Boat Launch Feasibility Study

Grand Marais, Manitoba

WX18492 11 April 2019



Environment & Infrastructure Solutions 440 Dovercourt Drive, Winnipeg Manitoba, Canada R3Y 1N4 Phone: (204) 488-2997

www.woodplc.com

Boat Launch Feasibility Study Grand Marais, ManitobaWood Project Number - WX18492

Prepared for:	Rural Municipality of St. Clements 1043 Kittson Road, Box 2 Grp 35 RR1 East Selkirk, Manitoba R0E 0M0					
Contact:	Mr. Garry Marshall, E	conomic Development Officer				
Report Distribution:						
Rural Municipality of St. Clements:	1 Electronic copy					
Wood:	1 electronic copy					
Report Classification:	Confidential					
	Name	Name Job Title Signature				
Prepared by:	Wara Chiyoka	Environmental Scientist	Wara Chiyoka			
Reviewed by:	John Donetz	Associate Environmental Scientist	Signed on Behalf of			
Other Technical Contributors	Brad Kennedy	Environmental Scientist	Prof.Lof			

WX18492| April 2019 Page i of iv



Executive Summary

Wood Environment & Infrastructure Solutions (Wood) conducted a boat launch feasibility study (the Study) considering several potential boat launch locations on the east side of Lake Winnipeg, near Grand Marais, Manitoba, for the Rural Municipality of St. Clements. The Study was conducted to evaluate initially four, and later eight, potential boat launch locations and to indicate to the RM of St Clements which of the locations appeared most favourable for a boat launch considering user convenience, reduced neighbouring land use and environmental impacts, construction costs, and ongoing maintenance costs.

The Study was largely desktop-based. However, Wood completed two site visits during the summer of 2018 to groundtruth environmental conditions at the eight potential boat launch locations. Wood also supported the RM of St. Clements during a community consultation held in August 2018 in Grand Marais, through presenting preliminary findings of the Study to interested stakeholders and soliciting feedback and input from the stakeholders on the potential boat launch locations. A qualitative ranking of potential boat launch locations was done considering known and anticipated environmental constraints.

Of the locations inside the lagoon area, Location C was deemed most appropriate for a boat launch given its location at what appears to be a historical boat launch location that might still be in use as well as its proximity to private land whose owner was open to selling some of. Between the two lakeside locations, Location H was deemed more favourable due to its having relatively more space as well as its proximity to vacant commercial properties along Parkview Avenue some of which could be used for boat launch amenities. Class D estimate costs for the two locations (Location C and Location H) were developed and it is understood that the R.M. of St. Clements might consider these two locations in the subsequent design phase of the boat launch project.

WX18492| April 2019 Page ii of iv



Table of Contents

1.0	Introduction	1
1.1	Background	1
2.0	Study Methodology	1
2.1	Desktop Analysis	
2.2		
2.3		
2.4	Cost Estimate Development	2
3.0	Potential Boat Launch Locations	2
3.1	Land Use	3
3.2	Climate and Physiography	3
3.3	Geology, Soils and Terrain, and Vegetation	4
3.4	Rare and Protected Species	4
	4.1 Desktop Review	
3.4	4.2 Ground Truthing	10
3.5	Lake Winnipeg Water Levels	12
3.6	5	
3.7	Community Consultation Findings	12
4.0	Environmental Constraints Based Ranking of Potential Loc	ations
	••••••	14
4.1	Location(s) Proposed for Inclusion in the Design Phase	15
4.1	1.1 Location C	
4.	1.2 Location H	15
5.0	Class D Estimate Costs for Select Boat Launch Locations	16
5.1	Additional Environmental Permitting Cost Considerations	16
6.0	References	17
U.U	I/C C C IC3	

List of Figures

	Figure 1: Site Location Plan	
List of	[:] Tables	
	Table 3-1: Potential Boat Launch Locations	2
	Table 3-2: Listed Species Within the Grand Marais Regional Area	5

WX18492| April 2019 Page iv of iv



1.0 Introduction

Wood Environment & Infrastructure Solutions, a division of Wood Canada Ltd. (Wood) was retained by the Rural Municipality (RM) of St. Clements to conduct a boat launch feasibility study (the Study) considering several potential boat launch locations on the east side of Lake Winnipeg, near Grand Marais, Manitoba. The objective of the Study was to evaluate initially four potential boat launch locations per primary criteria provided by the RM of St Clements and indicate to the RM of St Clements which of the four locations would be most appropriate considering user convenience while minimizing the neighbouring and environmental impacts, construction costs and ongoing maintenance costs. However, over the course of the Study and based on preliminary findings, the number of potential boat locations increased to eight. It is our understanding that the findings of the Study will form the basis of subsequent design related stages for the boat launch project.

While the Study was largely desktop based, two site visits were completed during the summer of 2018 to groundtruth environmental conditions at the eight potential boat launch locations, specifically to measure water depth and assess each site for the presence of rare or protected wildlife species and the suitability of each location to provide suitable habitat for species that have been recorded as occurring in the area. Wood also supported the RM of St. Clements during a community consultation held on the 24th and 25th of August 2018 in Grand Marais, presenting preliminary findings of the Study to interested stakeholders and soliciting feedback and input from the stakeholders on the potential boat launch locations.

1.1 Background

Grand Marais is a community located approximately 80 km northeast of Winnipeg, within the RM of St. Clements, Manitoba (see Figure 1). The community is located immediately south of Grand Beach Provincial Park (the Provincial Park) on the east shore of Lake Winnipeg. The Provincial Park is known as a sanctuary for the piping plover, an endangered bird species that nests on the beach and provides a habitat to other wildlife species found in the regional area. The Park attracts thousands of visitors each year and is a popular tourist destination.

Grand Marais residents are concerned that their community is not realizing its full potential as a resort destination. To stimulate development, the Destination Grand Marais Committee (DGMC) identified key projects that could revitalize and encourage growth and community development in Grand Marais (Hilderman Thomas Frank Cram [HTFC] 2007). These key projects were in support of the overall goal to enhance tourism facilities, improve services and attract investment to the Grand Marais area, and included the construction of a marina with fishing facilities, dock, gas station and other related amenities (HTFC 2007). Considering the HTFC (2007) report, the current feasibility study appears to be in support of the previously identified marina project, although at a smaller scale.

2.0 Study Methodology

2.1 Desktop Analysis

A desktop review was completed to characterize the environmental conditions of the Grand Marais regional area as well as the individual potential boat launch locations' immediately surrounding areas. As part of the desktop study, Wood submitted requests for information on presence of rare and protected species within the Grand Marais area and specific to the individual potential boat launch locations from the Manitoba Conservation Data Centre (CDC).

WX18492 | April 2019 Page 1 of 20



2.2 Field Reconnaissance

Wood conducted two field reconnaissance site visits to characterize the existing environment at the potential boat launch locations:

- A wildlife and vegetation survey of six locations on 11 June 2018.
- A water depth measurement survey of six locations on 13 June 2018 No measurements collected as water levels were low particularly at the four locations within the lagoon.

