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# Heritage Resources Characterization Study: Lake St. Martin Outlet Channels and Proposed All Season Access Road



Prepared for M. Forster  
Enterprises and Manitoba  
Infrastructure

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## 1.0 Introduction

Manitoba Infrastructure (MI) is currently developing options to address ongoing flood issues in the Assiniboine River and Lake Manitoba watershed basins. As part of this endeavour, MI initiated the Assiniboine River & Lake Manitoba Basins Flood Mitigation Study. This study, which was completed in 2011, included several components. In particular, the "Assiniboine River & Lake Manitoba Basins Flood Mitigation Study Lake Manitoba & Lake St. Martin Outlet Channels Conceptual Design - Stage 1 - Deliverable No: LMB-01" (KGS Group 2014) and the "Assiniboine River & Lake Manitoba Basins - Flood Mitigation Study LMB & LSM Outlet Channels Conceptual Design - Stage 2" (KGS Group 2016) were key to identifying future flood protection initiatives for the Assiniboine River and Lake Manitoba watershed basins.

The Stage 1 and Stage 2 Conceptual Designs prepared by KGS and MI included the three following components:

- further development of the Lake St. Martin Outlet Channel (LSMOC), which involves development of a channel in the area referred to as Reach 2 and completion of the channel referred to as Reach 3;
- construction and operation of a new channel from Lake Manitoba to Lake St. Martin to increase flow capacity and expedite movement of flood waters between these waterbodies; and
- construction and operation of an All Season Road (ASR) in the area of the Lake St. Martin Outlet Channels to facilitate year-round vehicle, crew and equipment access to the Lake St. Martin Outlet Channels.

These three main components formed the overall MI Lake Manitoba and Lake St. Martin Access Road and Outlet Channels Project (the Project) at the time of this writing.

Heritage resources are protected under *The Manitoba Heritage Resources Act (1986) (The Act)*. Heritage resources include i) a heritage site; ii) a heritage object, and 3) any work or assembly of works of nature or of human endeavour that is of value for its archaeological, palaeontological, pre-historic, historic, cultural, natural, scientific or aesthetic features, and may be in the form of sites or objects or a combination thereof (*The Act*, Definitions: 3). Found human remains are further protected by Manitoba's Policy Concerning the Reporting, Exhumation and Reburial of Found Human Remains (1987). The Policy refers to burials and found human remains that occur outside of registered cemeteries and which may consist of unregistered burial grounds, abandoned graves and isolated human elements.

Heritage resources are considered non-renewable resources that are easily disturbed by development and natural phenomena. A Heritage Resources Impact Assessment (HRIA) is required when heritage resources are suspected within an area of development (*The Act*, Section 12 (1) & (2): p19 1986). The broader Interlake area in which the Project is situated has previously been found to contain heritage resources related to Pre-European Contact and the Historic Period (Riddle 1984). As such, desktop and field studies were conducted within the LSMOC and proposed ASR Project area to inform MI of the potential heritage resources within the study area prior to Project activities.

## 2.0 Project Study Area

Given that the information collected for the baseline studies will be used in the environmental assessment for the Project, the study design for the heritage resources studies included the establishment of appropriate study area spatial boundaries. For the purposes of environmental assessment, the spatial boundaries of a project are typically described at three spatial scales: a Project Footprint (PF), a Local Study Area (LSA) and a Regional Study Area (RSA). PF is the physical space or directly affected area on which the Project components or activities are located; the LSA is the area beyond the Project footprint in which potential Project effects are measurable; and the RSA is the area beyond the LSA within which most potential indirect and cumulative effects will occur (CEAA 2015).

The PF for the LSMOC included the areas encompassed by the length and width of the proposed channel options, and the areas within LSM and Lake Winnipeg that will be affected by the temporary cofferdams during construction. The conceptual design information provided in KGS Group (2016) indicated the following dimensions for the LSMOC channel options:

- Reach 1: length of about 6 kilometres (km) and RoW width of 300 metres (m);
- Reach 2 berm: length of about 8.6 km and RoW width of 500m;
- Reach 3 - Johnson Beach Option: length of about 9.7 km and RoW width of 200 m; and
- Reach 3 - Willow Point Option: length of about 10.6 km and RoW width of 275 m.

As such, the PF area for the LSMOC options was designated as the area encompassed by the total length of the route option and the total width of the route option, including the RoW and areas within LSM and Lake Winnipeg that will be affected by the temporary cofferdams. The proposed ASR will have a gravel road base width of 7 m and a RoW width of 20 m (Lovie 2015, pers. comm.). Therefore, the PF for the proposed ASR was designated as the total length of the ASR, i.e., the length from the starting point of the affected areas of the municipal road to the end points of the LSMOC Reach 3 Winter Road Access and the LSMOC Reach 1 Access Road Alignment, times the total width of 20 m.

The LSA for the LSMOC was designated as the total length of each of the LSMOC options with a width of 5 km from either side of the centreline of the proposed LSMOC option, and the LSA for the proposed ASR was designated as the total length of the proposed ASR with a width of 5 km from either side of the centreline of the proposed ASR.

The RSA for the LSMOC and proposed ASR was designated as the total length of each of the LSMOC options and the total length of the proposed ASR, with a width of 20 km from either side of the centreline of the ASR. These 5 km and 20 km widths were selected based on the need to provide qualitative and quantitative information on the heritage resources within and surrounding the area of the LSMOC and proposed ASR, as required under existing legislation, and in accordance with environmental assessment requirements. Figure 1 provides an overview of the Project Study Area, including the RSA and LSA.

