known to belong to an area of high potential, while archaeological potential remains indeterminate on the margins of the Lake Melville Plain to the south, as well as the Paradise River crossing at the eastern end of the Project Area.

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