Wood conducted one additional site visit in August 2018 following the RM of St. Clements' identification of two additional potential locations to be included in the feasibility study.

2.3 Criteria for Evaluation of Potential Boat Launch Locations

The RM of St. Clements developed the following criteria for use in evaluating the potential boat launch locations:

- Proximity to business district
- Road access
- Impact on neighbouring properties
- Parking (range of spaces for 15-25 vehicles with trailers)
- Water access (assume medium sized boats)
- Water depth
- Environmental impact (e.g., nesting plovers in sandspit area)
- Use restrictions and licensing
- Capital costs, and
- Annual/periodic maintenance costs (e.g., dredging).

2.4 Cost Estimate Development

Following a review of the environmental, adjacent land use, and community-consultation-feedback constraints associated with each of the eight locations, a qualitative ranking was completed to narrow down the potential locations to two locations that appeared to be relatively more favourable than the others. Class D estimate costs were developed and are presented for these two locations (see Section 5.0).

3.0 Potential Boat Launch Locations

Of the eight potential boat launch locations, four are within a lagoon formed by the sandspit which extends into the lake and provides shelter for the lagoon (Locations A to D), one location (Site E) is located south of Grand Marais near Sunset Beach, one location (Location F) is located on the northern portion of the sandspit, and two locations are located along Grand Marais Boulevard north of the sandspit and lagoon area (Locations G and H). The eight potential boat launch locations are outlined in Table 3-1 and shown on Figure 2. Photos showing the vicinity of each potential boat locations are shown in Appendix A.

Table 3-1: Potential Boat Launch Locations

Location ID	Location Description	Legal Land Location	UTM Coordinates (Zone 14 U)	
			Northing	Easting
А	Lagoon, east of sandspit	SW18-18-7E1	5601402	668136

WX18492 | April 2019 Page 2 of 20



1	Landa Baratata	1	UTM Coordinates (Zone 14 U)		
Location ID	Location Description	Legal Land Location	Northing	Easting	
В	Lagoon	SW18-18-7E1	5601373	668314	
С	Lagoon	SE18-18-7 E1	5601221	668982	
D	Lagoon	SE18-18-7 E1	5601146	669120	
Е	Sunset Beach, south of Grand Marais	NW5-18-7 E1	5598990	669751	
F	North of sandspit at Grand Marais Boulevard/ Thorncliffe	NW18-18-7 E1	5601774	668035	
G	Sandspit	SW18-18-7E1	5601345	668074	
Н	South of Grand Beach Provincial Park boundary at Grand Marais Boulevard/Parkview	SE24-18-6 E1	5602860	667326	

3.1 Land Use

The land use zoning for the potential boat launch locations includes Crown Land, RM of St. Clements owned land, and private lands. According to the RM of St. Clements' land use map (RM of St. Clements 2017):

- Locations A, B, and G are on land zoned parks and recreation [PR] and are both appreciably distanced from the neighbouring land uses (suburban residential [RA] to the east and seasonal residential [SR] to the north).
- Locations C and D are on land zoned commercial recreation (CR). Both locations are close to RA-zoned land to the north and northwest, respectively, as well as SR-zoned land, particularly Location C, and some of the landowners in these neighbouring land uses might not be in favour of the development of a boat launch and supporting infrastructure for public use might at these locations.
- Location E is located on PR-zoned land and is near SR-zoned land in Sunset Beach.
- Locations F and G are on SR-zoned land. Given the restricted physical space at these locations, especially at Location F, there is potential for conflict with cottage owners whose cottages are close to these locations along Grand Marais Boulevard.

3.2 Climate and Physiography

The Grand Marais area falls under the Stead Ecodistrict of the Lake of the Woods Ecoregion in the Boreal Shield Ecozone (Smith et al. 1998). Climate in the ecodistrict is characterized by short, warm summers and long, cold winters, with a reported mean annual temperature of 1.9°C and mean annual precipitation of 530 mm (Smith et al. 1998).

The Stead Ecodistrict is situated entirely within the borders of ancient glacial Lake Agassiz basin with elevations that range from about 290 to 221 metres above sea level (masl) (Smith et al. 1998). The area's physiography varies from a level to depressional glaciolacustrine plain largely influenced by peatlands, to a smooth, level to gently undulating water-worked glacial till and fluvioglacial outwash plain, to irregular hummocky morainal uplands near Lake Winnipeg in the northern section (Smith et al. 2018). Moderately

WX18492 | April 2019 Page 3 of 20



sloping to very strongly sloping gradients >9% occur along a series of sandy and gravelly ridges and uplands near Lake Winnipeg (Smith et al. 1998), as was observed for Locations G and H which are along Grand Marais Boulevard, north of the sandspit.

3.3 Geology, Soils and Terrain, and Vegetation

According to Matile et al. (2004), the surficial geology in the area around Grand Marais which includes the eight potential boat launch locations is described as:

- Organic deposits consisting of peat, muck; <1-5 m thick; very low relief wetland deposits;
 accumulated in fen, bog, swamp, and marsh settings in the vicinity of Locations A, B, C, and D.
- Marginal glaciolacustrine sediments consisting of sand and gravel; 1–20 m thick; beach ridges, spits, bars, littoral sand and gravel; formed by waves at the margin of glacial Lake Agassiz in the vicinity of Locations E, F, G and H.

According to Smith et al. (1967), the following soils are reported to occur in the Grand Marais area:

- Very poorly-drained Carbonated Rego Gleysols which occur in a depressional to level topography, are stone free to slightly stony, and belong to a silty clay Marsh Complex are the reported soils within the lagoon area near Locations A and B. The vegetation associated with these soils consists of rushes, reeds and sedges which are consistent with findings from the on-site surveys at these locations conducted as part of the Study (see Photos in Appendix A).
- Regosols (sand) from recent sandy beach deposits which range from stone-free to bouldery and
 associated with some aspen or willow, but usually no vegetation, are found in the vicinity of
 Locations F, G and H. Drainage of these soils varies with lake levels. Topography is reported as gently
 sloping to the lake.
- Orthic Grey Wooded, calcareous, stratified sand and gravel soils of the Woodridge series which are
 excessively drained, associated with jack pine and some aspen, on very gently to moderately sloping
 topography, and range from stone-free to slightly stony are found near Locations C and D.

3.4 Rare and Protected Species

3.4.1 Desktop Review

A variety of sources were reviewed to identify species at risk that could potentially occur within the Grand Marais region, including the Manitoba Conservation Data Centre (CDC) the Bird Studies Canada (BSC) Manitoba Breeding Bird Atlas (BBA), and the Manitoba Herpetological Atlas (MHA). The occurrence data from these sources were compared to the *Federal Species at Risk Act* (SARA) SC 2002, C29 and The Endangered Species and Ecosystems Act (Manitoba), CCSM c E111 to determine which federally and/or provincially listed rare or sensitive species have the potential to occur in the regional area of the eight boat launch locations that are being considered as part of the Study. Distribution maps were referenced, and habitat requirements were considered to determine the likelihood of the listed species to occur in the project region. Based on this search, there are 25 listed species that may occur in the regional area of the Project (see Table 3-2).

