

Project Description

Project 4 - All-Season Road Connecting Berens River to Poplar River First Nation

Prepared for:

**Canadian Environmental Assessment Agency
Manitoba Conservation and Water Stewardship**

Submitted by:

Manitoba Floodway & East Side Road Authority

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1 GENERAL INFORMATION AND CONTACTS

1.1 Nature of the Project and Proposed Location

Historically, communities such as Poplar River First Nation and Berens River FN and Northern Affairs Community (NAC), on the east side of Lake Manitoba, have relied primarily on winter road and air travel to transport people and goods. In 2008, the Government of Manitoba announced a strategic initiative to provide improved, safer and more reliable transportation services to connect the remote communities on the east side of Lake Winnipeg with the rest of Manitoba. The Manitoba Floodway and East Side Road Authority (MFESRA) was established as a provincial Crown Agency to manage the East Side Transportation Initiative with the intent of increasing transportation opportunities for communities on the east side of Lake Winnipeg (Map 1). The Manitoba Floodway and East Side Road Authority's mandate includes planning, design and construction of all season roads to improve the connectivity of First Nations and other northern communities on the east side of Lake Winnipeg to the provincial highway system.

The first all-season road initiated in this regional transportation network (Project P1) connects Provincial Road 304 (near Hollow Water First Nation) to Berens River First Nation and Berens River Northern Affairs Community (NAC). On August 16, 2010, following an environmental assessment under *The Environment Act* (Manitoba), Manitoba Conservation issued Licence No. 2929 for this road. On July 26, 2011, following a Comprehensive Study conducted under the Canadian Environmental Assessment Act, the federal Minister of the Environment concluded that there were no likely significant adverse effects from the project, and that the identified mitigation measures and follow-up program were appropriate for the project. This road is currently under construction.

MFESRA is now proposing to construct an all-season road extending north from the P1 road. The proposed alignment consists of 94.1 km of all-season road on a new right of way on provincial Crown land (Map 2). The road will begin at the junction at the English Rapids Road immediately south of Berens River, and west of Berens River First Nation, and extend north to Poplar River First Nation (PRFN) (Map 3). At the reserve boundary, the all-season road will connect to a 410 m Community Access Road (CAR) that is anticipated to be built on PRFN (Map 4). The purpose of the proposed project is to connect Poplar River First Nation to the all season road currently under construction, providing year-round vehicular access for the community to the southern road network.

The all-season road will be a gravel-surface public highway, with a design width of 10 m, a design speed of 100 km/h, and a posted speed of 90 km/h. It will be east of the current winter road alignment, with 4 major (bridge) water crossings over the Berens, Etomami, North Etomami, and Leaf Rivers (Map 5). The alignment crosses undeveloped land in the Boreal Shield Ecozone (Smith 1998), within the Nelson River watershed, via drainage into Lake Winnipeg.

1.2 Proponent Information

1.2.1 Name of the Project

The project name is "Project 4 – All-Season Road from Berens River to Poplar River First Nation" (P4 - ASR).

1.2.2 Name of the Proponent

The proponent of the proposed P4-ASR Project is the Manitoba Floodway and East Side Road Authority (MFESRA). The Province of Manitoba will provide funding for the proposed P4-ASR.

MFESRA is not the proponent of the Community Access Road (CAR) on Federal Reserve land. That project will be proposed separately, with funding for the CAR anticipated from the Government of Canada. Depending on the nature of the funding, MFESRA may provide technical assistance related to road design and contract administration, and development opportunities through training and mentoring for PRFN. The CAR will be an asset of the First Nation.

1.2.3 Address of the Proponent

The address of the proponent is:

200-155 Carlton Street
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1.2.4 Chief Executive Officer

The Chief Executive Officer for the MFESRA is:

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1.2.5 Principal Contact Person

The principal MFESRA contact person for the project description, and for environmental matters related to the proposed project, is:

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1.3 Jurisdictions and Other Parties Consulted

Poplar River First Nation, Berens River First Nation, and Berens River Northern Affairs Community have been engaged throughout project planning and during preparation of the project description. These communities are in the vicinity of the P4-ASR and are most likely to be directly affected by the project, and able to provide relevant information. MFESRA has provided a copy of the Project Description to each of these communities.

Discussions on an all weather road network on the east side of Lake Winnipeg have been ongoing since 1999 with other stakeholders, in addition to the local communities named above. These discussions have included information regarding the proposed P4-ASR as part of the larger network. Those engaged in discussion with MFESRA include regulatory bodies, east side communities, Aboriginal leadership organizations, industry, and other key stakeholders.

Participants in these discussions include:

Other East Side Communities:

- Bloodvein First Nation
- Hollow Water First Nation
- Pauingassi First Nation
- Little Grand Rapids First Nation
- St. Theresa Point First Nation
- Garden Hill First Nation
- Wasagamack First Nation
- Red Sucker Lake First Nation
- God's Lake Narrows First Nation
- Manto Sipi Cree Nation
- Bunibonibee Cree Nation

Regulatory Agencies:

- Canadian Environmental Assessment Agency
- Aboriginal Affairs and Northern Development Canada
- Department of Fisheries and Oceans
- Transport Canada
- Environment Canada
- Manitoba Conservation and Water Stewardship, Winnipeg
- Manitoba Conservation and Water Stewardship, Northeast Region
- Manitoba Aboriginal and Northern Affairs
- Manitoba Infrastructure and Transportation

Organizations and Other Stakeholders

- Manitoba Metis Federation
- South East Resource Development Council
- Island Lake Tribal Council
- Keewatin Tribal Council
- Manitoba Lodges and Outfitters Association
- Manitoba Trappers Association

1.4 Environmental Assessment Requirements

1.4.1 Canadian Environmental Assessment Act, 2012 (Canada)

The proposed P4 - ASR on provincial Crown land (94.1 km) is a designated project under the *Canadian Environmental Assessment Act, 2012* (CEAA, 2012), and therefore may require an environmental assessment under the authority of the CEAA, 2012, subsequent to federal and public review of this Project Description under the provisions of that legislation.

1.4.2 The Environment Act (Manitoba)

The proposed P4 - ASR from Berens River to Poplar River First Nation involves construction of 94.1 km of road construction on new right of way on provincial Crown land and requires an Environment Act Licence under *The Environment Act* of Manitoba as a Class 2 development, under the Classes of Development Regulation pursuant to that legislation. This Project Description will form part of the Environment Act proposal submitted to Manitoba Conservation and Water Stewardship to initiate the provincial environmental assessment process.

1.4.3 Canada-Manitoba Agreement on Environmental Assessment Cooperation

The proposed ASR may be reviewed under the provisions of the Canada/Manitoba Agreement on Environmental Assessment Cooperation (2007). A provincial environmental assessment is required under *The Environment Act* (Manitoba), and an environmental assessment under CEAA, 2012 may also be required, subsequent to the public and regulatory review of this Project Description.

1.5 Regulatory Requirements

In addition to the environmental assessment and licensing requirement under *The Environment Act* (Manitoba) noted above, provincial permits and approvals will be sought as required for road construction activities such as vegetation removal, camp development, burning, and quarry development. Provincial legislation includes *The Crown Lands Act*, *The Mines and Minerals Act*, *The Wildfires Act*, *The Dangerous Goods Handling and Transportation Act*, and *The Workplace Safety and Health Act*.

MFESRA will also seek permits and authorizations under other federal legislation, including approvals from Transport Canada under the *Navigation Protection Act*; authorizations from Fisheries and Oceans Canada, under the *Fisheries Act*, for major water crossings. If required, licenses under *The Explosives Act* will be sought from Natural Resources Canada for storage of explosives.

Both provincial and federal regulatory requirements are described in more detail in section 4.3 of this report.

Although not a requirement under regulation, MFESRA has sought agreement on the alignment from both Berens River First Nation and Poplar River First Nation through Band Council Resolution (BCR) from each community (Attachments 1 and 2).

1.6 Regional planning context

There is no regional environmental study for the area for the proposed P4-ASR, but the area has been subject to a number of regional planning initiatives, that have included environmental considerations.

In 2000, Manitoba launched the East Side Planning Initiative (ESPI) to bring together local communities, First Nations, industry, and environmental organizations to develop a vision for land and resource use on the east side of Lake Winnipeg. It was expected that this process would result in an overall blueprint for the area that would address the boreal forest, protected areas, traditional activities, transportation needs, and economic development.

In 2004, a status report entitled *Promises to Keep* was submitted to government and included recommendations for boreal protection and community development (East Side Planning Initiative, 2004). In 2005, the name of ESPI was changed to Wabanong Nakaygum Okimawin (WNO) to reflect First Nations people, who make up about 96 per cent of the population in the area. (The new name is made of Cree and Ojibway words for “East side of the Lake Governance.”) Poplar River First Nation, Berens River First Nation, and the Manitoba Metis Federation participated in the East Side Planning Initiative/WNO.

In 2007, Manitoba signed the *Wabanong Nakaygum Okimawin Council of Chiefs Accord* with WNO First Nations, reinforcing a foundation for comprehensive traditional area land-use planning, and ultimately, a broad area plan for the east side of Lake Winnipeg. Under the WNO Accord, individual First Nations are developing traditional land use plans. In May, 2011, Poplar River First Nation developed and published *Asatiwisipe Aki Management Plan* (Poplar River First Nation, 2011) (Figure 1). The Government of Manitoba subsequently designated the land use planning area identified in the plan through regulation under *The East Side Traditional Lands Planning and Special Protected Areas Act (Manitoba)* in June, 2011 (Regulation 77/2011). The land management plan is for an area approximately 862,000 hectares, and comprises all 15 traplines of the Poplar River Trapline District (Poplar River First Nation, 2011). The zoning plan contained within the *Asatiwisipe Aki Management Plan* specifically allows for an all-season road.

Berens River First Nation has neither identified, nor requested legal designation of a land use planning area and is proceeding with land management planning under the Wabanong Nakaygum Okimawin (WNO) program (Haugh, 2014).

Concurrent with the East Side Planning Initiative and subsequent community-based traditional land use planning initiatives, Manitoba Highways and Government Services (Manitoba Infrastructure and Transportation) and later MFESRA undertook regional investigations on the east side of Lake Winnipeg related to transportation. In 2000, under Manitoba Highways and Government Services, the *East Side of Lake Winnipeg All Weather Road Justification and Scoping Study* reviewed transportation needs for residents of the east side. The study assessed various transportation modes and identified potential routing networks for all season roads up the east side of Lake Winnipeg with road based community and stakeholder input.

The East Side Large Area Transportation Network Study, which followed in 2009, identified potential transportation infrastructure improvements that would provide year-round access to the communities on the east side of Lake Winnipeg (SNC-Lavalin, 2011). The final report of that Study was completed in 2011 and recommended an all season road network for the region that

is estimated to be 1,028 km in length and that would cost approximately \$3 billion (in 2011 dollars). Various route options for an ASR from Berens River to Poplar River First Nation were considered and the easterly alignment was selected as the preferred routing corridor, taking into consideration technical and environmental concerns, and community preferences.

Subsequent discussions with Poplar River First Nation and Berens River First Nation with information from terrain analysis, and archeological, wildlife and fisheries investigations have refined the route to the current proposed road alignment.