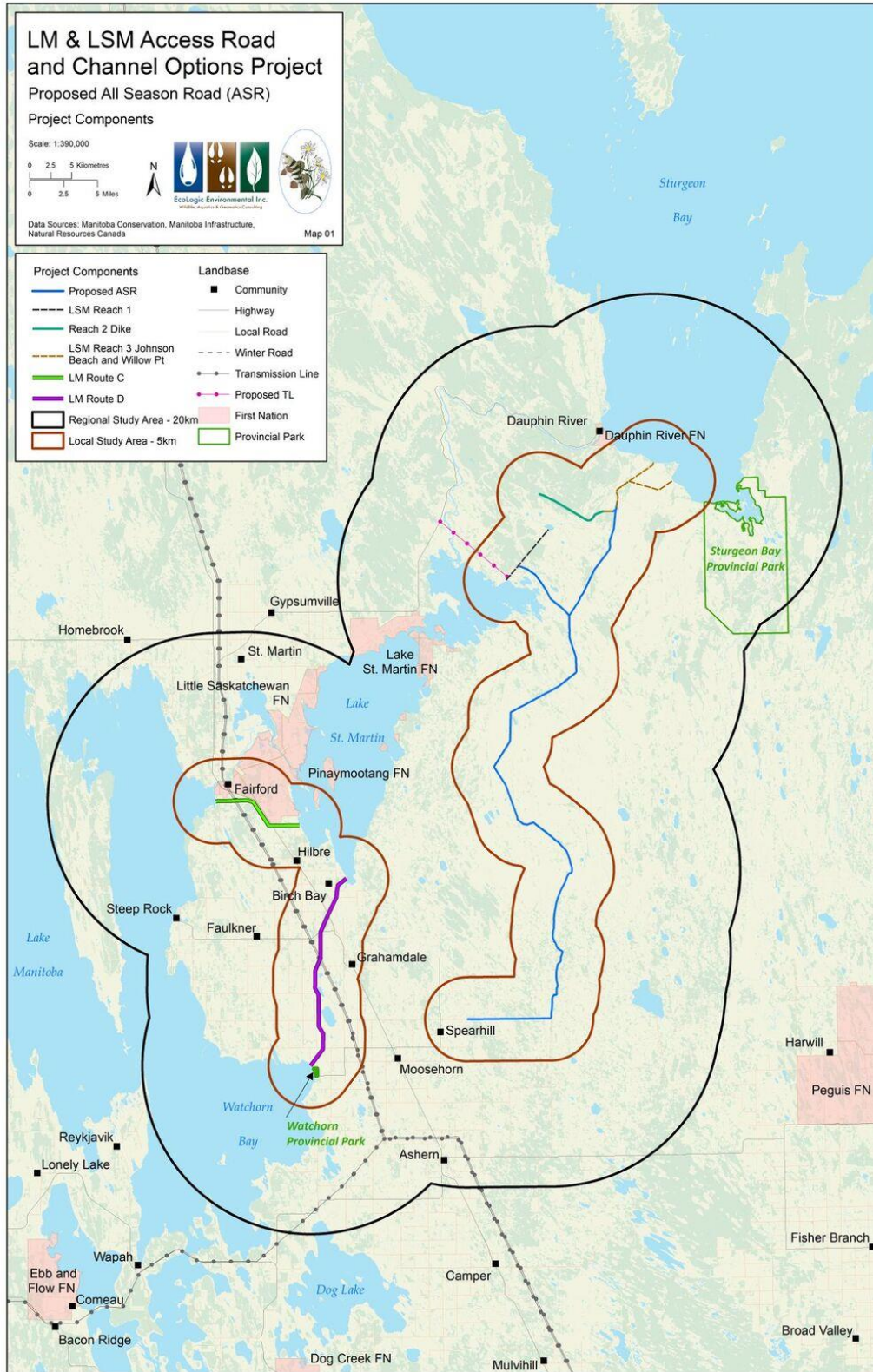


Figure 1. Project Study Area, including the selected Regional and Local Study Areas

### 3.0 Background Research Methods

Northern Lights Heritage Services Inc. (NLHS) applies the principles of cultural ecology to understanding the archaeological record. Cultural ecology is the study of human adaptations to social and physical environments and it is concerned with both the biological and cultural processes that enable human populations to survive, adapt and reproduce within a given or changing environment. It is a society's mode of ordering natural features and events (Honigman 1976:287). The record of the process is referred to as culture history, which testifies to events and happenings that shape humankind and define culture. It involves both spatial and temporal records that establish keystones of change and of continuity. Further, culture history contains both tangible and intangible components that serve to provide core cultural identity. It is for these reasons that numerous and various sources of information are researched to provide as thorough a background as possible. Culture history is captured through the archaeological, oral and historical records.

For this study, three sources of documentation were assessed: the archaeological and historical records and, where possible, accessible sources of traditional knowledge. These three data sets provided the necessary spatial and temporal descriptions of happenings and events that have affected the culture change of resident peoples and assisted in the assessment of tangible and intangible heritage resources. By applying these three very different sources of knowledge, an appreciation of the physical and cultural environments that may contain archaeological remains of past land use and occupancy is gained, and this understanding greatly assists in completing field investigations where no archaeological record exists.

### 4.0 Relevant Background Data

#### 4.1 The Natural Environment

The archaeological record of Manitoba contains evidence of First Peoples dating to 10,000 years ago in southwestern Manitoba with gradual movement into the interior following deglaciation and dewatering of glacial Lake Agassiz. Review of the changing physical and natural environment is important to understand since early people were engaged in an active subsistence economy of hunting and gathering that eventually evolved into a seasonal round of resource procurement (see Pettipas 1996).

The RSA lies within Ecoregion 155 (Interlake Plain), of the Boreal Plains Ecozone (Smith *et al.* 1998:190). The ecoregion is characterized by low relief Palaeozoic limestone rock with glacial outwash. Beach ridges of glacial materials are not as prevalent here as further to the south and west. The lands slope gently to LSM and to Lake Winnipeg. Both karst topography and meteoritic pocking of the land are present. One area of granitic outcrop is found at LSM (Teller 1984:183). This outcrop was first documented in 1858 by Hind, who identified the rock on Sugar Island and three smaller islands as gneiss with quartz veins; he named these the St. Martin Rocks (Hind 1971: Vii: 31-32).

The Manitoba Great Lakes changed in size and shape until today's present configuration (Figure 2). These processes had great bearing on the movement and migration of early human inhabitants in relation to available land. It is worth noting the large mesa-like feature visible on each of the map series has persisted from the first post glacial Lake Agassiz phase (7700 BP) to the present (Mataille *et al.* 1996).

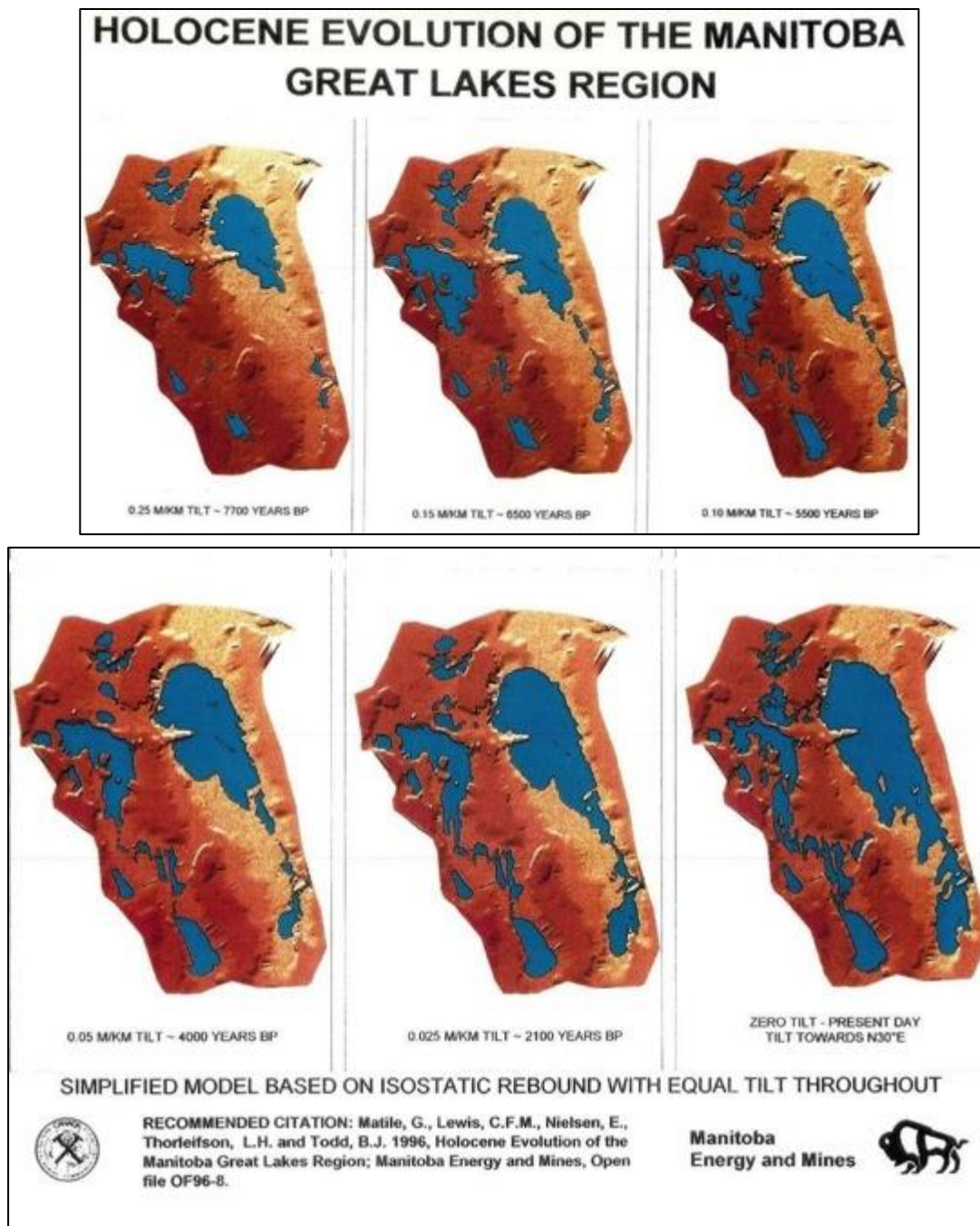


Figure 2. Map of the Evolution of Manitoba's Great Lakes (Courtesy of Manitoba Energy and Mines).