WX18492 | April 2019 Page 4 of 20



Table 3-2: Listed Species Within the Grand Marais Regional Area

Species	SARA Status	MESA Status	Habitat Description	Potential to Occur in the Project Region
Vascular Plants				
Great Plains Ladies'- tresses Spiranthes magnicamporum	Special Concern	Not Listed	Calcareous Prairies or wet meadows. [1)	Low : Manitoba's only known populations occur in the Gardenton area in south-eastern Manitoba, near the USA border. [1)
Western Silvery Aster Symphyotrichum sericeum	Threatened	Threatened	Dry prairies with sandy, gravelly, calcareous soils	Low: the nearest known populations occur around Beausejour and Bird's Hill Provincial Park.
Lichens				
Flooded Jellyskin Lichen Leptogium rivulare	Threatened	Not Listed	Humid calcareous habitat subject to seasonal flooding. Occurs most commonly on Ash trees, but also on Maple, Elm and Willow.	Moderate Occurrences are scattered throughout the post glacial Lake Aggasiz basin ^[3] .
Vertebrates				
Western Grebe Aechmophorus occidentalis	Special Concern	Not Listed	Marshes and Lakes with stands of emergent vegetation, stable water levels, areas of open water and populations of prey fish. (3)	Moderate : Has been identified within the project region, although breeding evidence has not been observed in the area ⁽⁴⁾ .
Eastern Tiger Salamander Ambystoma tigrinum	Endangered	Not Listed	Sandy soils around soft- bottomed water bodies without fish. [3]	Low: Has not been observed in the project area. ^{[5}]
Baird's Sparrow Ammodramus bairdii	Special Concern	Endangered	Mixed grass prairies, lightly grazed pastures, hayfields ⁽⁶⁾ .	Low : Extremely rare in Manitoba, except in the extreme southwest corner of the province ⁽⁶⁾ .
Whip-poor will Antrostomus vociferus	Threatened	Threatened	Semi-open, or patchy mixed coniferous-	Moderate : has been identified within the Project Region, although

WX18492 | April 2019 Page 5 of 20



Species	SARA Status	MESA Status	Habitat Description	Potential to Occur in the Project Region
			deciduous forests with clearings. ^[3]	not known to breed in the area. ^[4]
Short-eared owl Asio flammeus	Special Concern	Threatened	Open habitats – grasslands, marshes, old pastures. ^[3]	Moderate: has been identified within the Project Region, although not known to breed in the area. [2]
Canada Warbler Cardellina canadensis	Threatened	Threatened	Mixed coniferous- deciduous forests with well- developed shrub layer. ^[3]	Moderate: has been identified within the Project Region, although not known to breed in the area. [4]
Chimney Swift Chaetura pelagica	Threatened	Threatened	Historically it nested in hollowed trees, however, now it is most commonly associated with populated areas with chimneys. Feeds near bodies of water [3].	Low: rarely observed within the project region and not know to breed in the area. ^[4]
Common Nighthawk Chordeiles minor	Threatened	Threatened	Open areas free of vegetation, and mixed coniferous- deciduous forests. [3]	Moderate : has been identified within the Project Region, although not known to breed in the area. ^[4]
Piping Plover Charadrius melodus	Endangered	Endangered	Lakeshores and river sandbars ^{[7}].	High : Nests on broad beaches on lake Winnipeg ^[7] . Breeding evidence within project region ^[4] .
Common Snapping Turtle Chelydra serpentine serpentina	Special Concern	Not Listed	Slow-moving water with a soft mud bottom and dense aquatic vegetation. [3]	High: has been identified within the Project Region, in marsh in the Grand Marais area less than one km from the Sites. ^[5]
Shortjaw Cisco Coregonus zenithicus	Threatened	Not Listed	Deeper waters of large lakes [3].	Low: not likely to occur in the shallow waters

WX18492 | April 2019 Page 6 of 20



Species	SARA Status	MESA Status	Habitat Description	Potential to Occur in the Project Region
				along the shoreline of Lake Winnipeg.
Olive-sided Flycatcher Contopus cooperi	Threatened	Threatened	Open areas containing tall trees for perching. [3]	Moderate: has been identified within the Project Region, although not known to breed in the area. [4]
Yellow Rail Coturnicops noveboracensis	Special Concern	Not Listed	Marshes and damp meadows with little or no standing water (generally 0-12 cm water depth), although the substrate remains saturated throughout the summer. [1]	Moderate : Project Region is within the breeding range. ^[3]
Bobolink Dolichonyx oryzivorus	Threatened	Not Listed	Native grasslands and pastures. ^[3]	Moderate: not know to breed in the area, but occurrences have been noted in the Project Region. [4]
Barn Swallow Hirundo rustica	Threatened	Not Listed	Nests in caves, holes, crevices in cliffs, barns, buildings, bridges, culverts. Forages in open habitats: clearings, wetlands, rights-of-way, agricultural fields. [3]	High: has been identified within the Project Region, confirmed evidence of breeding within the project region. [4]
Chestnut Lamprey Ichthyomyzon castaneus	Special Concern	Not Listed	Moderate sized rivers and large creeks ^{[3].}	Low: Found in Manitoba Rivers ^{[3].}
Northern Brook Lamprey Ichthyomyzon fossor	Special Concern	Not Listed	Streams and small rivers.	Low : Found in the Nelson River drainage basin in Manitoba ^[3] .
Least Bittern Ixobrychus exilis	Threatened	Endangered	Marshes with dense stands of vegetation near open water. ^[3]	Low: the Project Region is within the breeding range. However, observations have not

WX18492 | April 2019 Page 7 of 20



Species	SARA Status	MESA Status	Habitat Description	Potential to Occur in the Project Region
				been noted within the Project Region ^{[4].}
Northern Leopard Frog Lithobates pipiens	Threatened	Not Listed	Overwinter in cold waterbodies that do not freeze solid. Breed in pools ponds, marshes and lakes. Moist upland meadows and prairies are used in the summer.	High: occurrences noted in the Project Region on the MHA, in the Grand Beach, Grand Marais area. ^[5]
Carmine Shiner Notropis percobromus	Threatened	Not Listed	Fast flowing larger streams and small rivers with clean gravel bottoms ^{[3].}	Low : Known to occur in the Whitemouth-Birch River systems and may occur in the Red River. [3]
Bank Swallow Riparia riparia	Threatened	Not Listed	Nests in river banks, cliffs or bluffs, aggregate pits and, soil stockpiles.	Moderate : not know to breed in the area, but occurrences have been noted in the Project Region. ^[4]
Golden-winged Warbler Vermivora chrysoptera	Threatened	Threatened	Regeneration sites with low shrubs but surrounded by mature forest. [1]	Low : Occurs mostly in southern Manitoba. The nearest breeding evidence is in the Swan River area.