2 PROJECT INFORMATION

2.1 Project Overview

As part of the East Side Transportation Initiative, MFESRA is proposing the construction of Project 4 - an all-season road along the east side of Lake Winnipeg from Berens River to Poplar River First Nation (P4 – ASR). The proposed P4 - ASR will extend north from the first segment of the Transportation Initiative network – an all season road from PR 304 to Berens River along the east side of Lake Winnipeg (Project P1), already under construction.

The proposed ASR will consist of 94.1 km of all-season road on new right of way from the Berens River to the southern boundary of Poplar River First Nation (Map 2). The ASR will be located east of the current winter road alignment, with 4 major water crossings over the Berens, Etomami, North Etomami, and Leaf Rivers. The road will be built to the Manitoba design standard of secondary arterial road (Government of Manitoba, 1988), and will be designed as a 2-lane gravel highway, with a 10m top width, and a design of 100km/hr. The project will require four bridges over named rivers (Berens River, Etomami River, Northern Etomami River and the Leaf River), as well as culverts for smaller watercourse crossings, and drainage. The alignment crosses undeveloped land in the Boreal Shield Ecozone (Smith 1998), and is located within the Nelson River watershed, draining into Lake Winnipeg via streams and rivers.

The key objectives of the East Side Transportation Initiative are to:

- Provide alternative transportation to the increasingly unreliable winter road network,
- Reduce transportation costs for goods and services;
- Improve linkages between communities,
- Enhance access to emergency, health and social services,
- Provide construction employment, training and economic opportunities, and
- Enhance opportunities for local sustainable economic development.

Consistent with these overall objectives, the purpose of the P4-ASR is to connect Poplar River First Nation to the all season road currently under construction (Project P1 – PR 304 to Berens River). The community is currently serviced only through winter road access, or by air. Goods may be transported by barge across Lake Winnipeg. With the completion of P4-ASR, Poplar River First Nation will gain year-round vehicular access to the southern road network in Manitoba, with anticipated benefits of reducing transportation costs for goods and services, and enhanced access to other services. Both Poplar River and Berens River First Nation will benefit from the improved linkage between their communities. In addition, both First Nations will have an opportunity to benefit from construction employment, training, and economic opportunities for their community members.

2.2 Provisions of Regulations Designating Physical Activities

The proposed all season public road is 94.1 km long, and will be located on a new right-of-way on provincial Crown land. Therefore, s. 25(c) of the *Regulations Designating Physical Activities* (the *Regulations*) pursuant to the *Canadian Environmental Assessment Act, 2012* (CEAA, 2012) applies:

- s. 25** *The construction, operation, decommissioning and abandonment of a new*
(c) all-season public highway that requires a total of 50 km or more of new right of way;

No other provisions of the *Regulations* apply.

2.3 Project Components and Activities

2.3.1 Physical Works Associated with the Designated Project

The proposed P4-ASR will be built on provincial Crown land and has eight main components including:

1. All-season road (94.1 km) on new right of way
2. Four Steel Girder or Concrete Bridges at river crossings
3. Culverts for stream crossings or drainage equalization
4. Temporary Construction Bridges
5. Temporary Construction Access Trails
6. Rock Quarries and Granular Borrow Areas
7. Temporary Construction Staging Areas
8. Temporary Construction Camps

The P4-ASR will extend north from the Project 1 (P1) all-season road currently under construction from PR 304 near Hollow Water First Nation to Berens River. The completed segments and the existing winter road network will support the project by providing all season access for some of the construction equipment and materials that will be required for P4-ASR.

(The proposed CAR on Poplar River First Nation reserve land is not part of the designated project. An environmental assessment for the P4-ASR will include the CAR with reference to cumulative effects.)

2.3.2 Anticipated Size and Capacity of the Designated Project

2.3.2.1 All-Season Road

An all season public highway over 50 km in length on new right of way is described on the *Regulations Designating Physical Activities* that are pursuant to CEAA, 2012 (see Section 2.2). The proposed alignment for the P4-ASR is 94.1 km in length, all on new right-of-way on provincial crown land. Most of the alignment is located approximately 5 to 10 km east of the existing winter road corridor, to avoid the lower and wetter conditions of that route. The route alignment for approximately the last 5 km (kilometre station 90 to 94.1) is closer to the current winter road. The P4-ASR will be centered on a 100 m right-of-way with a typical clearing width of 60 m and additional clearing as required in horizontal curves to maintain sight distances. Approximately 565 ha will be cleared for the all-season road on provincial Crown land.

The road will be built to the standard of a secondary arterial road, according to published Manitoba Highway Standards (Manitoba Department of Highways and Transportation, 1998). In keeping with these standards, the roadway will be constructed with a road top width of 10 m. The road will be designed to a speed of 100 km/hr, or less where natural landscape features inhibit the design standard.

2.3.2.2 Quarries and Borrow Pits

Sites within or directly adjacent to the ROW will be developed for excavation of borrow materials, gravel and rock, for use in construction of the P4-ASR. The *Regulations Designating Physical Activities* include references to the construction and/or the expansion of quarries with a production capacity of 3 500 000 t/a or more (s.16 and s. 17). No single quarry, borrow pit, or gravel pit associated with the proposed P4 – ASR will have a production capacity of that size. Further information will be provided within the Environmental Impact Statement.

2.3.3 Project Components that are Expansions

The project is a new all-season road on new right of way, within the larger East Side Large Area Transportation Network. The road will connect to Project 1 (P1 – All-season Road from PR304 to Berens River), which is under construction. P4-ASR is considered a new project within the larger East Side Large Area Transportation Network, and is not considered an expansion.

2.3.4 Activities Incidental to the Designated Project

Planned activities are integral, and not incidental, to the completion and operation of the designated project. Subsequent to construction, quarries or gravel pits developed for construction and maintenance of P4-ASR may also be available for quarry materials for other proponents including Poplar River First Nation or Berens River First Nation. This would, however, require separate quarry permit or lease permits from Mines Branch (Manitoba Mineral Resources), or work permits from Manitoba Conservation and Water Stewardship.

Through Community Benefits Agreements (CBAs) with MFESRA, Poplar River First Nation and Berens River will conduct clearing, quarry development and rock crushing activities for the proposed P4-ASR. The project is specifically structured to provide employment, training and economic opportunities for local residents during the construction, and operation and maintenance phases. The conditions of the CBA require MFESRA to retain the ability to direct or influence the carrying out of these activities.

Other construction activities will also be undertaken under the care and control of MFESRA, either directly through the CBA as pilot projects or through contractors hired through a competitive bidding process, and monitored by MFESRA. Contract specifications and management are under the control of MFESRA.

2.4 Emissions, Discharges and Wastes

2.4.1 Atmospheric contaminant emissions

During construction, atmospheric emissions, including greenhouse gases, will predominantly be the result of combustion emissions from the construction vehicles, equipment and machinery used in the proposed all-season road project. These will include sulphur dioxide, nitrous oxides, carbon dioxide, and particulate matter. Localized atmospheric emissions may occur, including dust from construction activities, and particulate matter as a result of burning brush piles

resulting from clearing of the right of way. This will be reduced through ensuring that the communities of Poplar River and Berens River First Nations have access to salvageable wood before burning wood waste. Other localized emissions include blasting residue at quarries or some work sites.

During operation, localized atmospheric emissions can be expected due to similar combustion emissions from vehicle traffic and road maintenance activities and generation of airborne dust by traffic. The amount of combustion emissions due to road traffic will increase from the current situation, since there will be year round vehicle traffic instead of only during the winter road season. Emissions from air traffic and annual winter road construction, however, are anticipated to decrease, due to the road access.

Emissions will be described in more detail in the Environmental Impact Statement for the project.

2.4.2 Liquid Discharges

There are no processing streams that would result in liquid discharges. Septage waste at construction camps or work sites is noted in section s. 2.4.3

2.4.3 Types of Waste and Disposal plans

Wood from clearing of the right-of-way will first be segregated into usable timber. The remaining material will be piled or windrowed for burning on site. Domestic solid waste will be collected in appropriate on-site containment, for later transport to an approved community landfill. Septage waste at construction camps or sites will be stored in approved containers and will be hauled for disposal and treatment licensed or approved treatment facilities. Waste petroleum products (e.g., lubricants, oils, greases) derived from construction vehicles and equipment will be collected and stored in designated areas and containers until they can be removed from site for recycling or disposal through a licensed waste disposal/treatment company.

Solid, liquid and hazardous wastes from the road project will be collected, stored, transported, disposed of and/or treated in accordance with *The Environment Act* (Waste Disposal Regulation), *The Dangerous Goods Handling and Transportation Act* (Dangerous Goods Handling and Transportation Regulation, Environmental Accident Reporting Regulation, and Storage and Handling of Petroleum Products and Allied Products Regulations) and *The Transportation of Dangerous Goods Act*. Impacted soil from hydrocarbon spills will be assessed and any soil determined to be contaminated will be managed on-site or removed to an approved treatment site.

2.5 Project Phases and Scheduling

2.5.1 Anticipated Scheduling

Environmental and engineering studies are currently under way and will support completion of the environmental assessment and planning processes. Construction activities are anticipated to begin in 2016/2017. The P4-ASR will provide all-season access between the communities approximately 10 years after construction begins.

The alignment will be divided into segments to optimize construction scheduling and resource use. Segments will undergo pre-construction and construction stages sequentially such that completion of the construction phase at one segment will initiate the pre-construction of the

adjacent segment. Construction will commence from both the north and the south ends of the road. Once road construction is initiated, the northern portion of the winter road may be moved to the ASR alignment to facilitate construction and improve winter road reliability as ASR segments are completed.

In general, road building construction is not seasonally constrained, but may be scheduled around conditions that provide for better access. Timing constraints are placed on select aspects of the project to protect environmental or infrastructure components. These will be identified as mitigation measures in the environmental assessment and/or stipulated in associated authorizations or approvals.

2.5.2 Main activities in each phase of the designated project

The proposed all-season road Project will be carried out in four main stages as follows:

1. Planning and Design
2. Pre-construction
3. Construction
4. Operation and Maintenance

There are no plans to decommission or abandon the proposed P4-ASR as it will provide all season access from Berens River to Poplar River First Nation, and to the southern all season road network, for the foreseeable future. Decommissioning of temporary components (temporary access trails, quarries and borrow areas no longer required for maintenance, staging areas and construction camps) will occur as part of the construction phase of the project.

Until construction is complete, the existing winter road will be established annually, and closed at the end of each road season, as is the current practice. After ASR construction, the winter road will be abandoned. MFESRA will block access to the existing winter road right-of-way. The natural fen and bog conditions of the low-lying terrain along the winter road alignment will also inhibit ongoing use or access. MFESRA will provide for re-vegetation where required.

2.5.3 Planning and Design

Planning and design for the proposed P4-ASR involves identifying broad road corridors, possible road alignments within the corridors, selecting the final road alignment and preparing the detailed road design. This starts with an engineering assessment followed by community input to the preliminary and functional engineering analysis. Baseline environmental studies including soils investigations, Aboriginal and public engagement and the environmental assessment are conducted during this stage.

2.5.4 Pre-Construction

During the pre-construction stage, detailed design will be completed and environmental protection plans finalized. Equipment, machinery, vehicles, construction materials and supplies including fuel, generators, trailers and other provisions will be transported into the project location via the newly constructed road from PR304 to Berens River. Construction supplies and equipment will also be transported to the northern terminus of the all-season road via the winter road, and stockpiled at staging areas pending road construction. Bridge and stream crossing locations, quarry and borrow areas, temporary access trails, construction staging areas and construction camps will also be located, surveyed and flagged. Detailed geotechnical

investigations and testing will be conducted along the all-season road right-of-way, temporary access trails, quarry sites and borrow areas.