Known locally as “Big Ridge”, the feature rises 62 m above LSM (244 masl<sup>1</sup>) and with the highest point of the post-glacial ridge recorded as 306 masl. This prominent feature may have been an important landscape feature to early people.

The calcareous nature of the soils and imperfect drainage patterns contribute to poor quality of agricultural soils. Further, as part of the Manitoba Lowlands (First Prairie Level), the underlying Ordovician and Silurian bedrock causes a certain amount of salinity in water sources. Vegetation is limited to a mixed forest of balsam poplar (*Populus balsamifera*), trembling aspen (*Populus tremuloides*) and white spruce (*Picea glauca*) with jackpine (*Pinus banksiana*) found in raised, dry areas.

Seneca root (*Polygala senega*) grows profusely in dry areas and is a source of traditional medicines and cash economy for local First Nation and Metis. In the past, it was most likely an item traded at the Mandan and Shoshone Rendezvous, in which much of pre-European Native Americans participated. The Interlake produces much of the Seneca root for manufacture of pharmaceutical cold and cough remedies in Canada. Other herbs and plants contribute to a small, local medicinal practice.

The wetlands within the study area, in particular at LSM, are well known as breeding and staging grounds for waterfowl. The wooded areas provide habitat for elk (*Cervus elaphus*), white-tailed deer (*Odocoileus virginianus*), black bear (*Ursus americanus*) and grouse. Other fur-bearing animals such as beaver (*Castor canadensis*) are also present.

Trapping is not as prevalent now due to poor fur market prices. However, seasonal hunting occurs throughout the area.

The Interlake was not habitable until at least 8000 BP<sup>2</sup> or at the time that glacial Lake Agassiz had diminished to the extent that successional vegetation and wildlife were established. Immediately following the drainage of glacial Lake Agassiz other processes were also taking place. The retreat of the glaciers caused rebound of the land that had been hard pressed for thousands of years. This process, in addition to the slope/tilt of the land, played havoc with early drainage patterns.

## 4.2 The Archaeological Record

The overall archaeological record for the study area is not well documented, mainly due to lack of research. However, the record of the surrounding area indicates that ancient people could have been present in the vicinity probably by 7000-8000 years ago (ya) (Figure 3).

The Provincial Archaeological Site Inventory for the study area noted that only six registered archaeological sites were documented within the RSA. Five of the sites are located within the lands of the Pinaymootang First Nation, and one site is located within the lands of the Dauphin River First Nation. Four of the sites were identified as historic period and included fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca 2000 – 350 years ago), based on the stone tools and Native ceramics.

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<sup>1</sup> masl = metres above sea level

<sup>2</sup> BP is Before Present. The year 1950 marks the beginning of this time scale, which was established at the time of C-14 dating.

## General Cultural Chronology of Southern Manitoba

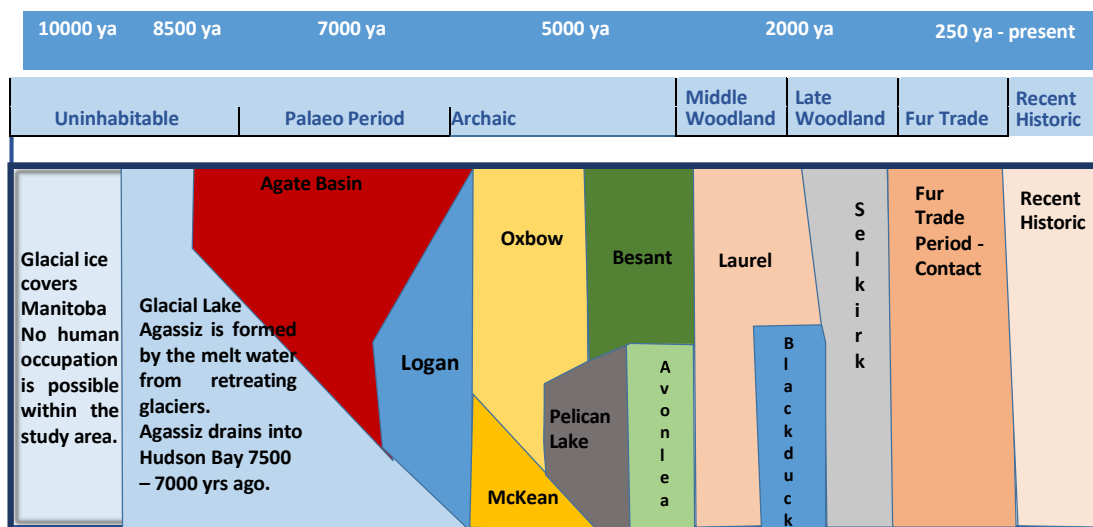


Figure 3. General Cultural Chronology of Southern Manitoba (Courtesy of NLHS).

To date, no archaeological sites have been registered within the LSMOC and ASR LSA. There may, however, be landowners who have private collections associated with their lands. A review of the Provincial designated sites and commemorative plaques indicated that there were no Provincial commemorations within the study area. However, a private plaque was noted to have been erected commemorating Spear Hill at some time in the past (pers. com. Historic Resources Branch 2015). The location of the plaque requires verification since it is noted by the Historic Resources Branch records to be on the southwest shore of LSM; however, Spear Hill is located some 30 km to the southeast.

The low number of archaeological sites is not reflective of the pre-European and historic periods of the study area, but rather shows that little or no archaeological studies have taken place throughout this area. For this reason, the search for baseline data was expanded to include areas immediately north and south of the RSA.

The expanded desktop review revealed a number of additional archaeological sites and heritage resources in the region, including campsites and palaeontological sites located south of Watchorn Provincial Park in the RSA, a workshop located northeast of Steeprock in the RSA, and an Uninterpreted site in the LMOC Route D LSA. There were no archaeological sites identified within the LSMOC and ASR LSA.

In 1984 and 1985 an archaeological field study was carried out by the Historic Resources Branch for the Western Interlake Planning District (Siglunes, St. Laurent, Coldwell and Eriksdale) (Riddle 1985; Riddle and Pettipas 1992). This study was successful in identifying sites and recording the findings of local collectors. During this study, many local collectors stepped forward and by the end of the survey 46 archaeological sites were identified. Thirteen of these sites were found inland away from water and consisted of stone tools and tool-making stone waste, indicating hunting in the interior regions; the remaining sites were located on the LM shore. The earliest occupation in this area appears to be associated with the Archaic cultural period ca. 4000-5000 BP, although there is the possibility of earlier occupation by Plano culture. The majority of the sites recorded during Riddle’s field work were associated with the Middle and Late Woodland periods (ca. 2000-350 years ago) when native pottery was a signature part of the artifact

assemblage.

Later, under the supervision of Petch (1994), an analysis of the ceramics recovered from the Bensa Tanki Site (Eflq-04) in 1984 was completed by Moravetz and Jezik (1994).

This analysis provided interesting Pre-European contact connections between the east side of Lake Winnipeg and Lakes Manitoba and Winnipegosis based on comparison of selected metric and non-metric attributes. Ceramics related to a tradition called Blackduck appear to have spread across north-central Manitoba from the Lake of the Woods area. According to Moravetz and Jezik 35 unique motifs representing 49 separate vessels were present in the Bensa Tanki collection. Attributes of lip/rim shape, design elements and presence/absence of punctates contributed to the overall motif (Figure 6).