Sources:

- [1] Manitoba Species at Risk Fact Sheet: Great Plain's Ladies'-tresses *Spiranthes magnicamporum* (Manitoba Sustainable Development 2018).
- [2] Manitoba Species at Risk Fact Sheet: Western Silvery Aster *Symphyotrichum sericeum* (Manitoba Sustainable Development 2018).
- [3] Species at Risk Public Registry (Government of Canada 2018).
- [4] Artuso et al. 2010 -2014.
- [5] Manitoba Herps Atlas Database 2018.
- [6] Manitoba Species At Risk Fact Sheet: Baird's Sparrow Ammodramus bairdii (Manitoba Sustainable Development 2018).
- [7] Manitoba Species at Risk Fact Sheet: Piping Plover Charadrius melodus (Manitoba Sustainable Development 2018).

Of the 25 protected species listed in Table 3-2, four are considered to have a high potential to occur in the Grand Marais region, based on occurrence data and habitat considerations. These four species are: Piping Plover (Charadrius melodus), Common Snapping Turtle (Chelydra serpentine serpentine), Barn swallow (Hirundo rustica), and Northern Leopard Frog (Lithobates pipiens). A search of the MB CDC database returned incidences of each of these four species in the local project area, with some

WX18492 | April 2019 Page 8 of 20



occurrences in proximity to some of the potential boat launch locations.

3.4.1.1 Piping Plovers

Piping Plovers are listed as Endangered both federally and provincially and are known to nest along broad sparsely vegetated beaches along the shores of Lake Winnipeg, such as Grand Beach (MSD 2018). They are known to nest in the Breeding Bird Atlas' 10 km by 10 km square which encompasses the potential boat launch locations (Artuso et al. 2014). However, this square also encompasses Grand Beach Provincial Park, which has historically been a nesting Site for Piping Plovers. Of the eight potential boat launch locations, Locations F, G, and H are the most likely to impact the Piping Plover, as the MB CDC has recorded occurrences of this species with 100 m of each of these locations. The Piping Plover's nesting season occurs between May and June, and Piping Plovers begin to migrate south in early August (MSD 2018). If either of Locations F, G, or H was selected for the boat launch, the completion of a nest survey by a biologist, prior to construction activities would be recommended as well as the establishment of appropriate buffer zones if nesting sites were discovered.

3.4.1.2 Common Snapping Turtles

Common Snapping turtles are listed federally as a species of Special Concern. They occur in slow moving waters, including ponds and shallow bays of lakes (Government of Canada 2018). The presence of Common Snapping Turtles has been recorded relatively close to the study area (approximately 600 metres from Location D and approximately 750 metres from Location C) (MHA 2018). The bay upon which potential locations A-D are situated, could provide suitable habitat. Common snapping turtles nest in late May and June (Government of Canada 2018). Wood recommends that a biologist conduct a survey of the potential boat launch locations for nests prior to construction, and should any be discovered, an appropriate buffer zone should be established around the nests.

3.4.1.3 Barn Swallows

Barn swallows are listed as Threatened federally and are known to nest within the project region. Barn swallows can nest in caves and cliffs, but also man-made structures such as culverts, buildings, and bridges (Government of Canada 2018). The MB CDC has recorded occurrences of Barn swallows in the local area, and in proximity to potential locations F, G, and H. Barn swallows breed in Manitoba from May to September (Artuso et al. 2014). As each of the eight potential boat launch locations has the potential to be in proximity to appropriate Barn Swallow nesting habitat, Wood recommends that each of the potential boat launch locations be surveyed for potential nests by a biologist prior to construction activities. If nests are located, buffer zones should be established prior to construction activities. Alternatively, construction could be schedules outside of nesting season.

3.4.1.4 Northern Leopard Frogs

Northern Leopard Frogs are listed as Threatened federally and are known to occur in the project region (MHA 2018, MB CDC 2018). Northern Leopard Frogs can be found in a variety of habitats, including wetlands, moist meadows, and riparian areas. Wood recommends that a survey be conducted by a biologist in each of the potential boat launch Sites, prior to construction, to determine the presence or absence of Northern Leopard frogs and/or suitable habitat for this species. Based upon these field observations, the Locations least likely to impact Northern Leopard Frog habitat would be determined, and recommendations will be made.

WX18492 | April 2019 Page 9 of 20



3.4.2 Ground Truthing

On 31 May 2018, Wood's field biologist visited the four originally proposed locations (A-D) as well as two additional locations (E and F). Locations G and H (i.e., northern portion of sandspit and corner of Parkview Avenue/Grand Marais Boulevard) were added later, and thus were not included as part of the ground truthing surveys. Each of the six sites was assessed for its suitability as a potential boat launch location based on the presence of protected species, and the presence of suitable habitat that might support protected or rare species. An inventory of the plant and animal species observed at each location was also recorded. Figure 2 shows the potential boat launch locations.

3.4.2.1 Location A (east of sandpit, within lagoon)

Location A is situated immediately east of the sand spit that separates the bulk of Lake Winnipeg from the lagoon. The sand spit contains riparian trees and shrubs, and shoreline habitat along both the lake and the bay, which support various shorebirds and songbirds. Although the endangered Piping Plover was not observed at the Site, the sand spit does provide suitable habitat for this species, and there is a potential that Piping Plovers could feed or nest in the area. To the east of the sand spit is a marsh, dominated by cattails. Barn swallows, listed as a Threatened species federally, were observed in the area, exhibiting mating behaviours, although a nest was not located. The marsh also provides potential habitat for northern leopard frogs, which are listed federally as Threatened.

Of environmental concern regarding Location A is that to connect the existing road to the boat launch at low water levels observed during the site visit, a large portion of the marsh would need to be filled in for both vehicle access and parking. This would negatively impact potential barn swallow and northern leopard frog habitat. Additionally, creating an access for vehicles would disturb potential Piping Plover habitat along the sand spit.

As the habitats identified at and near this location have the potential to support protected species, and the construction and operation of a boat launch at this Site would degrade these habitats, Location A is not deemed appropriate for the boat launch.

3.4.2.2 Location B (within lagoon)

To access the water at this location there is a parcel of forested crown land and marsh that would have to be traversed. The riparian forest is dominated by black ash (considered as S3, or vulnerable, provincially), green ash, bur oak, and Manitoba maple trees, with highbush cranberry and red-osier dogwood dominating the shrub layer. Although no protected species were observed at this location, the forest does provide nesting habitat for songbirds. The marsh between the forest and the open water of the bay also provides potential habitat for the Threatened northern leopard frog, and Common Snapping Turtle, listed federally as a species of Special Concern.

Considering that construction of a boat launch at this location would result in the loss of forest and marsh habitat, Location B is not considered appropriate for the boat launch.

3.4.2.3 Location C (within lagoon)

Location C is at the site of what appears to be a historical boat launch that might still be in use. There is existing gravel road access to the water off Snowdon Bay. A trembling aspen and balsam poplar forest was observed immediately south and west of the access gravel road; however, the area north of the gravel road is a vacant lot seeded with Kentucky blue grass. At the water's edge, a marsh was observed west of

WX18492 | April 2019 Page 10 of 20



the boat launch area, however, it has already been disturbed by the existing boat launch.