2.5.5 Construction

During the construction stage, equipment marshalling and lay down areas, and construction camps will be prepared, and rock quarries and borrow areas will be cleared and made ready. The proposed all-season road, culvert crossings, and bridge crossings will then be constructed.

2.5.5.1 Vegetation Clearing

Vegetation clearing will be required for most permanent and temporary components of road construction. Along the right-of-way, vegetation will be cleared to a width of 60 m (potentially wider on the inside of curves for sight visibility where required). Clearing consists of the removal and disposal of all trees, shrubs, fallen timber and surface litter. Vegetation will be cut by local clearing crews using tree fellers, brush cutters and hand tools, and piled or windrowed using dozers. Organic materials stripped from the surface will be stockpiled for use on road shoulders. Salvageable materials (logs or timber) will be stockpiled for community use. Where required, stumps and roots will be grubbed out and separated from the soil. Non-salvageable material such as brush, roots, and limbs will be piled and burned or buried.

2.5.5.2 Temporary staging areas and construction camps

Temporary staging areas and camps will be established by the road construction contractor at various locations along the proposed right-of-way to support crews, and to store construction vehicles, equipment and machinery, construction materials and supplies. Approximately five (5) staging areas and camps will be established. After clearing as described above, the area will be contoured and levelled, and provided with drainage control and erosion protection. An aggregate base may be established depending on ground conditions. Buildings and other structures will be skidded in or constructed on site. These areas may be fenced, and site security provided where required. Petroleum products will be stored in double-walled tanks in accordance with the National Fire Code of Canada and *The Dangerous Goods Handling and Transportation Act* (Manitoba), Storage and Handling of Petroleum Products and Allied Products Regulation. Sanitary and solid waste will be collected and transported to licensed or approved waste disposal and treatment facilities.

2.5.5.3 Rock quarries and borrow areas

New rock quarries and borrow areas will be developed to provide crushed rock and granular materials. Crushed rock and granular materials are required for construction of the all-season road, bridge abutments, riprap, stream crossings, temporary access trails, and construction camps.

The road design will be based on cut and fill requirements to the extent possible, with additional fill to be provided from quarried sources. Blasting of rock and gravel crushing will typically take place within the quarries. Borrow areas or pits will be established where the soil/earth has been tested and determined suitable for road embankment construction, if the existing soil at the road construction site is unsuitable for this. Where they are no longer required for long-term road maintenance activities, these areas will be decommissioned.

The quarry and borrow sites will be located on provincial Crown land in the vicinity of the alignment, estimated within 500 m of the centreline right of way. Where this is not possible, temporary access trails will be established to connect the various project components as required. No quarries will be built on reserve land. The total area for rocks quarries and borrow

areas is estimated to be 1000-2000 ha, depending on the final number of quarries and borrow areas established.

2.5.5.4 Temporary access trails

During construction, temporary access trails may be required to access the all-season road right-of-way from the winter road at the northern portion, from approximately km 85 to the northern terminus. These trails will be utilized to facilitate emergency access to the site and to provide access for equipment and personal. Each access trail will be up to 1.5 km long.

Access trails will be cleared, but not grubbed, and will be constructed to accommodate the width of a machine (approximately 5 m). Efforts will be made to follow existing trails or otherwise locate in areas of sparse vegetation. Erosion protection and sediment control measures will be provided and drainage will be managed as required. Access trails will be required for the duration of construction of a road segment, and will be decommissioned when they are no longer needed.

2.5.5.5 Road construction

The road bed will be prepared to a width of 18 m depending on ground conditions, resulting in a final road width of 10 m. After clearing and grubbing, road construction activities will begin with contouring, and blasting of rock outcrops. Organic materials will be stripped, stockpiled and used along road shoulders. Materials, including rock fill aggregate and composite material will be loaded, hauled, dumped, spread, graded and compacted, and trimmed and shaped before final gravelling. Other activities may include placement of geotextile fabric in wet areas to strengthen the integrity of the road, riprap, roadway signs, erosions and sedimentation control and seeding of ditches.

2.5.5.6 Stream Crossings and Equalization Culverts

Culverts will be installed at smaller stream crossing locations and where it is determined that spring melt or storm run-off needs to pass from one side of the road to the other to prevent flooding and erosion damage,. Culverts are installed by excavating a trench to the required elevation through the road embankment. The trench is then backfilled and compacted to the culvert grade elevation with a granular bedding material. The new culvert may be pre-assembled and lowered into the trench, or in the case of concrete pipe, be assembled by connecting short sections of the pipe in the trench. The pipe is backfilled with granular material to support the pipe adequately and reduce settlement in the road embankment. Equalization culverts will also be installed at a number of locations along the road to maintain natural hydraulic equivalency. Culverts will be put in place as construction progresses along the alignment.

2.5.5.7 Bridge Construction

Bridge construction is a major component of the proposed P4-ASR. Bridges are required at four major crossings: the Berens River, Etomami River, North Etomami River, and the Leaf River. Material will be transported to site from the south along the all season road as it is constructed, or may be barged to Poplar River FN and brought from the north.

Depending on final design, bridge construction activities may include drilling and blasting of bedrock, installing geotextile fabric, installing erosion and sediment control measures (installing riprap, straw, ditch checks, silt fences and silt curtains, and the installation and removal of cofferdams), placing and compacting granular materials, erecting concrete forms, pouring

concrete, assembling bridge components and hoisting them into place, and site restoration through seeding and/or planting if natural re-vegetation is not sufficient. A concrete batch plant may be established and located in close proximity to each crossing to produce concrete for bridge abutments and piers where required.

Temporary construction bridges (e.g. snow fills, ice bridges, or engineered structures) may be required to transport equipment and materials across waterways to facilitate permanent bridge construction. These bridges may include temporary in-water works such as piers and cribbing, and may not allow for navigation during installation. Following site preparation, construction activities may consist of flooding winter ice and packing clean snow to create an ice bridge, or installing geotextile fabric, erosion protection and sediment control measures, placing, grading, and compacting granular materials, assembling bridge components (if required), launching the bridge, and installing timber decking and metal guardrails.

2.5.5.8 Demobilization of temporary structures and construction areas

All facilities and work areas including quarry and borrow areas, temporary access trails, staging areas and construction camps, and temporary construction bridges that will not be needed for future maintenance activities will be demobilized following construction.

Aggregate material from temporary access trails will be salvaged and used in borrow area reclamation, and the roads levelled and trimmed. Borrow pits will be levelled and trimmed when excavation is complete. Bridge parts will be reused in other programs. Disturbed areas will be restored by spreading stockpiled topsoil and encouraging natural re-vegetation and seeding and/or planting as required.

2.5.6 Operation and Maintenance

Maintenance activities for the all-season road such as routine scheduled grading, topping the road with additional aggregate and management of vegetation and culvert cleanouts will occur over the life of the road. In the winter, snow clearing activities will use ploughs, graders, loaders and dump trucks. Road salt and other ice melting and dust suppression chemicals may be used to control dust and ice on the road surface once re-vegetation growth has been achieved. Only chemicals approved for use on similar roads in Canada will be used, the substance will be applied as specified by the manufacturer, and only if and where necessary and not beyond the road surface. Aggregate materials will be sourced from borrow areas located on provincial Crown land and will be deposited on the road surface using dump trucks, dozers and graders.

3 PROJECT LOCATION

3.1 Location Description

The proposed all-season road Project is on the east side of Lake Winnipeg, beginning near the Berens River First Nation (approximately 270 km by air north of Winnipeg). It will extend north approximately 94.1 km from the English Rapids Road on the south side of the Berens River to the Poplar River First Nation reserve boundary (approximately 400 km by air north of Winnipeg). From there, a Community Access Road (CAR) approximately 410 m in length will connect the all-season road to the existing road network on the Poplar River First Nation reserve.

3.2 Coordinates

Coordinates for the proposed P4-ASR are:

Southern terminus (from junction with English Rapids Road immediately south of the Berens River):

Latitude: 52° 19' 08.9832" N
Longitude: 96° 54' 23.0081 " W

Northern terminus (at Poplar River First Nation boundary):

Latitude: 52° 59' 02.6556" N
Longitude: 97° 14' 56.4259 " W

3.3 Site Map/Plan

The proposed route for the P4-ASR, with kilometre stations, is shown in Map 2.

3.3.1 Detailed Site Maps

Maps and figures showing the proposed alignment are provided at the end of the document.

These maps and figures include, where applicable and known:

- Watercourses, and waterbodies;
- Bridge Crossing locations over the Berens, Etomami, North Etomami, and Leaf Rivers;
- Linear and other transportation components (including airports, winter road corridor, and power transmission line);
- Location of Asatiwisipe Aki Land Use Planning Area (Traditional use area for Poplar River First Nation, designated by regulation) (Figure 1);
- Federal land, consisting of reserve lands for Berens River and Poplar River First Nations (note: there are no National historic sites, National parks, or Heritage Rivers in the area);
- Berens River Northern Affairs Community;
- Provincial and international boundaries.

Because the area is undeveloped, there are no existing or past commercial development sites, industrial facilities, or waterborne structures in the local project area with the exception of some former wild rice harvesting areas that are currently inactive, and commercial traplines.

However, Poplar River FN is in process of developing a quarry site south of the community in the vicinity of the project to provide aggregate for on-reserve and airport needs. There are no Treaty Lands Entitlement (TLE) areas in the region.

The locations of isolated trapper cabins for seasonal or temporary use are not fully identified at present, but are not located in the alignment corridor.

Eight archaeological sites or specific sites of traditional use or cultural importance in the vicinity of the alignment in Poplar River's traditional land use planning area were identified through Traditional Knowledge workshops with elders and resource users in September 2012, and subsequent archeological investigations (Northern Lights, 2013), but are not shown on the maps due to their confidential nature. Archaeological inventory site forms were prepared for each site and submitted to the Historic Resources Branch of the Manitoba Department of Tourism,

Culture, Heritage, Sport and Consumer Protection, in partial fulfillment of heritage permit requirements.

3.3.2 Photographs of Work Locations

Photographs of areas within the project area, or of representative photos from other project areas on the east side of Lake Winnipeg are provided at the end of the text. These include:

- Small stream crossings and drainages being assessed for fish habitat, requiring culverts;
- Representative photos of typical water crossing or drainage structures (bridges and culverts) from Project 1: All season road from PR304 to Berens River;
- Potential quarry site (rock outcrop) south of Poplar River;
- Four major waterways that will require bridge crossings (Berens, Etomami, North Etomami, Leaf Rivers);
- Berens River First Nation community
- Poplar River First Nation community, including location of existing transmission line and winter road right of way.

3.3.3 Proximities

3.3.3.1 Residences and First Nations Reserves

There are no known residences or cabins in immediate proximity to the proposed all-season road. The nearest residences are in the communities on the reserves.

The P4-ASR will be built on provincial Crown land (94.1 km) and will connect to the proposed CAR at the boundary with the Poplar River First Nation reserve. The CAR is anticipated to be 410 m in length on federal reserve land, and will connect to the existing on-reserve road network. The on-reserve population is 1,265 (Southeast Resource Development Council: 2014), with most residences located north of the Poplar River, on the existing road network. There are three to five residences or other buildings situated on the south shore of the River, on the existing community road network, approximately 100 metres from the junction with the proposed CAR (Photo 17), and approximately 500 metres from the northern terminus of the P4-ASR.