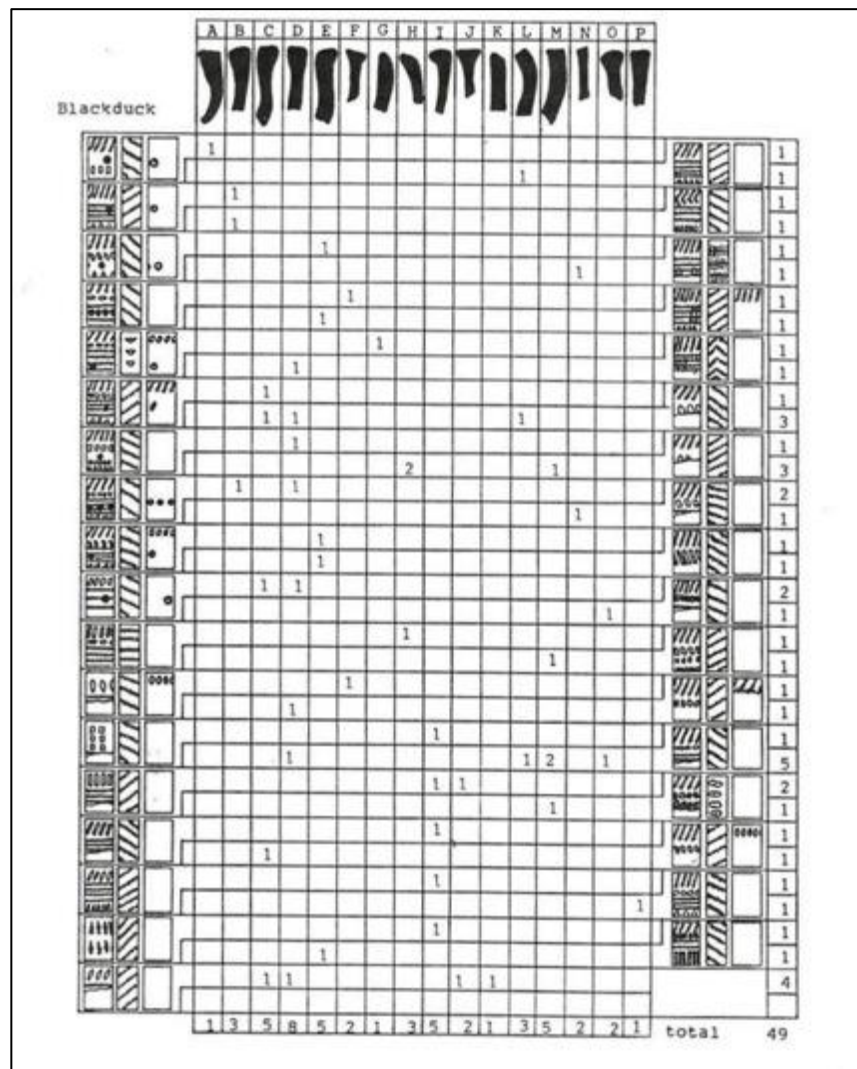


Figure 6. Ceramic Master Chart showing complex use of design attributes at sites south of the MI study area (Moravetz and Jezik 1994).

In 2000 NLHS conducted a field study of the Fairford River between LM and the bridge crossing at the

Fairford Reserve. Four new archaeological sites were registered and one formerly recorded site was revisited. The study was conducted for the Super Six Community Futures Development Corporation as part of their tourism promotion.

During HRIA and monitoring of installation of fibre-optic cable between Ashern and Dauphin, Manitoba at The Narrows, approximately 32 km southwest of Ashern, three archaeological sites were identified by NLHS (NLHS 2006). Ceramics representing Middle and Late Woodland periods were recovered. Further, several kilometres west of The Narrows a Thunderbird Nest is located near the northwest shore of LM. This area is actively used by the local First Nations (Petch, personal observation).

Since little previous archaeological survey has occurred within the project study area, it was difficult in determine the range of sites that could be expected. To characterize the Project study area, it was necessary to examine of the inventory of archaeological sites and heritage resources in the surrounding area. The intent of this examination was to determine if a set of reliable variables were present that could be used as proxies to predict the potential location of archaeological sites within the LSA.

Modeling the potential locations of archaeological sites is often carried out prior to archaeological field investigations in order to identify areas containing the highest potential for archaeological sites to occur. The predictive model examines a series of physical attributes that have been established as conducive to good site location. The four most reliable attributes are slope, nearness to water, vista and aspect. Other variables that can be included are: geographic features (eskers, beach ridges, bedrock terraces), converging water bodies, proximity of documented archaeological sites, elevation, relief, resource availability and soils.

A predictive model has the ability to identify preferred locations for human activity sites to occur, however, by itself it can only predict the potential physical location for sites. In order to understand the cultural process behind a site, local and indigenous knowledge sources provide humanization to archaeological sites. For this study both the known archaeological record and available indigenous knowledge (Traverse 1999, 2012) were used together in an attempt to understand where archaeological sites representing the First People were likely to occur. The historic record was also used to identify locations of European fur trade, Historic First People and Metis and recent immigrants' settlements. As well, the previously discussed mesa feature to the south of LSM was considered to have probability of ancient hunting sites.

After reviewing the existing archaeological record, it was determined that not enough data were available to reliably model the potential location of archaeological sites. However, the variables identified above were considered important to be used in planning field investigations.

### 4.3 The Historic Record

Earliest accounts of Europeans exploring the interior of the country can be found in the writings of Henry Kelsey, who in 1691 accompanied a party of Cree and Assiniboine into the prairies. His account, written in poetic format and spatially vague, suggests that he wintered to the north and west of the Interlake Region.

The Interlake Region was well known early on during the European fur trade and exploration periods because of the early French explorers such as Joseph Smith and La Vérendrye. The 1734 map prepared

about 1741 or 1742 by M. de la Jemerais, a member of the La Vérendrye expedition, suggests Lac des Prairies as LM with a river, probably the Little Saskatchewan/Dauphin River, clearly draining into Lake Winnipeg (Figure 7).

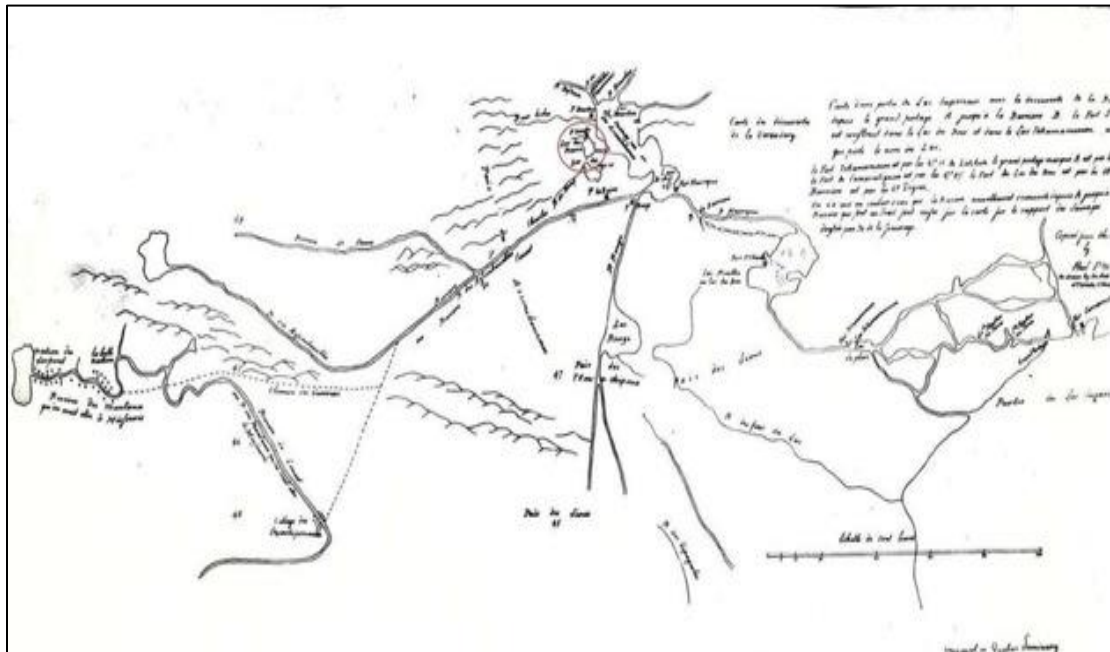


Figure 7. Map by the La Vérendrye Expedition of 1734 (Warkentin and Ruggles 1970).

The 1737 map provides a little more detail, including Steeprock River and *Rivière du Sioux trouble* which may refer to the Warpath River to the north of the Little Saskatchewan River (Figure 8). Fidler’s 1820 map clearly identifies LM, LSM and the Little Saskatchewan (Dauphin) River (Figure 9).