A constructed bird house that was being used as a nesting structure by both Brewer's blackbirds and Barn Swallows was observed approximately 50 m north of Location C. Barn Swallow are considered a Threatened species federally. If the birdhouse could be re-situated, and/or construction of the boat launch could take place outside of nesting season, this would be a suitable location for a boat launch, considering it would require only the enhancement of existing infrastructure and little disturbance to habitat.

3.4.2.4 Location D (within lagoon)

It appears that the most direct access to Location D would require the widening of a stretch of the trans-Canada trail. Adjacent to the existing trail is marsh habitat, dominated by cattails and willow species, with some green ash, balsam poplar and Manitoba Maple trees. Considering that the existing road could be expanded without resulting in the loss of much protected species habitat, this is considered an acceptable option for the boat launch.

3.4.2.5 Location E (Sunset Beach)

Location E is located directly north of the public access point to Sunset Beach off Provincial Road 500. Both Northern Leopard Frogs, listed as Special Concern by SARA, and Piping Plovers, which are listed as endangered provincially and federally, have been reported in the general area of the site. There is a marsh area to the north of Location E which is dominated by cattails and willow species, which could support Northern Leopard Frogs. There is a beach immediately south of Location E, which could provide Piping Plover habitat, although there have not been occurrences of Piping Plovers recorded in the MB CDC database within 100 m of the Site.

Considering that the area already has cottage development, and is close to a public beach, construction of a boat launch would not appreciably increase the amount of additional disturbance or traffic. Construction a boat launch at this location would be acceptable as there would be little disturbance to natural habitats. If construction is scheduled during nesting season, a nest survey is recommended prior to commencement of construction activities.

3.4.2.6 Location F (near Grand Marais Blvd/Thorncliffe Ave)

Location F is located on a greenspace immediately west of Grand Marais Boulevard near the intersection with Thorncliffe Avenue and is separated by a steep slope from the lake. The beach area below Location F could provide nesting habitat for the Piping Plover, which is listed as endangered both provincially and federally as occurrences of Piping Plovers have been reported within 100 m of this Site. No nests were observed at the time of the site visit; however, the habitat is considered suitable. If construction were to occur at this location during the nesting season, the area would need to be surveyed again for nests prior to the commencement of any construction activity.

3.4.2.7 Inferences for Locations G and H

While site visits were not conducted for Locations G (northwest portion of sandspit, southwest of Location A) and H (near intersection of Grand Marais Boulevard and Parkview Ave), the environmental conditions at nearby surveyed sites (i.e., Locations A and F, respectively) can be adapted for these additional locations.

Based on the interpretation of desktop and site visit findings for Location A, the sandspit where Location G is, contains riparian trees and shrubs, and shoreline habitat along both the lake and lagoon, which

WX18492 | April 2019 Page 11 of 20



support various shorebirds and songbirds, particularly the endangered Piping Plover. While the Piping Plover was not observed at Location A, the sandspit does provide suitable habitat for this species, and there is a potential that Piping Plovers could feed or nest in the area. Like Location A, Location G is not deemed appropriate for the boat launch because of its potential to support protected species.

Based on the interpretation of desktop and site visit findings for Location F, the beach area below Location H could provide nesting habitat for the Piping Plover, which is listed as endangered both provincially and federally. Similar to Location F, construction-related mitigation to reduce effects at Location H could include the completion of a nest sweep prior to commencement of any boat launch construction activity.

3.5 Lake Winnipeg Water Levels

Wood conducted a site visit to measure lake water levels at the then six potential boat locations (Locations A to F) on 11 June 2018. Water level measurements were not collected as water levels were found to be very low with the water appreciably receded leaving an expanse of sticky and muddy shoreline which is typically under water. Qualitatively, the locations along Grand Marais Boulevard (i.e., Locations F and H) had higher water levels than the locations within the lagoon (Locations A to D) and Location E near Sunset Beach. Photos taken during the site visit are shown in Appendix A.

3.6 Heritage Resources

Wood submitted a screening request to Manitoba Historic Resources Branch (the Branch) on 26 September 2018 for the eight potential boat launch locations, to determine if there are any potential heritage resources that may be affected by the construction and operation of a boat launch and if a Heritage Resources Impact Assessment (HRIA) is required for any of the locations.

A formal response with respect to the above-mentioned screening request from the Branch was received on 16 October 2018 and indicated that the Branch has concerns regarding the eight potential boat launch locations (see Appendix B). The Branch indicated that the eight locations are located along the southeastern shoreline of Lake Winnipeg, an ancient waterbody and waterway known to be well travelled historically and visited by Past Peoples, and that there are archaeological sites, a historic trail and trade post within the region. As a result, the Branch associates the eight locations with a high potential for presence of heritage resources.

Under Section 12(2) of *The Heritage Resources Act*, if the Minister of Sport, Culture and Heritage has reason to believe that heritage resources or human remains are known, or thought likely to be present, on lands that are to be developed, then the owner/developer is required to conduct at his/her own expense, a heritage resource impact assessment (HRIA) and mitigation, if necessary, prior to the project's start.

Based on the above, the completion of a HRIA by a qualified archaeological consultant will be required prior to the development of any of the eight locations for a boat launch.

3.7 Community Consultation Findings

Wood participated in a community consultation conducted on 24 and 25 August 2018 in the community of Grand Marais at the Grand Marais Community Central (GMCC) Building located on Highway 12, near the west gate to Grand Beach Provincial Park. Wood's role was to provide preliminary information to interested stakeholders and to solicit feedback on the information presented, particularly comments on the potential boat launch locations. To encourage participation, the community consultation was a drop-

WX18492 | April 2019 Page 12 of 20



in event over two days and was scheduled to coincide with the weekly farmer's market which was also hosted at the GMCC Building.

Between the two days, at least 60 interested stakeholders (an appreciable proportion of whom reside in the community of Grand Marais) stopped by the Wood table asking questions about the status of the boat launch project and providing feedback regarding the boat launch potential locations. Following the community consultation, feedback was received via email form other interested stakeholders. Common concerns or feedback themes on the potential boat locations that were drawn are:

- While relatively close to the community core area, low water levels in the lagoon area, particularly near Locations A and B, were deemed to make these locations unfavourable, especially considering the potential for high dredging costs during construction and maintenance.
- Potential for compromised structural integrity of the dike which protects low lying properties that are located north of Locations A and B from serious flood damage, should boat launch-related construction be conducted near the dike.
- Concerns for environmental degradation and effects to wildlife and wildlife habitat within the lagoon, particularly near Locations A and B. Piping plovers and the common snapping turtle were some of the wildlife reported to occur near the lagoon and sandspit while an island near Location E was said to be a pelican habitat.
- Concerns for noise due to proximity of boat launch to nearby properties, especially for properties immediately north of the lagoon.
- Between Locations C and D, the consensus was that Location C was preferred given that the area has been previously used for boat launching and that the adjacent land owner was open to selling a portion of his land to the RM of St. Clements in support of the boat launch development. However, participants who identified as having cottages located near Location C had concerns regarding the noise that could be associated with the boat launch and suggested that the establishment of bylaws and other mitigation pertaining to the boat launch would be needed.
- Given the underlying need to boost tourism in the community of Grand Marais, most participants did not consider Location E (near Sunset Beach) to be a suitable boat launch location given its being the furthest from the Grand Marais core area.
- Location G on the sandspit was considered suitable by some participants who indicated that the location was near a former fisherman's wharf.
- Locations F and H along Grand Marais Boulevard were largely deemed unfavourable due to inadequate physical space for boat launch and related amenities as well potential for noise to and obscured lake front view for the nearby cottages.
- Locations F and H along Grand Marais Boulevard are not sheltered and vulnerable to wind and snow damage. Terrain at these locations was also considered unfavourable given the steep slopes connecting the land along Grand Marais Boulevard and the lake, and boat launch construction costs for these locations were perceived to be higher than the other locations.
- Between locations F and H, there appeared to be preference for Location H which is located near the corner of Parkview Avenue and Grand Marais Boulevard and adjacent to a green space on the southwestern boundary of Grand Beach Provincial Park. This location is also close to commercial properties along Parkview Avenue such as Potenza's Restaurant and Bar and the Manitoba Metis Federation Inc Southeast Region office, a former bakery as well other commercial lots that could be used for boat launch amenities such as washrooms and parking given the limited physical space near the location. Some participants indicated that the placement of a boat launch at Location H could be

WX18492 | April 2019 Page 13 of 20



- give a boost to the commercial properties along Parkview Avenue.
- Several participants indicated concerns regarding the source of funding for the boat launch project
 with some suggesting that the marina at Balsam Bay which is located about 7 km south of Grand
 Marais is close enough for the residents of Grand Marais, removing the need for a boat launch in
 Grand Marais.

Outside of the eight locations presented during the community consultation, several participants suggested the revitalization of the existing boat launch in Grand Beach Provincial Park and possibly expanding it to become a marina, instead of pursuing a new boat launch for the Grand Marais area. These participants indicated that revitalization of an existing facility was favourable from an environmental and economic standpoint. However, given that Grand Beach Provincial Park is outside the RM of St. Clements' jurisdiction and owned by the province of Manitoba, the participants acknowledged this as a challenge and suggested conducting a town hall to explore this suggestion with federal and provincial representatives as well as the communities of Grand Marais and Grand Beach. Since Grand Beach Provincial Park is outside of the RM of St. Clements' jurisdiction, the revitalization of the Grand Beach Provincial Park boat launch is not evaluated as part of this feasibility study as the RM of St. Clements commissioned this Study as part of its goal to enhance tourism facilities, improve services and attract investment to the community of Grand Marais.

4.0 Environmental Constraints Based Ranking of Potential Locations

A qualitative ranking of potential boat launch locations was conducted considering known and anticipated environmental constraints some of which will also have implications for cost and engineering aspects of the boat launch. Based on the high potential for presence of heritage resources at eight potential boat launch locations (see Section 3.6 and Appendix B), the completion of a HRIA will be required for all of the eight locations.

- Locations A and B are deemed unsuitable due for a boat launch location to potential for impact to the marsh which is likely to provide habitat for protected species, namely, barn swallow and northern leopard frog habitat. Given the receded and low water levels at these locations, dredging of the marsh would likely be needed to ensure deep enough and navigable water levels within the lagoon. Such dredging would impact aquatic habitat and species and would also be a recurring (and possibly unsustainable) cost over the lifetime of the boat launch.
- Locations A and G are deemed unsuitable for a boat launch location due their proximity to or
 location on the sandspit which provides Piping Plover habitat. Given the absence of an existing
 access road in this area, clearance for an access road would further negate the impacts to habitat and
 increase potential for conflict with nearby cottage and home owners.
- Location C and D seem more appropriate for a boat launch than the other lagoon locations. Between the two, Location C is preferred given its location at what appears to be a historical boat launch location that might still be in use. The adjacent private land might have to be purchased by the RM of St. Clements to increase the physical space for the boat launch and parking given the existing limited space and to reduce the potential for impacts to the marsh west of Location C. Buy-in and support from adjacent land owners would also be needed, and the constructed bird house that was observed to be used as a nesting structure by Brewer's blackbirds and Barn Swallows about 50 m north of Location C would have to be relocated.
- Location E would be acceptable for a boat launch given its relatively lower environmental constraints than Locations A, B, and G, and proximity to good access road and its being public access beach.

WX18492 | April 2019 Page 14 of 20



- However, given the objective of wanting to boost tourism near the central area of Grand Marais, by being furthest from the central community area, Location E does not seem appropriate. Also, Location E might be exposed and vulnerable to wind and ice/snow damage.
- Locations F and H which are located on the greenspace along Grand Marais Boulevard have more favourable water levels than locations inside the lagoon. However, being on the lakeside, these locations are not naturally sheltered, and infrastructure placed there could be susceptible to wind and snow/ice damage. The steep terrain connecting Location H and the lake appears to be actively eroding and the construction of a boat launch at this location might incur relatively higher costs than the other locations. While the physical space at both locations is limited for the boat launch and associated needed parking area, Location H has more space than Location F, and Location H is also closer to vacant commercial properties along Parkview Avenue some of which could be used for boat launch amenities.

4.1 Location(s) Proposed for Inclusion in the Design Phase

Based on the evaluation of the eight potential boat launch locations, we propose the consideration of two locations, Location C and Location H, for the subsequent design phase of the boat launch due to the locations' attributes as outlined below.

4.1.1 Location C

Location C is deemed suitable for consideration in the design phase of the boat launch project because of the location's favourable attributes which include:

- Existing access and historical use of this site as a boat launch.
- Soil and surficial geology materials that seem suitable for supporting a boat launch.
- Availability of adjacent private-owned land that could be purchased to increase the existing space to accommodate the boat launch. Landowner of adjacent land is in support of the development and willing to sell land needed for boat launch use.
- Relatively central location within the community of Grand Marais.
- While there is potential for environmental effects (e.g., disturbance of common snapping turtle and barn swallow habitat) these effects can be mitigated through timing of construction activities and conducting a nest sweep and wildlife survey at the Site prior to commencement of construction

While more relatively favourable than the other boat launch locations, there are challenges associated with the development of a boat launch at Location C. As with the other lagoon locations, water depth might be low in some years or early in the boating season. This challenge could be addressed through dredging or boat launch design. Given that the boat launch will be a new development, dredging at this or any of the other locations would have to be preceded by a self-assessment and submission of a request for review to the federal Department of Fisheries and Oceans (DFO). The location is close to privately owned land with cottages that up to now have enjoyed lake front views and the pursuit of a boat launch development at this location could generate opposition from these nearby landowners. However, individual landowner engagement and planning for mitigation to reduce impacts of the boat launch's construction and operation on these nearby landowners could increase support for the project.