The south end of the P4-ASR is 500 m east of the boundary of the Berens River First Nation reserve, and approximately 7 km east of the nearest residence on the First Nation.

There are no other federal lands, national historic sites, or federally-protected environmentally sensitive areas in the project area.

3.3.3.2 Traditional Use Areas

In June, 2011, the Government of Manitoba designated the Asatiwisiipe Aki Land Use Planning Area as for Poplar River First Nation (Figure 1) through a regulation under *The East Side Traditional Lands Planning and Special Protection Areas Act (Manitoba)*. This planning area was identified in the Asatiwisiipe Aki Management Plan developed by the community (Poplar River First Nation, 2011). The Asatiwisiipe Aki Land Use Planning Area coincides with the Poplar River Trapline District and is the area currently used for traditional purposes by PRFN members. A key planning goal for this area is to “protect natural landscapes and ecological processes... while allowing traditional use of the land...” (Poplar River First Nation, 2011). The northern portion (44km) of the P4-ASR alignment crosses this area. The Asatiwisiipe Aki Land Use

Planning Area specifically accommodates the road and incidental activities such as quarries, borrow areas, and construction laydown and camp areas.

To date, Berens River First Nation has neither identified, nor requested legal designation of a similar land use planning area and is proceeding with land management planning under the Wabanong Nakaygum Okimawin (WNO) program (Haugh, 2014). However, the southern portion of the alignment passes through the identified Berens River Trapline District which is currently used for traditional purposes by Berens River community members.

Other First Nations on the East Side who have traditional land use planning areas recognized in provincial legislation and adjacent to the areas of traditional use for BRFN and PRFN are: Bloodvein First Nation; Pauingassi First Nation, and Little Grand Rapids First Nation. The land use planning areas recognized for each First Nation represent the areas of current traditional use for each respective community, and are agreed upon among the respective signatory First Nations (Poplar River First Nation, 2011). None of these areas overlap with the Berens River Trapline District, or the area identified in PRFN's Asatiwisipe Aki Management Plan (Lands Branch, 2014). None of these areas are in the vicinity of the proposed alignment.

There are no Treaty Land Entitlement (TLE) lands in the project area.

3.4 Land and Water Use

Land use in the area of the proposed all-season road consists mainly of traditional activities by Poplar River and Berens River First Nations, such as hunting, trapping, fishing, camping, timber harvest for firewood, recreation activities, sacred/ceremonial use, and food and medicine gathering. A winter road extends north from the Berens River Northern Affairs Community to the Poplar River First Nation. A transmission line also extends north from Berens River First Nation to Poplar River First Nation, east of the proposed P4-ASR for most of the alignment. Once completed, the proposed P4-ASR will replace the existing winter road segment between the two communities.

The P4-ASR will be constructed on provincial Crown land. It will be owned by the Province of Manitoba, and operated as part of the provincial all-season road network (The CAR proposed on Poplar River First Nation reserve land will be owned by the First Nation).

Apart from the winter road and transmission line, the land is undeveloped.

3.4.1 Zoning Designations

The Asatiwisipe Aki Land Use Planning Area contains a zoning plan developed by Poplar River First Nation. The zoning plan designates protected areas on islands in Lake Winnipeg and two areas on land. The land-based zones are 1) Protected Area; and 2) Community Resource Area. The zoning plan also designates two access corridors within those areas: 1) Winter Road Access Corridor Area; and 2) All Season Road Access Corridor Area (Figure 1).

The main purpose of the Protected Area is to protect natural landscapes and ecological processes while allowing traditional use of the land and recreational uses where approved by a local management board (Poplar River First Nation, 2011). Therefore, logging, mining, oil and gas development, and hydro development are prohibited in the area. The Community Resource Area has a similar purpose and prohibitions, while allowing for future local use of resources, including gravel extraction, airstrip development, community logging and sawmill development. The Community Resource Area also accommodates the Winter Road Access corridor, and the

community transmission line. The All Season Road Access Corridor traverses both the Community Resource Area and the Protected Area. The Corridor Area anticipates and specifically allows for the establishment of an all-season road, and associated activities related to the road, subject to final negotiations with Poplar River on the alignment.

There are no zoning designations south of the Asatiwisipe Aki Land Use Planning Area in the project area.

3.4.2 Legal Description

The township and ranges partially traversed by the P4-ASR alignment are located east of the first principal meridian and are:

- 39-5 E1
- 40-5 E1
- 41-5 E1
- 42-5 E1
- 43-5 E1
- 43-4 E1
- 44-5 E1
- 44-3 E1
- 45-3 E1
- 45-2 E1
- 46-2 E1

Due to the length of the road, and the number of sections traversed by the alignment, only township and range are identified here. A digital shapefile with the proposed alignment will be provided to regulators with this Project Description.

The Provincial Crown owns mineral and quarry rights to all provincial land not otherwise withdrawn by Ministerial Order.

Approximately 44 kilometres of the alignment traverses the Asatiwisipe Aki Traditional Land Use Planning Area, established by regulation in 2011 (MR 77/2011). The planning area replaced the previously designated Nanowin/Poplar River Park Reserve, where mineral rights had been withdrawn by Ministerial Order. After the establishment of the Planning Area, the park reserve designation was repealed in 2012 (MR 23/2012). Although the land is no longer designated as a park reserve, the All-Mineral Rights Withdrawal Order is currently still in place for that area, awaiting further legislative amendment. Notwithstanding that, the Asatiswisipe Aki Ma Ma Wichitowin Mutual Land Relationship Board has agreed that quarries may be established for the purpose of constructing and maintaining an all season road in the zoned corridor, as identified in the Planning Area Regulation (Haugh, 2014).

3.4.3 Land/Water Use, Resource Management and Conservation Plans

As noted previously (s. 3.1.5.2), the northern portion (from approximately km 50) of the proposed P4-ASR alignment is located within the Poplar River Land Use Planning Area designated under provincial regulation in 2011 (MR77/2011). Before being signed into law, the regulation was subject to public review. The Planning Area identified in regulation is based on the Poplar River First Nation's *Asatiwisipe Aki Management Plan* (Poplar River First Nation, 2011), which was developed through an open, community-based planning process, with review and input by Poplar River First Nation elders, youth, resource-users, and the general

community. The plan aims to protect natural landscapes and ecological processes, and allow traditional use of the land throughout the area. The plan designates a corridor for the construction of an all-season road, subject to final negotiations with Poplar River First Nation on alignment, and allows for quarry development for community use. The borders of this land use area essentially coincide with the previously established Poplar/Nanowin Rivers Park Reserve. After formal designation of the Poplar River Land Use Planning Area, the Government of Manitoba removed the designation for the Park Reserve (Regulation 23/2012) in 2012.

The southern portion of the alignment (km 0 to km 50) falls within the Berens River Trapline District. This is not a planning area designated by provincial Regulation.

Other First Nations on the East Side who have traditional land use planning areas recognized in provincial legislation and adjacent to the areas of traditional use for BRFN and PRFN are: Bloodvein First Nation; Pauingassi First Nation, and Little Grand Rapids First Nation. The areas of traditional use identified in these plans for these groups do not overlap with the Berens River Trapline District, or the area identified in PRFN's *Asatiwisiipe Aki Management Plan* (Lands Branch, 2014).

There are few significant industrial or commercial uses of the land along the alignment, or in the traditional area in the vicinity of the alignment. There are various mines and mineral exploration licences and occasional casual quarry permits (annually-issued), or leases within the area (Joro, 2014). Most economic activity is centred around the fishing industry which is largely carried out on Lake Winnipeg (Smith et al. 1998). It also includes trapping, and licensed hunting for moose (subject to closure by Manitoba Conservation and Water Stewardship), black bear, and game birds.

Commercial trapping of furbearers is administered by MCWS through the Registered Trapline (RTL) system. There are ten RTLs that intersect the vicinity of the alignment (Joro, 2014).

There are recreational canoe routes within the project area: Little Grand Rapids (connects Poplar River, Berens River, and Little Grand Rapids and continues into Ontario), and Kautiunigan (connects Berens River and Bloodvein and continues into Ontario) (Joro, 2014).

West of the proposed alignment (varying in distance from approximately 1-10 km), there is a corridor for the winter road, extending north from the Berens River Northern Affairs Community to the Poplar River First Nation. The winter road provides seasonal access between January and March. A power transmission line is located further west of the winter road corridor. Both the transmission line and winter road corridor are accommodated within the *Asatiwisiipe Aki Management Plan*.

3.4.4 Lands/Resources Used for Traditional Purposes

Currently, local people from Berens River First Nation and Poplar River First Nation, and Berens River Northern Affairs Community use the project area for traditional activities including travel routes, fishing, hunting, trapping, camping, harvesting plants, timber harvest for firewood, recreation activities, and sacred/ceremonial use.

Engagement on the road alignment and traditional, cultural and spiritually sensitive areas has been an ongoing process between the MFESRA and First Nations community members. Information on traditional use areas as well as environmentally sensitive areas has been provided by community members or community elders and leaders, through traditional

knowledge workshops, interviews, and community meetings. In response to information provided on specific use areas, MFESRA has adjusted the alignment in the planning process (see Map 7, and Section 6).

Although the proposed alignment for the P4-ASR passes through lands used for traditional purposes by PRFN and BRFN, both communities have considered the alignment in planning and decision-making. PRFN has specifically designated an all-season road access corridor in its community-developed, and provincially recognized, Asatiwisipe Aki Land Use Planning Area. Both PRFN and BRFN have passed Band Council Resolutions allowing for ongoing investigations along the proposed alignment (Attachments 1 & 2), in support of the proposed alignment and current planning.

Aboriginal residents (First Nation or Métis) of the Berens River Northern Affairs Community may also use part of the project area for traditional purposes. A Traditional Knowledge and Land Use Study conducted by the Manitoba Metis Federation for the P1 project (All-Season Road from PR304 to Berens River First Nation) indicated some Metis harvest of large animals in the area immediately north of the Northern Affairs Community, west of the current alignment, since the 1990's (Manitoba Metis Federation, 2011). No other current use by Métis persons in the vicinity of the P4-ASR alignment was identified in that study.

The proposed P4-ASR area is not anticipated to be used by members of other First Nations on the east side of Lake Winnipeg, who practice traditional resource use in their own, similarly designated Land Use Planning Areas.

4 FEDERAL INVOLVEMENT

4.1 Financial Support

The total cost for construction and operation of the proposed P4-ASR will be supplied by the Manitoba Government. There is no proposed or anticipated federal financial support for the project at this time.

Funding for the CAR is anticipated to be provided by the Government of Canada and the completed road will be an asset of the First Nation. This project is not part of the designated project.

4.2 Federal Land

No federal land will be used for the purpose of carrying out the designated project, including no granting of interest in federal land through easement, right of way, or transfer of ownership. The P4-ASR will extend north from the P1 junction with the English Rapids Road, east of Berens River First Nation, and extend to the boundary of Poplar River First Nation.

At the boundary, the 410 m CAR will be separately proposed on reserve land, to connect to the existing community road network. MFESRA is not the proponent of that road.

4.3 Regulatory Requirements

Potential federal and provincial requirements for environmental assessment were identified in Section 1.4. Other permits or authorizations that may be required to carry out the project are identified below.