The first trade post at Partridge Crop was built in October 1795 by the North West Company (NWC) (HBCA B.51/a/1, 28). Duncan Cameron was postmaster from 1795 until *ca.* 1797. He remained in the Lake Winnipeg area during the early 1800s as indicated by letters written to him by Alexander Henry the Younger (Gough 1988: xlix). This early post may have been in the same vicinity as the 1818 NWC post, which was located on the “left bank” at the head of Partridge Crop River (HBCA B.22/e/1).

Independent traders J. Rheame and G. Lavolette were also in the Fairford area in the late 1790s (Lytwyn 1986:81) and it is possible their trading establishment was in close proximity to that of the NWC. Coues (1897:164) refers to a Monsieur Rheame who was fitted out by Cuthbert Grant in September 1797 for a post near “Falle à la Pedrix” or Partridge Falls. This reference is possibly the Partridge Crop area as Coues places this location somewhere between Little Saskatchewan River and Lake Winnipeg.



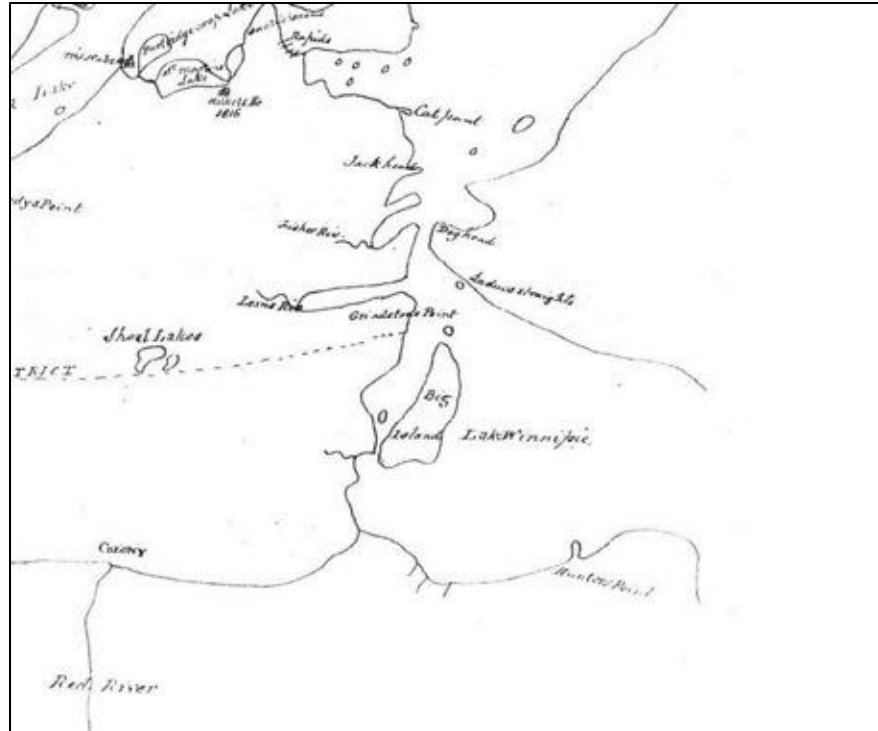


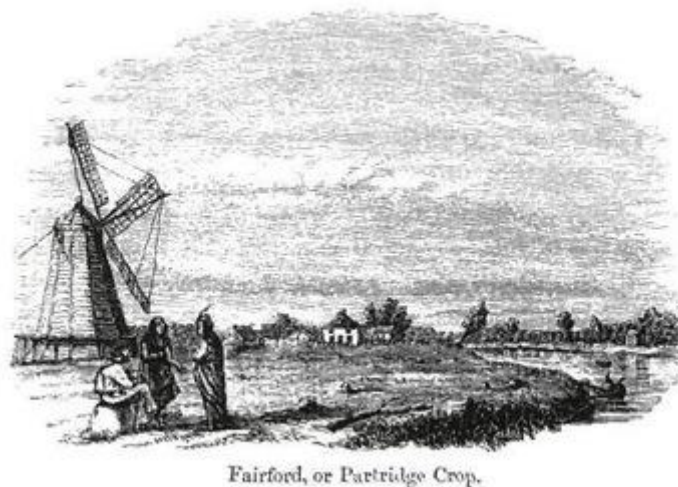
Figure 9. Peter Fidler's Map of the Interlake (1809) Hudson's Bay Company Archives.

The first Hudson Bay Company (HBC) post at Partridge Crop was constructed in the fall of 1819 and consisted of a main building measuring 36 feet x 16 feet (11.0 m x 4.9 m) divided into three apartments. A second smaller building, used to store fresh fish and meat, was also built (HBCA B.51/e/1 fo.13, 13d). In the main house, one apartment was built for the master, one as a trade shop and the third for the three men who wintered with McNab. Peter Fidler's "A Sketch a la Savage of the Manitoba District 1820" shows McNab's House on the north side of the river (Figure 9). His map also shows a second post at the east end of LSM identified as Halket's 1816. Thomas McNab was post manager at Partridge Crop from 1819 until ca. 1822 (HBCA B.51/e/1 fo.13, 13d). Trade does not appear to have been that good as Fidler mentions that there were few hunting Indians at Partridge Crop and most traded with the NWC (HBCA B.51/e/1, fo.13,13d). For this reason, the HBC house only operated during the winter months (September until May) (Coues 1897, fos. 2d, 3).

McNab began his fur trade career in 1797 as a labourer in the Albany District. He arrived in the Lake Winnipeg area in 1810 as an assistant trader and was on the Pigeon and Berens rivers and at Halket House before taking charge of the Partridge Crop Post. He retired to Montreal in 1821 but marriage records for the Parish of St. John's list Thomas McNab married to Mary, a Saulteaux (Anishinaabe) Indian, on December 18, 1827 (PAM MG 7, B7-1, M277). McNab evidently returned to Red River to homestead. He originally was granted a river lot in the present-day Parish of St. Boniface but, by 1835, had moved to the Parish of St. Clement (Sprague and Frye 1983: Table 3). McNab died in 1866 and was buried at St. John's Cathedral. Baptiste Richard replaced McNab as post manager at Partridge Crop in 1822 (HBCA D.4/1 fo. 66d). From 1823 until the mid-1840s, the HBC did not maintain a post at this location.

In June 1846, Sir George Simpson announced his intention to close Manitoba House on the west shore of LM and relocate at Partridge Crop (HBCA D.4/68 fo. 94-96d). The decision to move the trade post may have been the result of the Anglican mission that had been established at Partridge Crop in August 1842 by Reverend Abraham Cowley (C.M.S. A78). In 1851, the mission was renamed Fairford by David Anderson, Bishop of Rupertsland, after the birthplace of Reverend Cowley in Gloucestershire, England.

In 1858, Henry Youle Hind visited a “recently established” post when he visited Fairford (Hind 1971:38). The post visited by Hind, probably the last set of HBC buildings to be constructed at Fairford, was located on the south bank of the river about 4.8 km below LM (Figure 10). In 1891, the post consisted of one dwelling house with an attached kitchen, a sales shop with attached lean-to for storing coal oil, a provision store and a fish store (HBCA B.278/e/1). All buildings were log-constructed.



*Figure 10. Fairford Mission on the Fairford River near LM (Hind 1971).*

Portions of the Fairford Mission were surveyed into river lots by Dominion Land Surveyors during the 1870s and early 1880s (Figure 11). It is not known why a discontinuous arrangement of lots was established nor, with the exception of Lot 14, is it known why lots at these particular locations were created. Lot 14 was the site of the HBC post after 1856 and was set up as a HBC reserve in 1882 (HBCA RG1/9/1 p. 25).

Hind provided one of the earliest and most thorough descriptions of the land and people of the MI study area in his 1857/1858 Narrative of the Canadian Exploring Expeditions (Hind 1971). The purpose of the exploration expedition was to examine the country between Lake Superior and Red River to determine the best route of travel for expected migrants from the east, and to identify cultivatable lands and explore other potential economic properties in and around the Assiniboine and Saskatchewan rivers.