4.1.2 Location H

Location H is deemed suitable for consideration in the design phase of the boat launch project because of the location's favourable attributes including:

WX18492 | April 2019 Page 15 of 20



- Relatively deeper water levels.
- Existing access.
- Relatively central location within the Community of Grand Marais.
- Proximity to vacant commercial properties along Parkview Avenue some of which could be used for housing boat launch amenities, e.g., parking.

While having relatively more favourable water depth than the lagoon locations, there are challenges associated with the development of a boat launch at Location H. As with the other lakeside location (i.e., Location F), Location H is not naturally sheltered, and infrastructural development at this location could be susceptible to wind and snow/ice damage. Further, the steep terrain connecting Location H and the land adjacent to the lake could be actively eroding and the construction of a boat launch at this location might incur relatively due to slope stabilization.

5.0 Class D Estimate Costs for Select Boat Launch Locations

Following a preliminary review of the findings of this report, the RM of St. Clements requested the provision of Class D estimate costs for Location C and Location H. Based on cost estimates for mobilization and demobilization, site preparation, dredging, replacement of dredged material with granular material, shoreline excavation, backfill for platform and ramp, and road base and topping, Wood determined the Class D estimate costs of either of the two locations (i.e., Location C and Location H) to be within the magnitude of \$250,000 to \$500,000.

Refinement of the estimate costs given above will need additional input that is presently not available, including:

- A topographic survey at and around each of the two considered boat launch locations.
- A hydrographic survey of the bed of Lake Winnipeg spanning 200 m into the lake from the shoreline
 at and around the selected boat launch location(s), to characterize and understand the morphology
 of the lake bed in this area including any significant objects on the bottom, or any barriers to vessel
 navigation. The hydrographic survey will also be used to better quantify the volume of materials that
 would need to be removed (dredged or excavated) front in front of the boat launch locations to
 accommodate vessel navigation, if needed.
- Geotechnical investigation to confirm subsurface materials and their capacity to support and sustain a boat launch (i.e., boat launch ramp and associated vehicle turnaround and parking space).

5.1 Additional Environmental Permitting Cost Considerations

Should the RM of St. Clements choose to proceed with the boat launch project, the next stage would be the design stage which would include the compilation and filing of an *Environment Act* Proposal (EAP) with Manitoba Sustainable Development (MSD). The following site-specific investigations that would provide input for the EAP (or other regulatory submission if EAP is not required) would provide the needed information for the regulatory process. The estimated total cost of the studies and the EAP outlined below is \$100,000.

- DFO self-assessment and request for review, if needed, given that the development is a new boat launch on Lake Winnipeg and will have the potential to impact fish and fish habitat.
- Environment Act Proposal (EAP) in pursuit of an Environment Act Licence should MSD indicate the need for an EAP. The Manitoba Classes of Development Regulation does not list boat launches under recreation and tourist developments. Rather, the regulation lists "marinas". A marina refers to a dock or basin providing secure moorings for pleasure boats and often includes other amenities (e.g., repair

WX18492 | April 2019 Page 16 of 20



shop and fuel facilities). A preliminary discussion with MSD indicated that the potential for impact to fish and fish habitat associated with the ultimately chosen boat launch would be the main driver for MSD to request an EAP for the development.

• Heritage Resources Impact Assessment to assess for presence of heritage resources at the chosen boat launch location prior to start of construction activities.

6.0 References

Government of Canada. 2018. Species at Risk Public Registry.

Hilderman Thomas Frank Cram (HTFC). 2007. Grand Marais Redevelopment Plan Phase 1. Prepared for The Destination Grand Marais Committee.

Manitoba Herps Atlas Database. 2018.

Manitoba Sustainable Development. 2018. Manitoba Species at Risk Fact Sheet: Great Plain's Ladies'-tresses *Spiranthes magnicamporum*.

Manitoba Sustainable Development. 2018. Manitoba Species At Risk Fact Sheet: Baird's Sparrow *Ammodramus bairdii*.

Manitoba Sustainable Development. 2018. Manitoba Species at Risk Fact Sheet: Western Silvery Aster *Symphyotrichum sericeum*.

Manitoba Sustainable Development. 2018. Manitoba Species at Risk Fact Sheet: Piping Plover *Charadrius melodus*.

Matile, G.L.D. and Keller, G.R. 2004: Surficial geology of the Selkirk map sheet (NTS 62I), Manitoba; Manitoba Industry, Economic Development and Mines, Manitoba Geological Survey, Surficial Geology Compilation Map Series, SG-62I, scale 1:250 000.

R.M. of St. Clements. 2017. Zoning By-Law 5-2002.

Smith R.E., Ehrlich W.A., S.C. Zoltai. 1967. Soils of the Lac Du Bonnet Area. Manitoba Soil Survey.