4.3.1 Explosives Act

If required, licences for storage of explosives at non-quarry worksites will be sought from Natural Resources Canada under *The Explosives Act* (Storage of explosives for quarries permitted under the *Manitoba Mines and Minerals Act* requires provincial licensing).

4.3.2 Navigation Protection Act

On April 1, 2014, the *Navigable Waters Protection Act* was replaced by the *Navigation Protection Act*. Under the “opt-in” provisions of this new Act, MFESRA will apply to Transport Canada for the assessment and potential approval of proposed works on non-scheduled watercourses including the Berens River, the Etomami River, the North Etomami River, and the Leaf River. There are no scheduled watercourses affected by the project.

4.3.3 Migratory Birds Convention Act, 1994

MFESRA will ensure that provisions of the *Migratory Birds Convention Act, 1994* are adhered to as part of the environmental assessment carried out on the proposed All Season and Community Access Road projects. Any measures required to mitigate the effects of the proposed project on migratory birds will be implemented as part of MFESRA environmental protection measures.

4.3.4 Fisheries Act

Fish or fish habitat, as defined under the *Fisheries Act*, may be impacted during construction of stream or river crossings. Notifications or Authorizations under s. 35(2) may be required. Works over major waterways may potentially harm fish that are part of an Aboriginal fishery, as well as fish that are part of a commercial and recreational fishery (by virtue of connectivity to Lake Winnipeg), MFESRA will provide the Department of Fisheries and Oceans with project information for its review and decision on whether Authorizations will be required.

4.3.5 Indian Act

No approvals under the *Indian Act* are required for the P4-ASR (The proposed CAR located on reserve lands on Poplar River First Nation will require Construction Permits under Section 28(2) of the Indian Act).

4.3.6 Crown Lands Act (Manitoba)

MFESRA will seek authorizations for the work to proceed on provincial work permits required under *The Crown Lands Act* for work associated with road construction, including vegetation removal, quarry development and camp development on provincial Crown lands.

4.3.7 Mines and Minerals Act (Manitoba)

Casual quarry permits required under Subsection 133(1) of *The Mines and Minerals Act* will be sought prior to any quarry development on provincial Crown Lands.

4.3.8 Other (Manitoba)

Burning Permits required under Section 19(1) of *The Wildfires Act* will be sought as needed. Contractors will be required to obtain permits for petroleum storage tanks over 5,000 L on Crown land will be required under *The Dangerous Goods Handling and Transportation Act* (Storage and Handling of Petroleum Products and Allied Products Regulation) and Environment Act Licences for batch plants. Licenses for storage of explosives for quarries permitted under *The Mines and Minerals Act* will be sought as required, in accordance with regulations under *The Workplace Safety and Health Act*. Any required permits for environmental investigations such as wildlife investigations will be acquired under the *Manitoba Wildlife Act* and archeological investigations under the *Heritage Resources Act*. As required, other permits and approvals will be acquired under the *Forest Act*.

5 ENVIRONMENTAL DESCRIPTION

5.1 Biophysical Setting

For the purposes of this section, this project description will primarily focus the environmental description on a study area 5 km on either side of the proposed P4-ASR alignment. (Map 6).

The proposed all-season road Project is located within the Berens River (370) Ecodistrict and the Wrong Lake (371) Ecodistrict, within the Lac Seul Upland Ecoregion of the Boreal Shield Ecozone (Smith et al. 1998; Joro, 2014).

5.1.1 Climate and Air Quality

The closest weather station to the southern terminus of the P4-ASR is the Berens River station located 11 km west (Climate ID 5030203). The closest weather station to the northern terminus is 38 km away on George Island in Lake Winnipeg (Climate ID 5030984). The communities experience warm summers and cold winters, with daily averages ranging from 18°C in July to -19°C in January. The average annual precipitation is 470 mm, with roughly one quarter falling as snow. The average frost-free period ranges from 90 to 130 days (Government of Canada, 2014).

Air quality data has not been collected for this Project. There are no current industrial activities that would be expected to significantly affect air quality in the region of the proposed P4-ASR resulting in good air quality. The air quality may be temporarily degraded due to forest fires.

5.1.2 Physiography and Surficial Geology

The bedrock geology of the east side of Lake Winnipeg consists of Precambrian rock (2.7 to 3 billion year old). Along the western portion of the project area bordering Lake Winnipeg, the physiography is mostly level, extensively peat-covered lowland, broken by small to large uplands of Precambrian rock outcrops thinly covered by glaciolacustrine sediments. Drainage is poor to very poor due to the low relief and the widespread occurrence of deep and shallow peatlands. Lakes are few and of limited area, and most surface waters are associated with the pools found in the peatland-dominated terrain. Most of the soils are a complex of poorly to very poorly drained deep and shallow organic soils, overlying clayey to loamy glaciolacustrine sediments in the peatlands. (Smith et al. 1998)

Moving east, the physiography transitions to more sloping outcrops of bedrock, which may also be covered by clayey and silty glaciolacustrine sediments. The amount of terrain covered by

organic deposits decreases from west to east. Extensive areas have soils developed on peat composed of brown mosses and sedges (horizontal and ribbed fens). Significant areas of very poorly drained deep and shallow Mesisols and Fibrisols overly loamy to clayey glaciolacustrine sediments in the peatlands. Poorly drained Gleysols in the lowlands, and moderately well drained Gray Luvisols in the upland areas are found. The use of soils on till deposits is severely constrained due to lack of rooting depth to bedrock, excess stones and coarse surface textures, poor water-holding capacity and nutrient (Smith et al. 1998).

5.1.3 Vegetation and Forest Cover

The P4-ASR is located within the Manitoba Lowlands (B15) Forest Section on the east shore of the lake, and the Nelson River (B21) Forest Section further west. Both are within the Boreal Forest Region of Canada (Rowe 1972; Joro, 2014).

In general, the land is flat, low-lying, and poorly-drained, with forest patches of black spruce (*Picea mariana*) interspersed with tamarack (*Larix laricina*), occurring with intervening swamps and meadows. Where drainage is better, in alluvial areas bordering creeks and rivers, or along low ridges, white spruce (*Picea glauca*), tends to dominate, with some trembling aspen (*Populus tremuloides*), and balsam poplar (*Populus balsamifera*), white birch (*Betula papyrifera*) and balsam fir (*Abies balsamea*) (Joro, 2014). Where fire has spread in these areas, or other natural disturbances such as insects and diseases, and seasonal flooding, the forest cover is fragmented and supports succession species. (Rowe, 1972; Poplar River First Nation, 2011.)

Bogs and fens occur on poorly drained sites. Poorly drained fens have sedge and brown moss vegetation and may have a shrub layer, or support a tamarack-dominated tree cover. Poorly drained bogs generally support stands of stunted to medium black spruce, with an understory of dwarf birch, shrubs, and moss ground cover (Smith et al., 1998; Joro, 2014).

A complete listing of the Manitoba Conservation Data Centre listed flora for the Lac Seul Upland Ecoregion is provided in Appendix A.

5.1.4 Surface Water

The surface waters in the project area drain west as part of the Lake Winnipeg Basin, within the Nelson River watershed. Drainage occurs from several rivers and tributary streams.

The proposed P4-ASR alignment will cross four larger rivers in the basin: the Berens River, Etomami River, North Etomami River, and the Leaf River. The P4-ASR and CAR will end immediately south of the existing road network on the PRFN, where bridge access over the Poplar and Franklin Rivers is already in place. Smaller streams in the project area are often part of boreal wetlands such as bogs and fens that drain local areas into larger creeks, rivers or lake, and are usually less than one metre in depth.

The nearest Water Survey of Canada hydrometric station is a lake station (Lake Winnipeg at Berens River-Station 05RD005 MB). The nearest station that is not located on Lake Winnipeg (which is highly regulated) indicates an expected seasonal variation in discharge. Flow begins to increase in March to April, typically peaks in June, and reaches a winter base flow in the fall (Weaver Lake at Outlet – Station 05RE002 MB).

Water quality data were not found for any rivers in the vicinity of the alignment (SNC-Lavalin 2009). However, the area drained is essentially subject only to natural disturbance (Poplar River First Nation, 2011).

5.1.5 Groundwater

The demand for groundwater in the physiographic region is low as surface water is abundant, and consequently, there is little known about the distribution of aquifers, their yield, or water quality. Supplies of ground water are available from Precambrian crystalline igneous and metamorphic rocks and from sand and gravel materials in the overlying Quaternary sediments (Betcher et al. 1995). Unfractured crystalline igneous and metamorphic rocks typically have low hydraulic conductivity. Movement of ground water commonly occurs through secondary permeability features such as faults, sheers or joints. The zone of groundwater circulation is thought to occur in the upper 60 to 150 m of bedrock where some features (joints) are more common. Where records exist in the southeastern Precambrian Shield, more than 80% of wells indicate yields less than 1.0 L/s. An estimate of the groundwater recharge rate in granitic bedrock is less than 5 mm/yr (Betcher et al. 1995). In bedrock terrain, groundwater generally contains solutions of low dissolved solids, developed from unequal dissolution of aluminosilicate minerals. Dominant dissolved constituents typically include sodium, calcium, magnesium and bicarbonate; chloride and sulphate have lower concentrations (Betcher et al. 1995).

As the development of groundwater in the region is limited as a consequence of low demand, uncertainty, and costs of bedrock drilling, sand and gravel aquifers provide a cost effective alternative where they occur. In addition, groundwater potential in the Precambrian Shield remains largely unexplored, but a good understanding of the distribution of Quaternary sediments exists and can serve as a model for groundwater exploration throughout the region (Betcher et al. 1995). Although surficial aquifers are scattered and local in nature, yields from most wells is small. In these sand and gravel aquifers, recharge is from rain and snow melt, and the water quality tends to be excellent. Total dissolved solid concentrations in deep aquifers may exceed 1000 mg/L (Betcher et al. 1995).

5.1.6 Fish and Fish Habitat

Fish species present in the local area are representative of species typically found in the boreal shield and include Walleye, Sauger, Northern Pike, Lake Whitefish, Lake Trout and Lake Sturgeon (Davidson-Hunt 2012). A number of the species (particularly Walleye and Lake Whitefish) support commercial fisheries on Lake Winnipeg and subsistence fisheries for Poplar River and Berens River.

Waterbodies in the vicinity of the proposed P4-ASR include several small streams, and medium and large rivers. The smaller streams may be used as spawning and nursery areas by larger fish species (e.g., northern pike) in spring, while smaller forage species such as minnows and stickleback may utilize the streams through the summer if water volume is adequate. Due to shallow depths and low winter flows, small streams generally provide little or no over-wintering habitat. Moderate sized streams may provide spawning habitat for larger fish such as suckers and Northern Pike.

For the remainder of the year, these streams may be utilized as a nursery for young fish, as well as providing habitat for various species of minnows, darters, sticklebacks and sculpins. Over-wintering of smaller fish in these types of streams will often occur when deeper pools are available.

Large river systems, such as the Berens River, Etomami River, Leaf River, and Poplar River, provide year-round habitat for large numbers of fish species. Due to perennial flows they may support both spring and fall spawning species.

Small boreal wetlands areas also occur within the local area. These habitats are generally not connected to fish bearing waters and typically become anoxic during winter. A few species of small-bodied fish that are tolerant of low oxygen levels may persist in these wetlands, but most are typically devoid of notable fish populations.