Hind approached the Dauphin River (also known as the Little Saskatchewan) from Lake Winnipeg, describing the Lower Silurian limestone base of the river and noting the speed of the river as “...a very rapid current, varying from one to four miles an hour” (Hind 1971: Vii:25).



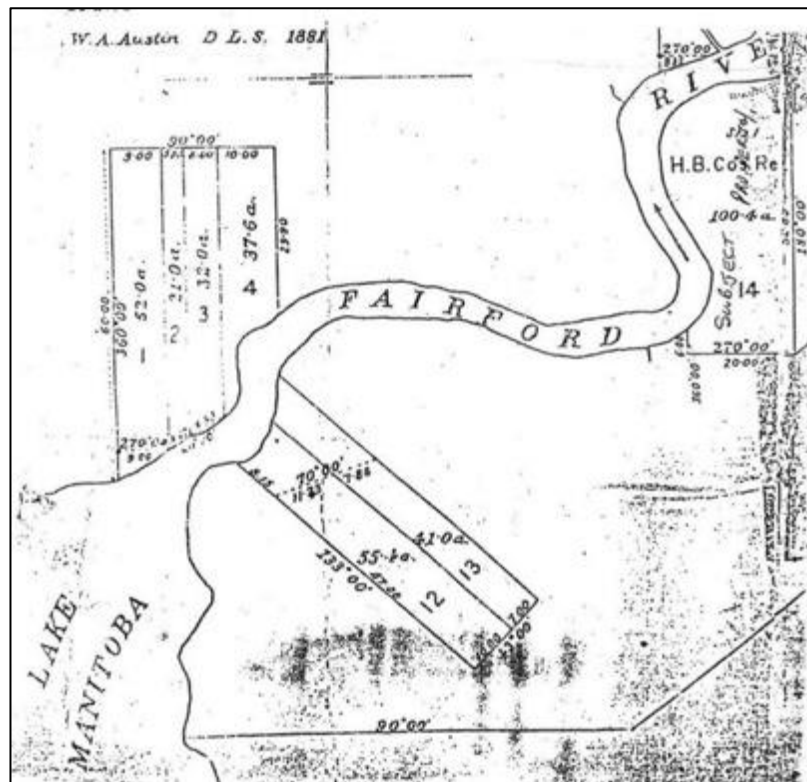


Figure 11. Early river lot plan of the Fairford Mission (Dominion Land Survey 1881).

River banks were described as 20 to 25 feet at the mouth of the river, diminishing in height as he proceeded upriver. Three miles upriver he noted "...a camp of Swampys [Cree] containing four tents)" (Hind 1971: Vii: 26) where he learned that the river was full of whitefish; an adjacent cranberry marsh was noted as well.

Nine miles from the mouth of the river Hind noted that the river banks were not more than 10 feet above the river but that they rarely flooded. The entourage of Swampy Cree that accompanied them were noted to travel in birch bark canoes and used "twisted cedar" rope to line their boats when their sails failed. Hind noted that the Cree were engaged in the fall fishing and were storing up dried and pounded whitefish and filling sturgeon bladders with whitefish oil. The Chief "...pointed out a portage path between the..." Little Saskatchewan "... river and the War-Path River, which forms the war-road of the Ojibways and Swampys of Lake Winnipeg when they proceed on their periodical excursions against the Sioux. This war road was much used in the earlier history of the natives of the Low Country..." (Hind 1971: Vii: 27-28).

Maple trees with signs of tapping were noted on Sugar Island, approximately 1 mile west of the LSM Narrows. The Chief stated that he "owned" the island. Spring sugar making was a very important part of the seasonal round of the Cree and Ojibway throughout the Interlake. While property rights are suggested, the lands were held in common and it was usually a "first come, first serve", where people postured for the best maple trees. Traditional knowledge based on observation and experience would have been critical to identifying the best trees.

John Tanner, captured as a child and raised by Ojibway in the late 1700s also described sugar making on Lake Winnipegosis (James [1858] 1956).

On reaching the abandoned Fairford Mission Hind commented that the land was "...very low and liable to be flooded in the autumn and spring" (Hind 1971: V 11:34). However, he did note that the spot was a popular campsite for the Cree. The land of the new Fairford settlement was 20 feet above the Fairford (aka Partridge Crop and Little Saskatchewan) River and approximately 2 miles from LM. Here a community of Cree and Metis Cree resided. The Sessional Papers of 1882 also remarked on the incorporation of agriculture into the First Nation economy, and further commented on the seasonal flooding that hindered further development.

*The Indians of the Reserves had made attempts at agriculture, but the reserves were largely on low lying areas, and in these wet years much of the land was flooded and unsuitable for cropping. Most were driven to seek out" the few areas of high land on the reserve, but the St. Marten band were flooded out of their homes and moved outside the reserve to find dry land for "farming" in (Canadian Parliament. Report of the Department of Indian Affairs. Sessional Papers 1882. Paper No. 6 pp108-112) Richtik (1964: 72).*

In 1857, while exploring the Saskatchewan River at Grand Rapid, Hind noted the connection of Cree between the Grand Rapid and Little Saskatchewan, stating that they "...generally winter at Fairford..." and... "summer at the Grand Rapid" (Hind 1971: Vi:474). He later noted tracking up the Little Saskatchewan River about 4 miles to a Cree encampment "...scooping large numbers of excellent white-fish from the eddies..." (Hind 1971: V8:489). He also described the two popular methods of fishing: construction of stone weirs and use of seine nets. Other important cultural practices noted were birch bark dishes, use of local salt carried in small birch bark containers (see Petch 1998), and map drawing which surpassed the "English" maps of the area.

In 1871, the Indigenous People of the Interlake area signed Treaty 2. By that time a cultural shift appears to have taken place and the people began to refer to themselves as Anishinaabeg or Ojibwa, rather than the Swampy Cree that Hind had noted 13 years earlier. There has been little or no study of the cultural "becoming" Ojibwa, except for a seminal discussion by Greenberg and Morrison (1982).

Among the first homesteaders were Ben and Minerva Laird who established a stop off eating place known as Lairdsville after 1908. The community was named Eriksdale after the Jonas Erikson family who had owned land where Eriksdale was built. Homesteaders were promised good land and cheap prices, they instead found largely stony, marshy land that was difficult to farm. Those who stayed adapted. The land had plenty of game, fowl, fish, berries, good water, and wood for shelter and warmth. Entrepreneurs saw the opportunity for development of business to serve the homesteaders and soon roads were built along with schools and churches. The R.M. of Eriksdale was formed in 1918.

By 1912, declining fur returns meant that the Fairford Post was closed and fur trade activity along the river was shifted to other areas such as The Pas and Fort Alexander. Local Indigenous People began to participate in modest agriculture, growing mainly potatoes and root crops, raising a few cattle and growing grass for hay.

But the traditional subsistence economy continued to provide much of the food and other necessities. Thus rivers, wetlands and other natural environments were necessary in order to practice seasonal harvesting of resources.

## 4.4 Available Traditional and Local Knowledge

Traditional Knowledge (TK) has been defined by numerous scholars, environmentalists and anthropologists, but perhaps the most relevant definition comes from the people who actually use and appreciate the importance of this form of understanding. TK is concerned with the interconnectedness of all things. The expression “all things are related” is the philosophical tenet that drives Aboriginal thought. The Assembly of First Nations (AFN) defines traditional knowledge as “*the collective knowledge of traditions used by Indigenous groups to sustain and adapt themselves to their environment over time*” ([http://www.afn.ca/uploads/files/env/ns\\_traditional\\_knowledge.pdf](http://www.afn.ca/uploads/files/env/ns_traditional_knowledge.pdf)).

Traditional knowledge is a universal concept that can be found globally among cultures that maintain direct and intimate relationships with their environment. It represents a knowledge base that, while it is dynamic in accepting or rejecting new experiences and knowledge, maintains the code of ethics and oral historiography that has been passed down through the oral tradition and by observation.