WX18492 | April 2019 Page 17 of 20



Figures

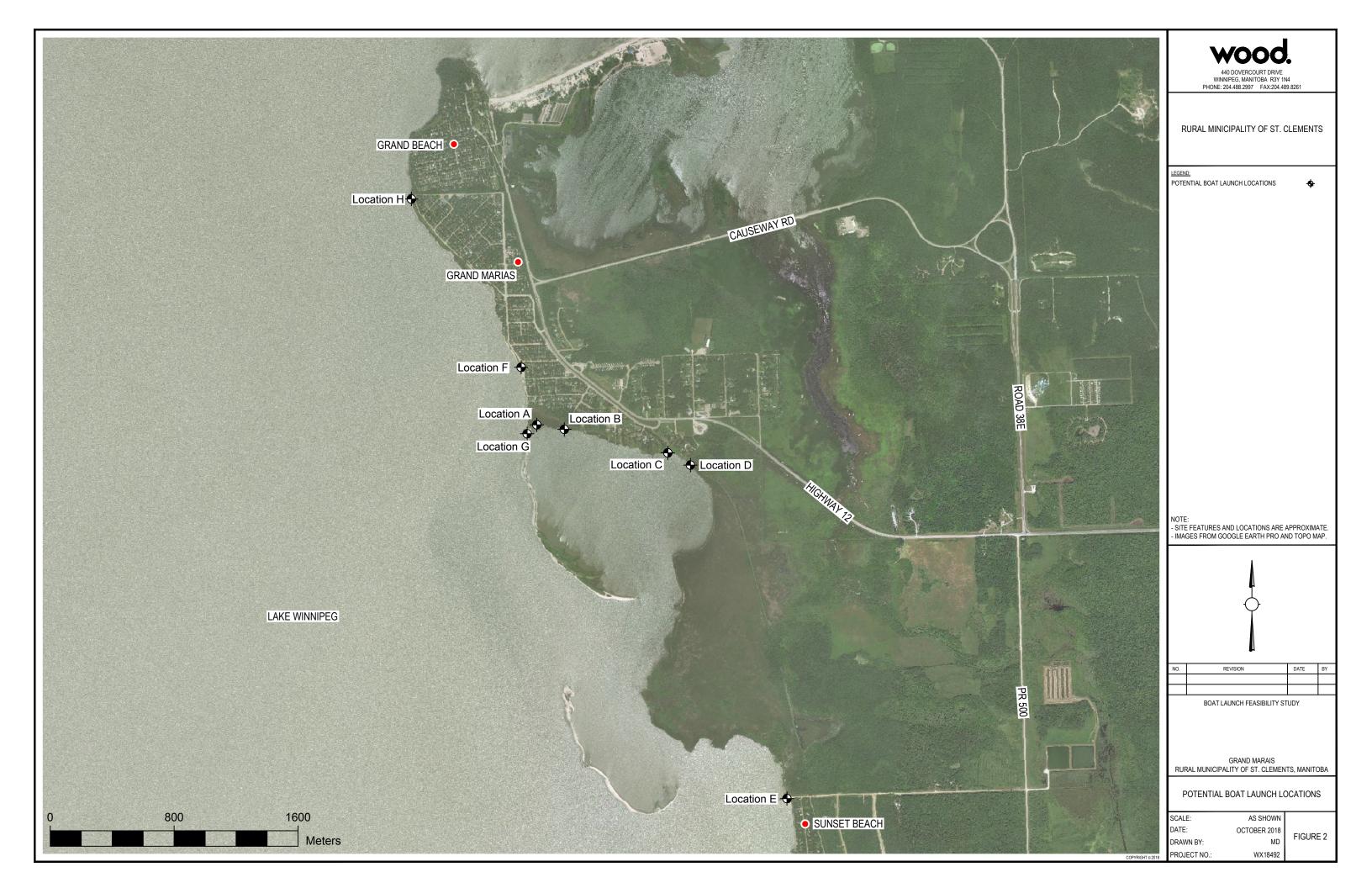
Figure 1: Site Location Plan

Figure 2: Potential Boat Launch Location Plan

WX18492 | April 2019 Page 18 of 20







Appendix A

Photos

WX18492 | April 2019 Page 19 of 20











Location A (within lagoon, east of sandspit)View of the lagoon portion which includes
Location A (foreground) and Location B
(background) facing east (in top and bottom left).
Marsh vegetation and treed area in background of both locations. Zebra mussels found near Location Δ

Project No.:

Date:

June 2018

Rural Municipality of St. Clements, Boat Launch Feasibility Study, Grand Marais, Manitoba

Appendix A

Project No. WX18492









Location B (within lagoon) – View of the lagoon portion which includes Location A (foreground) and Location B (background) facing east (in top and bottom left). Marsh vegetation and treed area in background of both locations (top and bottom right).

Rural Municipality of St. Clements, Boat Launch Feasibility Study, Grand Marais, Manitoba **Date:** June 2018

Project No.: WX18492







Location C (within lagoon)— Existing gravel access to Location C off Snowdon Bay (top photo). Constructed bird houses and nearby cottages to the potential location (bottom left). Location C appears to be used as a boat launch location (bottom right).

Rural Municipality of St. Clements, Boat Launch Feasibility Study, Grand Marais, Manitoba **Date:**June 2018

Project No.: WX18492





Location D (within lagoon) – Existing recreational trail facing east of Location D (top photo). Some marsh vegetation adjacent to Location D (bottom photo).

Rural Municipality of St. Clements, Boat Launch Feasibility Study, Grand Marais, Manitoba Date:

June 2018

Project No.: WX18492













Location E (at Sunset Beach) – Existing access to Location E at the eastern end of an unnamed gravel road off PR 500 (top row photos). Location E appears previously disturbed and is on open lake side (middle row photos). Marsh area north of Location E (bottom right photo) and existing public beach south of the Location.

Rural Municipality of St. Clements, Boat Launch Feasibility Study, Grand Marais, MB **Date:**June 2018

Project No.: WX18492













Location F – On open lake side off Grand Marais Blvd. near intersection with Thorncliffe Ave. Appears restricted for physical space given proximity to road and cottages.

Rural Municipality of St. Clements, Boat Launch Feasibility Study, Grand Marais, MB Date: June 2018

Project No.: WX18492 Appendix A









Location G – On sandspit which contains riparian trees and shrubs that provide shoreline habitat (top photos and bottom left photo). Recreational use of lake near sandspit (bottom right photo).

Rural Municipality of St. Clements, Boat Launch Feasibility Study, Grand Marais, MB Date:

August 2018

Project No.: WX18492













Location H – On open lakeside near corner of Parkview Ave and Grand Marais Blvd adjacent to a recreational park area on the southeastern end of Grand Beach Provincial Park. Steep terrain to the lake below (middle right photo) and stony/ rocky at bottom of steep area adjacent to the lake.

Rural Municipality of St. Clements, Boat Launch Feasibility Study, Grand Marais, MB

Date: August 2018

Project No.: WX18492

Appendix B

Heritage Resources Branch Response for Screening Request

WX18492 | April 2019 Page 20 of 20





Memorandum

DATE: 2018-10-16

TO: **Wara CHIYOKA** FROM: Hani KHALIDI

Environmental Scientist Impact Assessment Archaeologist

Environment and Infrastructure Solutions Historic Resources Branch

Wood PLC Main Floor – 213 Notre Dame Avenue

440 Dovercourt Drive. Winnipeg, Manitoba, R3B 1N3

Winnipeg MB R3Y 1N4

PHONE NO: (204) 945-2118 Suvoko TSUKAMOTO FAX: (204) 948-2384

Impact Assessment Archaeologist E-MAIL: hani.khalidi@gov.mb.ca Historic Resources Branch

Screening Request - Boat Launch Feasibility Study SUBJECT:

HRB File #: AAS-18-13768

Concerns.

Further to your e-mail regarding the above-noted screening request for a boat launch feasibility study, the Historic Resources Branch has examined the potential locations you provided in conjunction with Branch records for potential concern. The proposed locations are all located along the southeastern shoreline of Lake Winnipeg, an ancient waterbody and waterway known to be well travelled historically and visited by Past Peoples. In addition there are archaeological sites, an historic trail and trade post within the region. These factors, to name a few, indicate a high potential for heritage resources to be present. Any future planned development within the proposed zones has the potential to impact undiscovered heritage resources, therefore the Historic Resources Branch has concerns.

Under Section 12(2) of The Heritage Resources Act, if the Minister of Sport, Culture and Heritage has reason to believe that heritage resources or human remains are known, or thought likely to be present, on lands that are to be developed, then the owner/developer is required to conduct at his/her own expense, a heritage resource impact assessment (HRIA) and mitigation, if necessary, prior to the project's start.

The developer must contract a qualified archaeological consultant to conduct a Heritage Resources Impact assessment (HRIA) of the proposed development location, in order to identify and assess any heritage resources that may be negatively impacted by development. If desirable, the Branch will work with the developer/land owners and its consultant to draw up terms of reference for this project.

If you have any futher questions or comments, please feel free to contact the Branch as above.

Manitoba Historic Resources Branch Archaeological Assessment Services