5.1.7 Mammals

Wildlife species typical of this area include American Marten (*Martes americana*), American Mink (*Neovison vison*), Beaver (*Castor canadensis*), Black Bear (*Ursus americanus*), Boreal Woodland Caribou (*Rangifer tarandus*), Ermine (*Mustela erminea*), Fisher (*Martes pennanti*), Grey Wolf (*Canis lupus*), Least Chipmunk (*Eutamias minimus*), Lynx (*Lynx canadensis*), Moose (*Alces alces*), otter (*Lontra canadensis*), Red Squirrel (*Tamiasciurus hudsonicus*), Snowshoe Hare (*Lepus americanus*), Southern Red-backed Vole (*Clethrionomys gapperi*), and Wolverine (*Gulo gulo*) (Joro, 2014; Poplar River First Nation, 2011).

Black bears are found across most wooded habitats and are relatively common through northern forests of Manitoba. They are plentiful in the vicinity of the P4-ASR, and are important given their predator/prey relationship in the ecosystem. They are also hunted under provincial licences issued by Manitoba Conservation and Water Stewardship (MCWS) and held by outfitters for foreign resident bear hunts.

The Boreal Woodland Caribou is listed as “Threatened” on Schedule 1 of the *Species at Risk Act* (COSEWIC, 2002) and as “Threatened” under Manitoba’s *The Endangered Species and Ecosystems Act*. Boreal Woodland Caribou require large, continuous tracts of undisturbed habitat, especially during critical calving and rearing periods. They generally inhabit mature to old growth boreal coniferous forests with an ample supply of lichen, as well as peatlands. The Atikaki-Berens range of caribou is the only one that occurs within the vicinity of the alignment (Joro, 2014). Manitoba Conservation and Water Stewardship released a draft recovery strategy in April 2014 listing the Atkaki-Berens range as having a medium Conservation status assessment (Manitoba Conservation and Water Stewardship, 2014). The recovery strategy released by *Environment Canada* in 2012 lists the Atikaki-Berens range as having a stable and self sustaining population (Environment Canada, 2012).

Grey wolves are present, and tend to inhabit forested areas with sufficient prey species, such as caribou, moose, beaver, and snowshoe hare (Joro, 2014). Wolves can be hunted under any big game license.

Moose are common within the vicinity of the P4-ASR, and are found in swampy areas with aquatic plants, and willows, which make up the majority of their diet. They are highly valued by for licensed and subsistence hunting, and are integral component of the ecosystem due to their predator/prey relationship. Moose populations are not a conservation concern in the P4 area at this time, though population sustainability is a specific concern in other Game Hunting Areas in eastern Manitoba (Joro, 2014).

White-tailed deer may be present in the local area, though their range is generally limited to areas further south due to harsh winter conditions and limited food supply. They tend to inhabit both woodlands and open areas, which are used for both cover and forage (Joro, 2014).

Furbearers in the area, such as beaver and muskrat are important for socio-economics, and also food (as are hare and spruce grouse). Ermine, fisher, marten, mink, otters, red fox (*Vulpes vulpes*), and red squirrel are known to be trapped for their furs in the area. They tend to inhabit

mature coniferous or mixed wood forests, and feed on conifer seeds. Mink also inhabit areas along streams and lakes, and wooded cover. Otters are found in or near lakes, streams, rivers, and swamps, and feed on fish, frogs, and crayfish (Joro, 2014; Poplar River First Nation, 2011).

Other species of small mammals within their natural range in the vicinity of the P4 alignment include Least Weasel (*Mustela nivalis*), Little Brown Myotis (*Myotis lucifugus*), Masked Shrew (*Sorex cinereus*), Meadow Jumping Mouse (*Zapus hudsonius*), Northern Bog Lemming (*Synaptomys borealis*), Porcupine (*Erethizon dorsatum*), Pygmy Shrew (*Sorex hoyi*), Raccoon (*Procyon lotor*), Short-tailed Shrew (*Blarina brevicauda*), Silver-haired Bat (*Lasionycteris noctivagans*), Striped Skunk (*Mephitis mephitis*), and Woodchuck (*Marmota monax*). (Joro, 2014)

A listing of known mammals in the project area is presented in Appendix B.

5.1.8 Birds

The proposed all-season road Project is located within the natural ranges of 216 native bird species including species of waterfowl, upland birds, eagles, hawks, owls and passerine birds. Approximately 170 bird species breed within the region but only about 15% of all bird species present in the area are resident year round (Davidson-Hunt et al. 2012).

Bird species present in the Local Project Study Area include Bald Eagle (*Haliaeetus leucocephalus*), Common Nighthawk (*Chordeiles minor*), Gray Jay (*Perisoreus canadensis*), Great Horned Owl (*Bubo virginianus*), Herring Gull (*Larus argentatus*), Northern Hawk Owl (*Surnia ulula*), Olive-sided Flycatcher (*Contopus cooperi*), Osprey (*Pandion haliaetus*), Raven (*Corvus corax*), Red-tailed Hawk (*Buteo jamaicensis*), Sharp-tailed Grouse (*Tympanuchus phasianellus*), Short-eared Owl (*Asio flammeus*), Spruce Grouse (*Falciapennis canadensis*), Willow Ptarmigan (*Lagopus lagopus*), among others (Joro, 2014).

Geese, ducks, and other waterfowl are seasonally hunted. The Environmental Impact Statement for Project 1 (PR 304 to Berens River), which will connect to the proposed P4-ASR, indicated that, with the exception of Canada Goose, the habitat is considered low quality for nesting waterfowl, which tend to prefer marsh environments, and not the fens and bogs more common for this alignment. The exception to this would be the habitat along the larger rivers, which provide better forest habitat for a variety of bird species (SNC-Lavalin, 2010). This would be expected to be similar for P4-ASR at Berens River, and to a lesser extent at the other bridge crossing sites (Etomami, North Etomami, and Leaf Rivers).

Bald Eagles can be found in most of Manitoba and in the project area. They nest in tall shoreline trees along lakes, rivers, and open areas, and feed on waterbirds, small mammals, fish and carrion (Joro, 2014). They are considered culturally important to the First Nations (Poplar River First Nation, 2011). Eagles are currently listed as 'not at risk' under the *Species at Risk Act* (SARA).

Osprey can also be found in the project area. Their habitat is located along slow flowing rivers, streams as well as lakes where they nest in tall trees. Their diet consists mostly of fish. The short-eared owl summer range extends into the project area.

The range of the Olive-sided Flycatcher overlaps with the alignment area. These birds inhabit semi-open mixed and coniferous forests near water, or in burned areas and boggy sites with standing dead conifers. The Common Nighthawk may be found within the alignment area.

They inhabit open and semi-open habitat such as forest gaps, meadows, and lakeshores. Both the Olive-sided Flycatcher and the Common Nighthawk are listed as “Threatened” under SARA (Schedule 1).

Other SARA-listed species (Schedule 1) that may be found in the vicinity of the P4-ASR include the Eastern Whip-poor-will (*Caprimulgus vociferous*) and the Canada Warbler (*Cardellina canadensis*) (both listed as ‘Threatened’) and the Rusty Blackbird (*Euphagus carolinus*) and Yellow Rail (*Coturnicops noveboracensis*) (both listed as “Special Concern”).

A listing of known bird species within the project area is presented in Appendix C.

5.1.9 Amphibians and Reptiles

The ranges of the Western Painted Turtle (*Chrysemys picta bellii*) and Snapping Turtle (*Chelydra serpentina*) overlap with the local area (Joro, 2014). Both turtles prefer shallow, permanent waterbodies, with muddy bottoms, such as lakes, ponds, rivers and streams. The Snapping Turtle is a “Species of Special Concern” under SARA.

The range of the Red-sided Garter Snake (*Thamnophis sirtalis parietalis*) extends into the project area. They prefer woodland environments and margins of ponds. They often hibernate within crevices in upland areas, but there are no documented hibernacula within the local area (Joro, 2014)

Frogs and toads also occur within the area. They generally require shallow ponds for breeding and moist environments in shrubby and wooded areas for the rest of the year. Species that may occur in the area include: American Toad (*Bufo americanus*), Boreal Chorus Frog (*Pseudacris triseriata maculata*), Northern Spring Peeper (*Hyla crucifer crucifer*), Northern Leopard Frog (*Rana pipiens*), and Wood Frog (*Rana sylvatica*) (Joro, 2014).

A listing of known amphibians and reptiles that can be found within the project area is presented in Appendix D.

5.1.10 Species of Conservation Concern

The term "species of conservation concern" includes species that are rare, disjunct, or at risk throughout their range or in Manitoba and in need of further. These species are listed by the Manitoba Conservation Data Centre (MBCDC) as very rare to uncommon research (MBCDC website). The term “species of conservation concern” also encompasses species that are listed as Species at Risk under *The Endangered Species Act of Manitoba* (MBESA), the *Species at Risk Act* (SARA) or that have a special designation by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC).

The MBESA was enacted to protect and enhance the survival of threatened and endangered species in Manitoba, to enable reintroduction of extirpated species into the province, and to designate species as threatened, endangered, extirpated, or extinct. At the federal level, the *Species at Risk Act* is intended to protect wildlife species at risk in Canada. Within the Act, COSEWIC was established as an independent body of experts responsible for identifying and assessing wildlife species considered at risk. Wildlife species that have been designated by COSEWIC may then qualify for legal protection and recovery under the *Species at Risk Act*.

Species are evaluated and ranked by the Conservation Data Centre on the basis of their range-wide (global - G) status, and their province-wide (subnational - S) status according to a

standardized procedure used by all Conservation Data Centres and Natural Heritage Programs. These ranks are used to determine protection and data collection priorities, and are revised as new information becomes available. For each level of distribution - global and provincial - species are assigned a numeric rank ranging from 1 (very rare) to 5 (demonstrably secure). This reflects the species' relative endangerment and is based primarily on the number of occurrences of that species globally or within the province (Manitoba Conservation Data Centre website).

Information from the Manitoba Conservation Data Centre for species of concern for the Lac Seul Upland Ecoregion, which encompasses the east side of Lake Winnipeg region, is included in Appendix E. Records for the ecoregion include three animal assemblages, 57 vascular plants and 19 vertebrate animals.

5.1.10.1 Vegetation

No plant species listed under the MBESA, SARA or COSEWIC are known to occur in the local area. However, the Flooded Jellyskin (*Leptogium rivulare*), a small foliose lichen, listed federally under SARA, is known to occur in the Mixedwoods Plain and Boreal Shield Ecozones (COSEWIC 2004) and could potentially be present. It mostly prefers growing on bark of living hardwood tree species and always below the high water mark on periodically inundated substrate.

5.1.10.2 Fish

Currently the MBESA lists one aquatic species-at-risk, Mapleleaf Mussel (*Quadrula quadrula*), and SARA recognizes two aquatic species-at-risk with distributions that extend into the Lake Winnipeg East drainage area; the Shortjaw Cisco (*Coregonus zenithicus*) and Mapleleaf Mussel. Although not protected under SARA, Lake Sturgeon (*Acipenser fulvescens*) is designated as Endangered by COSEWIC (COSEWIC 2006). In Canada, Lake Sturgeon populations have been greatly affected by human activities and the species is currently under consideration for listing under SARA. Although they are not legally protected, the potential presence of sturgeon within the region will be assessed in consideration of potential future listing under SARA.