Firstly, TK should not be viewed as data. This appears to be the greatest misunderstanding of western scientists where TK is used in terms of land use; and it is important to differentiate between the terms “use” and “occupancy” since these two terms represent two different aspects of knowledge.

According to Tobias,

*Use refers to the harvesting of resources...Use also includes travel required to engage in such activities. By contrast, occupancy is evidenced by fixed cultural sites such as habitations, sacred areas, burial grounds, place names, place-based legends and stories...* (2009:33).

He suggested that occupancy mapping was a more reliable indicator of a longstanding relationship to the lands than land-use maps. (Tobias 2009:33); however, he cautioned that land-use maps often included “far-flung” use of individual, once in a lifetime travel which was not always relevant to the study. The mapping exercise tends to measure these infrequent travels in the same manner as places close to home that are used regularly by many people. Therefore “*...geographic extent of use tends to be larger than that of occupancy*” (Tobias 2009:33). This can result in an inaccurate knowledge base, given the far-range mobility of modern-day populations.

Usher also noted that, “*limits of occupancy are likely to be much more stable over time than the limits of use; the mapping of occupancy, in contrast to use, would normally reveal both much less overlap and a more obvious boundary between aboriginal territories*” (Usher 2003:365-382).

Traditional Knowledge of the First Nations within the study area is minimal since few studies have been conducted. However, Traverse [Ballard]’s MA Thesis (1999) and PhD Dissertation (2012) provide important traditional knowledge from the LSM First Nation that is relevant to the RSA and LSA. No maps were available but Ballard does speak to certain general areas where resource use occurs.

Both her studies were related to the changing water regimes caused by the Fairford Dam and the 2011 flooding of LSM. This, plus anecdotes such as from Warms (2001), Russenholt (nd) and Hind’s descriptive narration (1971) provide evidence of an active and varied resource base and seasonal round that would span distances of over 160 km.

Anecdotal information was provided by John Warms (2001) regarding the history of local hideouts of the escaped convict Percy Moggey in 1960 (Figure 12).



*Figure 12. Percy Moggey's hideout located within the regional study area near Spear Hill (photo courtesy of Warmes 2001).*

Areas of Seneca root digging by local First Nations were identified occurring in the Spear Hill area. This location is verified by Turcotte's 1997 thesis "*Towards Sustainable Harvesting of Seneca Snakeroot (Polygala senega L.) on Manitoba Hydro Rights-of-Way*" where the area in the vicinity of Spear Hill is also identified as an area of distribution (Figure 13).

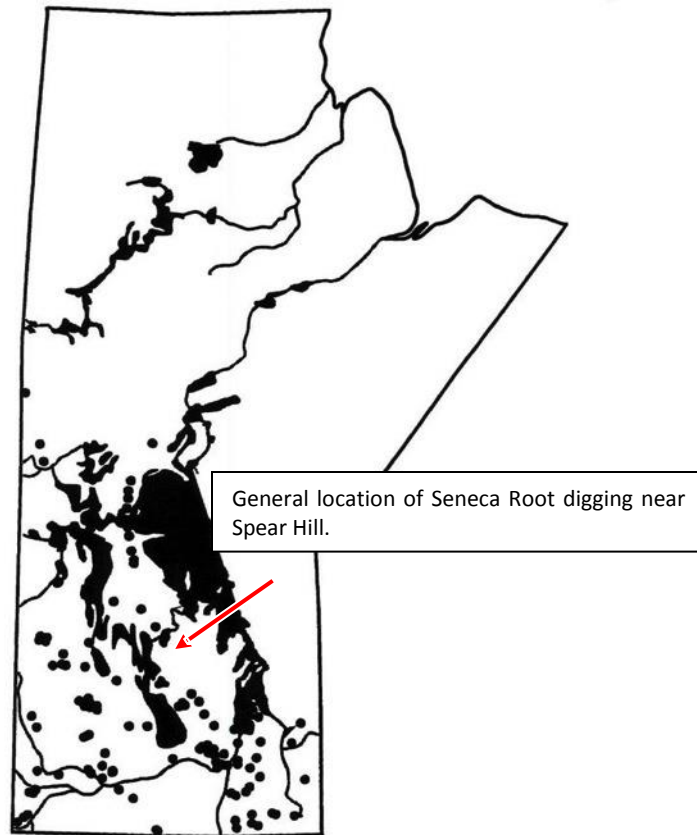


Figure 2.3. Distribution of *Polygala senega* L. in Manitoba.

Figure 13. Map of Seneca Root Distribution in Manitoba (Courtesy of Turcotte 1997).

## 5.0 Analysis

### 5.1 Desktop Results

The existing LSMOC Reach 1, Reach 2 and Reach 3 are located in an area of low and swampy lands. Current access to the LSMOC is by way of the existing municipal road, forestry road and a winter road that extends to Reach 1 and Reach 3. Background information obtained through MI (2015) indicated that the roads are used mainly by hunters for seasonal hunting and were used for one period during winter 2011/12 to access Reach 1 and Reach 3. Google Earth maps show a network of ATV and snow machine trails throughout the area surrounding the current access roads. In the past, a forestry fire tower was present along the Forestry Road; this structure has now been removed. As noted earlier in this report, no archaeological sites have been registered within the LSMOC and ASR study area.

Early traditional knowledge observations in Hind's description of his exploratory mission through the Dauphin/Little Saskatchewan River provides an anecdotal account of First Nation activities. As Hind indicated, there was increased seasonal activity along the river, especially near the rapids where fishing was pursued, mainly in the autumn associated with whitefish and cranberry harvesting around the mouth of the Big Buffalo Creek. Fishing and other resource harvesting was reported to have continued throughout the winter months.

Areas of archaeological potential usually occur within 100 m of a water body, on a  $< 2^\circ$  slope with minimum of  $180^\circ$  vista and a southeast aspect. Since most of these physical variables have not changed significantly in the past 5000 years they are considered relatively stable. Other considerations such soil type, drainage and resources may have changed due to climatic conditions and isostasy. There may be heritage resources from an earlier time that are deeply buried beneath soils. Given the ethnographic information from Hind and considering the variables for optimal camp selection, raised areas with the above noted proxies would be important in identifying areas of potential archaeological site location. Other human decision-making and cultural factors, such as warring factions also come into play; these are more difficult to detect. Flooding, forest fires and beaver damming are important challenges to site allocation.

Hind noted occasional spring flooding at LSM that occasionally forced people to seek temporary relief on higher lands. This relief may have included refuge along the most dominant landscape feature in the area. Richtik noted that the ridge to the south-southeast of LSM was locally referred to as "Big Ridge" (Richtik 1964:6). This ridge, as noticed in the Holocene maps in Figure 2 (Matille et al. 1998) appears as a prominent waymarker immediately after the draining of glacial Lake Agassiz. Aside from it being a potential refugium, it also holds high potential for archaeological site location as a strategic hunting lookout point.

Given that the altithermal warming some 7500-5000 years ago would have elicited a much different environment, and given that two lakes called Big and Little Buffalo drain into Buffalo Creek, there is a strong possibility that bison hunting occurred in this area. One could expect to find former *Bison antiquus*, *Bison bison* and more recent *Bison bison bison* faunal remains and perhaps bison kill and butchering sites in and around the ridge and lakes.

Small pockets of Seneca root may be found in some of the drier areas. According to Turcotte the species flourishes

*“...in dry, unshaded sites. It shows a clear preference for calcareous (pH > 7). limestone-based soils, and is rarely found on the acidic substrates of the Canadian Shield. Seneca snakeroot also shows a strong preference for well-drained soils. While it does occur in moderately-drained sites, it is not found in wet, low-lying, boggy sites. Typically, the species is found adjacent to dry, upland stands of jack pine and trembling aspen” (Turcotte 1997:70).*

Seneca root is a ubiquitous plant found throughout the Interlake. Ancient and recent traditional camps may have been established in some of the interior pockets such as the limestone “Big Ridge” and other outcrops, and may contain important cultural and heritage information regarding former land use patterns.