The Shortjaw Cisco is listed as Threatened under SARA. In Manitoba, distribution is believed to be restricted to large, deep lakes, including Lake Winnipeg. There are no records of this species from riverine habitats in Manitoba. Their preferred spawning habitat is unknown. Shortjaw Cisco has not been documented within streams in the area of the all-season road Project and their preferred habitat is not present on route; as a result, no risk to the species is expected.

The Mapleleaf Mussel is listed as Endangered under SARA and MBESA. The species may be found in medium to large rivers with slow to moderate currents and firmly packed sand, coarse gravel or clay/mud substrate. On the east side of Lake Winnipeg, the published range of the species extends as far north as the Bloodvein River, south of the P4-ASR project area.

The Lake Sturgeon inhabits larger lakes and rivers and they are typically benthic and most often found over sand substrates. They spawn in fast moving water, such as rapids or at the base of falls. Sturgeon have been reported in the lower Berens River where Lake Winnipeg populations of this species ascend the river to access suitable spawning areas.

5.1.10.3 Amphibians and Reptiles

There are two species of amphibians found in Manitoba that are listed as Special Concern under SARA: the Northern Leopard Frog (*Lithobates pipiens*) (Western Boreal / Prairie populations) and the Great Plains Toad (*Anaxyrus boreas*). Only the Northern Leopard Frog (Eastern population) is found in the boreal forest, east of Lake Winnipeg and not at risk under SARA. There are no amphibians found in the local area that are listed under the MBESA.

There are two species of reptiles in Manitoba that are listed under SARA. The Eastern Snapping Turtle (*Chelydra serpentina serpentina*) is listed as Special Concern, and is known to occur in southeastern Manitoba. The Eastern Snapping Turtle is also ranked as uncommon (S3) by the MBCDC.

5.1.10.4 Mammals

The Boreal Woodland Caribou (*Rangifer tarandus caribou*) is listed as Threatened under SARA, MBESA and COSEWIC, and is known to occur within the local area. MFESRA is currently working to identify the movement patterns of caribou through the region to identify potential interactions with activities related to the proposed Road Project.

The Wolverine is listed as Special Concern under COSEWIC and may be found in the region (western population). The star-nosed mole (*Condylura cristata*) is ranked as an uncommon species in the ecoregion (S3) by the MBCDC.

5.1.10.5 Birds

Six bird species that are listed by SARA and COSEWIC are known to occur in the local area. Threatened species include the Olive-sided Flycatcher, Common Nighthawk, Canada Warbler and the Whip-poor-will. The Rusty Blackbird and Yellow Rail are listed as Species of Special Concern. Three species are listed by MBESA and include common Nighthawk and Eastern Whip-poor-will which are Threatened, and the Canada Warbler which is Endangered. The Horned Grebe (*Podiceps auritus*) and Short-eared Owl (*Asio flammeus*) are noted as Special Concern by SARA, while the Barn Swallow (*Hirundo rustica*) is noted as Threatened (SARA and COSEWIC) and may occur in the area.

Five other species ranked by the MBCDC as species of conservation concern may occur in the local area and include the Great Blue Heron (*Ardea herodias*), Barred Owl (*Strix varia*), Trumpeter Swan (*Cygnus buccinator*), Northern Parula (*Parula americana*) and Double-crested Cormorant (*Phalacrocorax auritus*).

5.2 Potential Changes in the Environment

Potential effects of the proposed P4-ASR and the CAR on the environment will be identified, assessed and mitigated in the Environmental Impact Statement (EIS). The EIS will consider direct and indirect environmental effects, residual environmental effects after the application of mitigation measures, and cumulative environmental effects. MFESRA's environmental protection specifications and best management practices will be implemented during construction and operation and maintenance.

Changes to fish and fish habitat, and migratory birds are described below.

5.2.1 Fish and Fish Habitat

As defined in the *Fisheries Act* (s. 2), “fish” includes:

- (a) parts of fish,
- (b) shellfish, crustaceans, marine animals and any parts of shellfish, crustaceans or marine animals, and
- (c) the eggs, sperm, spawn, larvae, spat and juvenile stages of fish, shellfish, crustaceans and marine animals.

“Fish habitat” means:

spawning grounds and any other areas, including nursery, rearing, food supply and migration areas, on which fish depend directly or indirectly in order to carry out their life processes;

There are four water crossings traversed by the proposed P4-ASR that will require bridges (Berens River, Etomami River, North Etomami River, and Leaf River) (Map 5), and 29 stream crossings determined to date that will require culverts. Of these 33 crossings, ten have been identified to date as habitat for large bodied and/or forage fish species. Large bodied fish species are found at the four major crossings. All bridge crossing sites are too wide to clear span the water way. One in-stream pier will be required at the Berens, North Etomami and Leaf rivers and two in-stream piers at the Etomami River. Culverts will be installed at the remaining water courses which provide habitat for fish. Critical habitat was not found at any of the water crossings. The EIS will document the assessment and evaluation of the water courses.

Fish may be impacted during construction and operation of the highway during dewatering during bridge or culvert installation. Fish may also be impacted by downstream sedimentation during construction and maintenance, or through accidents or malfunctions that could introduce deleterious substances. The road may marginally increase fishing pressure as a result of increased access to the area.

Fish habitat may be impacted by bridge or culvert installation, by removal of riparian vegetation or installation of riprap, downstream sedimentation, alteration of channel morphology and dynamics where piers may be required, and accidents or malfunctions that could introduce deleterious substances.

These changes will be avoided where possible, and mitigated or offset through implementation of MFESRA’s environmental protection specifications and best management practices, or site-specific plans.

5.2.2 Marine Plants

There are no marine plants affected by the P4-ASR. The project is inland and will have no effects on marine areas.

5.2.3 Migratory Birds

As defined in the *Migratory Birds Convention Act, 1994* “migratory bird” means:

a migratory bird referred to in the Convention, and includes the sperm, eggs, embryos, tissue cultures and parts of the bird;

Migratory birds may be impacted during construction and operation of the highway through vegetation clearance, dust, equipment noise, noise due to blasting at quarries and worksites, and vehicle collisions. Destruction of active nests will be avoided as required under the *Migratory Birds Convention Act*. The road may increase hunting pressure on certain migratory birds as a result of increased access to the area.

Migratory bird habitat may be impacted as a result of vegetation removal along the right of way or at other cleared sites (quarries, camps, and access trails) by equipment and vehicle noise during construction and operation. These effects will be avoided where possible, and mitigated through application of MFESRA's environmental protection specifications and best management practices.

5.3 Potential Changes on Federal and Adjacent Lands

The proposed P4-ASR on provincial Crown Land is not likely to have any adverse change to the adjacent Poplar River First Nation, or to the nearby Berens River First Nation. An indirect, positive socio-economic effect will be the provision of year round access to the southern all-season road network for Poplar River First Nation, and year-round access between the communities. The CAR on Poplar River First Nation is not likely to have an effect on the provincial Crown lands.

The overall Project is not likely to have an adverse effect on other federal land in Manitoba (First Nations on the east side of Lake Winnipeg), or in any province other than Manitoba.

5.4 Potential Effects on Aboriginal Peoples of Changes to the Environment

Potential effects to Aboriginal peoples as a result of changes to the environment caused by carrying out the P4-ASR will be fully considered in the environmental assessment.

Potential effects that will be considered could include effects to traditional use of lands and resources for traditional purposes by Aboriginal peoples, such as hunting, fishing, gathering, and forest-harvest, as a result of changes in land use and increased vehicle access to previously isolated areas, by both local people and non-residents. The P4-ASR could also indirectly affect traditional activities as a result of potential changes to the biophysical environment, including effects on fish and fish habitat, vegetation, and wildlife resources, which could affect harvesting patterns and/or harvesting success. Affected harvested resources could include: berries and traditional medicines; game animals (such as moose), game birds (such as geese or grouse).

The environmental assessment for the proposed P4-ASR will identify and assess potential environmental effects on Aboriginal peoples, identify mitigation measures and outline any follow-up actions that will be addressed in an environmental protection plan. In addition, the environmental assessment of the proposed all-season road Project will include an assessment of potential cumulative effects.

6 ENGAGEMENT & CONSULTATION WITH ABORIGINAL GROUPS

Engagement with Aboriginal groups (First Nations and Métis), as well as local communities and other interested stakeholders, on the development of an all-season road network on the east side of Lake Winnipeg, goes back several years (Dillon and Westdal, 2000; East Side Planning Initiative, 2004; UMA, 2005).

Considerable efforts were made to engage on the identification of a route corridor through the Large Area Transportation Initiative Study (SNC-Lavalin, 2010), and through the federal and provincial environmental assessment process for Project 1 (All Season Road from PR304 to Berens River) (SNC-Lavalin, 2009). A key focus of the Engagement Program has been to engage people who are living in the project area, who are most likely to be directly affected by the project, and who can provide information on traditional use and local knowledge with respect to the proposed all-season road projects comprising the Large Area Transportation Initiative. More recently, discussions with Poplar River and Berens River First Nations have occurred related specifically to the P4-ASR corridor.

The Engagement Program is ongoing and will continue through the construction and operation and maintenance phases of the proposed P4-ASR.

MFESRA Engagement Program activities to date with Aboriginal groups are summarized in Table 1, below.

Table 1: Summary of Engagement Program Activities with Aboriginal Groups	
Activity/Date	Description
Early East Side engagement: 2000-2005	
Community Meeting – Poplar River First Nation, 2000	Consultant-led community meeting to introduce all-weather road concept and identify concerns and priorities. (ESPI, 2004; Dillon & Westdal, 2000)
Community Meeting – Berens River First Nation, 2000	Consultant-led community meeting to introduce all-weather road concept and identify concerns and priorities. (ESPI, 2004; Dillon & Westdal, 2000)
Aboriginal Engagement for East Side Large Area Transportation Initiative	
WNO Chiefs Meeting – April 30, 2009	MFESRA meeting with chiefs from Wabanong Nakaygum Okimawin to introduce proposed Large Area Transportation Initiative
Round One Community Meetings Poplar River First Nation – April 2, 2009, December 2, 2009 Berens River First Nation and Northern Affairs Community – May 5, July 6, 2009	MFESRA meeting with community members and local leadership to inform local community members and receive input about the East Side Large Area Transportation Network Study, including the proposed P4 all-season road project.
Round Two Community Meetings Poplar River First Nation – June 2, 2010	MFESRA meeting with community members and local leadership to present findings of the preferred road alignments based on technical evaluation and to receive input from the first round of meetings
Traditional Ecological Knowledge Studies - BRFN & PRFN Spring/Summer 2009 - 2010	Studies were undertaken to gather input from local residents on the environmental, social-economic and cultural implications of the proposed all-season road.