The vulnerable Ram’s Head Lady’s Slipper (*Cypripedium arietinum* R. Br), a member of the Orchidaceae family, is known to grow within the study area. Roots of various orchids are known to have been used in “...North America both by indigenous and immigrant peoples for their sedative and antispasmodic properties and to counter insomnia and nervous tension. ...” (Wilson 2007). Densmore (1928) also noted that the Anishinaabeg of the Rainy River area used *Cypripedium* spp. roots both as an infusion and mixed with food depending on the nature of the illness. Hutchens (1991) also noted the medicinal properties of *Cypripedium* spp. in combination with other plants. The Ram’s Head Lady’s Slipper may have been used locally for these medicinal purposes.

Cranberries were noted by Hind to occur at the mouth of the Big Buffalo Creek. Other inland areas with similar properties may exist in the area around portions of the existing forestry road and the winter access roads. Cranberries were an important emergency winter food; but the twig tips were also chewed to treat sore throat, cold sores and teething. The tea is also used as a blood purifier, to reduce urinary tract infections and a variety of female ailments (Marles *et al.* 2000).

Conversations with First Nations people who harvest plants and berries in this area may not result in traditional knowledge about the use of plants. General usage may be shared, but traditional practitioners will usually not discuss measurements of medicinal concoctions.

Animal resources throughout this area may result in incidental finds of projectile points. However, the location of these heritage resources is very difficult to predict given the opportunistic nature of hunting. Abandoned traps and satellite camps may be present.

Fishing appears to have been mainly associated with the large lakes and main rivers; however, if inland spawning areas were known there is a potential for stone weirs to be present.

The condition of the roads, in particular the forestry and winter roads, appeared to be poor, and course mainly through a series of wetland areas. With the exception of the ridge areas described above, the LSMOC and ASR study area was considered to be of low potential for archaeological sites.

## 5.2 Field Survey Results

The 2016 field surveys focused on areas identified within the RSA and LSA that could contain potential heritage resources, i.e., the ridge areas, areas near Buffalo Creek, and shoreline areas of rivers and lakes. Due to the prevalence of bog and fen habitat and lack of truck or ATV access in many parts of the LSMOC and ASR study area, a helicopter was used to access potential sites of interest.

With the exception of the ridge areas described, the study area was considered to be of low potential for archaeological sites. The existing LSMOC, access road and winter roads are surrounded by low and swampy lands, which do not rate as having high or medium potential for archaeological sites.

Ground and aerial surveys conducted in the proposed LSMOC and ASR LSA during the summer of 2016 did not reveal any further archaeological evidence or heritage resources in the area, with the exception of one site on Lake Winnipeg northeast of the proposed Reach 3 Willow Point outlet. Here, several secondary grey chert flakes and preforms were recovered<sup>3</sup>.

Sites related to seasonal harvesting were expected to be identified in and around the municipal road near the former Spearhill quarry since this was noted by Warms (2001) as a Seneca root gathering place of the local First Nations; however, as noted above, there were no archaeological sites found during the summer 2016 field studies.

The presence of recently constructed bear platforms and hunting cabins in the vicinity of the forestry road indicated ongoing resource harvesting by local residents.

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<sup>3</sup> Chert is a common rock type that occurs most often in carbonate rocks as nodules or layers (Sand Atlas 2017); it was used by ancient peoples for the manufacture of tools where flint, which is of higher quality than chert, was not available (Archaeology Wordsmith 2017). A preform is a bifacially flaked piece of stone that refers to various flint (or chert) objects that may be unfinished tools or discarded unsuccessful attempts at creating a tool; they are a common artifact and may be plentiful at lithic workshops or locations where flint knapping was done (Oklahoma Archaeological Survey 2017).



## 6.0 Summary and Conclusions

A baseline overview of the culture history of the study area was undertaken to provide the background heritage resources information for the Project in preparation for a HRIA. Attention was given to heritage resources protected under *The Manitoba Heritage Resources Act* (Government of Manitoba 1986) as well as human remains, which are further protected by Manitoba's Policy Concerning the Reporting, Exhumation and Reburial of Found Human Remains (Government of Manitoba 1987). The Policy refers to burials and found human remains that occur outside of registered cemeteries.

Existing data for the region were reviewed prior to field studies to gain an understanding of the area and provide information to focus the field studies on sites and/or areas in need of investigation. Three main sources of information were reviewed: the archaeological and historical records and, where possible, accessible sources of Aboriginal Traditional Knowledge (ATK).

The Provincial Archaeological Site Inventory for the RSA noted six registered archaeological sites. Four of the sites were identified as historic period and included fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago), based on the stone tools and Native ceramics. Five of the sites are located within or adjacent to the Pinaymootang FN lands, with four of these sites located in the LMOC Route C LSA. The sixth site is located within the Dauphin River FN lands outside of the LSMOC and ASR LSA. A review of the Provincial designated sites and commemorative plaques indicated that there were no Provincial commemorations within the RSA. However, a private plaque was noted to have been erected commemorating Spear Hill at some time in the past. The location of the plaque requires verification since it is noted by the Heritage Resources Branch records to be on the southwest shore of LSM; however, Spear Hill is located some 30 km to the southeast of this area.

The general archaeological and historic records for the study area indicate human occupation over the past 8000-7000 years. Within the RSA and LSA, minimal archaeological field research has occurred only along a portion of the Fairford River, leaving the impression that the land was never used. However, the archaeological record to the immediate south in the Siglunes and The Narrows area confirms occupation by First People at least by 5000 years ago. Increased seasonal occupation is apparent by the presence of numerous Middle and Late Woodland Sites (ca. 2000-350 BP) found around the RSA. The Woodland traditions are considered to be the ancestors of today's Cree and Anishinaabeg (Ojibwa).

The history of the general study area, as recorded in archival and other documents reviewed, is concerned mainly with the chronology of facts such as European exploration, the historic First Nations and early European settlement, and is focused on the waterway between LM and Lake Winnipeg and the lands immediately adjacent. The record takes into account fur trade, historic First Nations and immigrant settlements and homesteads.

The available oral history is found in the thesis and dissertation of Ballard (nee Traverse) (Ballard 1999; 2012) for the Lake St. Martin First Nation, which suggests traditional use of areas within the RSA and LSA. Available TK indicated the use of plants such as cranberries, ram's head lady's slipper and Seneca root by local First Nations for medicinal purposes.

With the exception of the ridge areas described, the study area was considered to be of low potential for archaeological sites. The existing LSMOC, access road and winter roads are surrounded by low and

swampy lands, which do not rate as having high or medium potential for archaeological sites.

Ground and aerial surveys conducted in the proposed LSMOC and ASR LSA during the summer of 2016 did not reveal any further archaeological evidence or heritage resources in the area, with the exception of one site on Lake Winnipeg northeast of the proposed Reach 3 Willow Point outlet. Here, several secondary grey chert flakes and preforms were recovered<sup>3</sup>.

Sites related to seasonal harvesting were expected to be identified in and around the municipal road near the former Spearhill quarry since this was noted by Warms (2001) as a Seneca root gathering place of the local First Nations; however, as noted above, there were no archaeological sites found during the summer 2016 field studies. The presence of recently constructed bear platforms and hunting cabins in the vicinity of the forestry road indicated ongoing resource harvesting by local residents. ATK data to be collected and collated by MI for the EIA can be integrated with the existing information on Culture and Heritage Resources in the RSA and LSA and provide further context for the study and future EIA process.

Heritage resources are often buried beneath the ground surface. It is important to understand that there is potential for heritage resources to be discovered during construction activities. Therefore, a Heritage Resources Protection Plan should be prepared that will provide guidance to contractors and equipment operators should artifacts or human remains be unearthed. If heritage resources are found during construction, activity at that location must stop immediately and the project archaeologist contacted. If human remains are exposed during construction, activity at that location must stop immediately and the RCMP and Historic Resource Branch contacted immediately (Manitoba's Policy Concerning the Reporting, Exhumation and Reburial of Found Human Remains 1987), and the Project archaeologist will also be informed.

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