Table 1: Summary of Engagement Program Activities with Aboriginal Groups	
Activity/Date	Description
Manitoba Metis Federation Meetings – April 1, 2009; August 18, 2009; December 9, 2009 TLUKS contract: Oct 1, 2010 – Sept 30 2012.	MFESRA meetings with MMF in Winnipeg to introduce all-weather road concept and discuss MMF interest in P1 all season road and other proposed roads. Subsequent establishment of Traditional Land Use and Knowledge Study (TLUKS) contract between MFESRA and MMF to identify Métis traditional harvest practices in the region.
MMF Workshops to support TLUKS study Winnipeg (4 people) – Feb 1, 2011 Selkirk (12 people) – Feb 3, 2011 Manigotagan (20 people) – Feb 7, 2011	Workshops with Aboriginal resource users to provide project and survey information and hear feedback on traditional use and recommendations for mitigation.
Community Benefits Agreements (CBA)	
CBA signed: Berens River First Nation - , August 19, 2009; July 25, 2013	MFESRA and BRFN sign CBA to provide economic and training benefits to BRFN via the community-owned Pigeon River Contractors, in preparation for potential all-season road pre-construction & construction activities (P1 and P4). BRFN CBA renewed in 2013.
CBA signed: Poplar River First Nation - September 13, 2010	MFESRA and PRFN sign CBA to provide economic and training benefits to PRFN via the community-owned Asatiwisipe Construction, Inc., in preparation for potential all-season road pre-construction & construction activities (P4)
Alignment Verification and Traditional Use and Values: Discussions and Decisions for P4	
Meeting with Poplar River First Nation Leadership, Winnipeg - March 3, 2011	Meeting with MFESRA, PRFN leadership, and JD Mollard to discuss preferred proximity of alignment near the Poplar River
Community Meeting with PRFN (50 people) – Feb 9, 2012	Meeting to present proposed alignment and obtain community feedback (Alignment adjusted based on community concerns)
Meeting and Follow-up letter to BRFN Chief and Council- May – July , 2012	Discussion and agreement between MFESRA and BRFN to collect baseline information and assist in route verification
Workshop with Poplar River elders and resource users (9 people) - Sept 24, 2012	Consultant-led workshop for identification of land use and occupancy within a 3 km buffer zone along the alignment within the Poplar River Land Use Planning Area (northern 55 km), as part of Heritage Resource Impact Assessment. Subsequent archaeological field investigations identified 8 heritage resource sites, and recommended mitigation where required.
Berens River Community Meeting- May 2013	Meeting between MFESRA and BRFN. Project update and alignment discussion.
Band Council Resolution – Berens River First Nation,- May 28, 2013	Berens River Chief and Council indicate support of alignment for P4-ASR, for the purposes of gathering information for geotechnical and other investigations.
Band Council Resolution – Poplar River First Nation,- December 6, 2013	Poplar River Chief and Council indicate support of alignment for P4-ASR, for the purposes of gathering information for geotechnical and other investigations.
Meetings with Asatiwisipe Aki Ma Ma Wichitowin Mutual	Meeting with Poplar River First Nation land management board – ongoing communication about the project, to seek information for route

Table 1: Summary of Engagement Program Activities with Aboriginal Groups	
Activity/Date	Description
Land Relationship Board - March 12, November 26, 2012; February 25, 2014.	selection
Anticipated Future Engagement Activities during the Environmental Assessment	
Round Three Community Meetings	Information on environmental assessment requirements. Identification and verification of valued environmental components (VEC) during environmental assessment process.
Round Four Community Meetings	Presentation of potential environmental effects and recommended mitigation to community members. Incorporate feedback into environmental assessment process.
Round Five Community Meetings	Presentation of preliminary results of the environmental assessment to community members.
Notification of Key Documents	Key documents in environmental assessment process will be made available to other First Nation and Métis groups, with a standing invitation to meet and/or comment.
Open House – Winnipeg	Information on proposed P4-ASR, including environmental assessment requirements, valued environmental components, potential effects and recommended mitigation, and preliminary results will be provided to off-reserve or other non-local Aboriginal people, stakeholders, and the general public.

The topics discussed at the meetings, workshops and open houses included:

- Introduction to the proposed all-season road Project and ongoing updates
- Presentation and discussion of road alignment options
- Presentation of project activities such as right-of-way clearing and exploratory clearing
- Training opportunities for community members
- Modification and confirmation of route alignment
- Identification of community concerns
- Traditional knowledge information for the proposed all-season road
- Introduction of baseline studies being conducted for the proposed all-season road and community involvement
- Collection of site-specific constraints from community members

Issues and comments identified by community members and the public throughout the Aboriginal and Public Engagement Program are documented and will be described and analyzed in the Environmental Impact Statement.

6.1 Interested and Potentially Affected Aboriginal Groups

Aboriginal groups that are anticipated to have an interest in, and are potentially affected by, the project include local First Nations (Berens River and Poplar River First Nations) and other Aboriginal people living in the community of Berens River Northern Affairs Community.

6.1.1 First Nations

First Nations with an interest in, and who may be affected by, the designated project are:

- Berens River First Nation, Box 131, Berens River, MB R0B 0A0
- Poplar River First Nation, Box 90, Negginan, MB R0B 0Z0

Both are Ojibway communities, and signatories to the Treaty 5 adhesion, with established rights to hunt and trap throughout the surrendered tract. These communities are located within the project area, and exercise their treaty rights within the project area.

Other First Nations that are identified through the Large Area Transportation Study area on the east side of Lake Winnipeg, with an interest in the overall initiative are:

- Hollow Water First Nation
- Bloodvein First nation
- Little Grand Rapids First Nation
- Pauingassi First Nation
- St. Theresa Point First Nation
- Wasagamack First Nation
- Garden Hill First Nation
- Island Lake First Nation
- Red Sucker Lake First Nation
- Manto Sipi First Nation
- God's Lake Narrows First Nation
- Bunibonibee (Oxford House) First Nation
- Cross Lake First Nation
- Norway House First Nation

These First Nations are also signatories to Treaty 5 (1875), or the later adhesion to Treaty 5. Though they have established treaty rights to hunt and fish throughout the Treaty 5 area, their areas of traditional use do not overlap with the study area for P4-ASR (WNO, 2007).

6.1.2 Other Aboriginal

Residents residing in the Berens River Northern Affairs Community (NAC) have participated in discussions regarding the Large Area Transportation Network for the east side of Lake Winnipeg including the P1-ASR and P4-ASR. The Berens River Northern Affairs Community (NAC) is immediately adjacent to the BRFN and includes Aboriginal people who are members of BRFN. Residents may also include non-status or people of Métis heritage.

- Community of Berens River, P.O. Box 129, Berens River, MB, R0B 0A0

Métis people may have an interest in the P4-ASR. The Manitoba Metis Federation (MMF) has been involved in discussions related to development of transportation systems on the east side of Lake Winnipeg since the East Side Planning Initiative (ESPI, 2004; WNO, 2005), the Large Area Network Study (SNC-Lavalin 2010) and the P1-ASR (PR 304 to Berens River).

- Manitoba Metis Federation, 150 Henry Ave, Winnipeg, MB R3B 0J7

In 2010, MFESRA entered into a contract with the MMF to conduct a Traditional Land Use and Knowledge Study (TLUKS) to provide information on Métis use within the regional study area of

the P1 project. This area extends north to the Poplar River, and east to the Ontario border, and includes the P4-ASR project area (Manitoba Metis Federation, 2011). The TLUKS indicated some large animal harvesting west of the project area by Métis resource users, near the southern terminus of the proposed alignment.

In 2012, the MMF partnered with the government of Manitoba to recognize Métis rights to harvest natural resources for food and domestic use in Manitoba. An agreement was reached on Métis harvesting rights in mutually agreed-to regions of the province. The recognized area includes Game Hunting Areas (GHAs) in the southern and western portions of the Province (Figure 2). The P4-ASR project area is located in GHA 17, and is not included in the recognized Métis harvesting rights area.

6.2 Engagement Activities with Aboriginal Groups

The Government of Manitoba began to engage stakeholders and Aboriginal groups on the justification for an all-weather road over a decade ago. In early, consultant-led community meetings held as part of a justification and scoping study for an all season-road (Dillon and Westdal, 2000) both Berens River First Nation and Poplar River First Nation identified a positive socio-economic benefit from such a road. Each community anticipated reduced costs for goods and services, and enhanced travel and social connections. Each community indicated the importance of local control and involvement in decisions related to an all-season road. Each community also highlighted the importance of protecting the environment, and protecting traditional uses of the land (Dillon and Westdal, 2000).

The Aboriginal and Public Engagement Program for the overall East Side Large Area Transportation Network commenced in 2009 with a first round of community meetings, and remains ongoing, with a greater focus on community to community road links. The purpose of the Engagement Program is to provide meaningful opportunities for people to receive information about the all-season road, and to provide comments about the proposed roads. An early focus was the identification of alignment corridors, supported by traditional knowledge studies, with the First Nation communities. The overall Engagement Program includes meetings with regulators, potentially affected and interested Aboriginal groups and communities and leadership, community resource boards, trappers, outfitters, other stakeholders, and the general public. Meetings and open houses have been held in communities on the east side, and in the city of Winnipeg. Information is also available through articles and advertising features in the *Grassroots News* (province-wide Aboriginal Newspaper), the MFESRA newsletter and website.

A summary of MFESRA Engagement Program Activities with Aboriginal groups is presented in Table 1. Key events, comments, and the MFESRA response are described in the sections below.

6.2.1 First Nations

The First Nation communities (and associated Northern Affairs communities) in the East Side Large Area Network were contacted during the first round of the Engagement Program in 2009. Subsequent to these meetings, First Nation communities have continued to be engaged by MFESRA with respect to the proposed projects that will connect their communities to an all-season road network.

Berens River First Nation and Poplar River First Nation are the communities who are most likely to be affected by the proposed P4-ASR because the project area includes the area of traditional

use for each community. Berens River Northern Affairs Community is also likely to be influenced by the project because of its location. During the first round of engagement activities, back-to-back leadership and community meetings were held in PRFN (April 2, and December 2, 2009), and BRFN, including Berens River Northern Affairs Community (May 5 & July 6, 2009). A second round of community meetings commenced in 2010, and a meeting was held with Poplar River First Nation (June 2, 2010). The intent of the meetings was to gather community input related to the potential effects of an all season road network on the environment and local socio-economics, and to outline various preliminary transportation route options.

Within this time frame, leadership from both First Nation communities negotiated and signed Community Benefits Agreements (CBAs) with MFESRA in preparation for pre-construction and construction of the all-season road. The CBAs provide economic and training benefits to the First Nations via community-led construction companies. BRFN signed an initial CBA on August 19, 2009 (subsequently updated and renewed, and signed on July 25, 2013). PRFN signed a CBA on September 13, 2010. The signing of the CBAs is consistent with the key objectives of the East Side Transportation Initiative, which includes provision for employment and training opportunities, and enhanced opportunities for sustainable economic development (see section 2.1). It is also consistent with the early feedback from the First Nation communities, and the clear interest from both communities in local involvement in the project (Dillon & Westdal, 2000; ESPI, 2004; UMA, 2005).

Subsequent community feedback from Poplar River First Nation resulted in further refinement of the alignment corridor. The community indicated that they did not wish the road to be visible from the Poplar River, to reduce the likelihood of disturbing traditional use of the river, and important areas along the waterway. At the request of the community leadership, the inland route was adjusted in March 2011, and moved further west of the Poplar River (Map 7).

On February 9, 2012, a community meeting to verify the alignment was held in PRFN. Further refinements to the alignment resulted (Map 7). The alignment was also moved further from Bull Lake to avoid an area of traditional significance to PRFN, and further from the Poplar River in general, to reduce wildlife disturbance (particularly to moose). MFESRA also agreed to limit intrusion into areas near the Poplar River for quarrying and other construction activities. Other meetings were held in 2012 (March 12, 2012; November 26, 2012) with Poplar River land management board (Asatiwisipe Aki Ma Ma Wichitowin Mutual Land Relationship Board) to continue to seek input on the proposed road project, including further route verification.

In May, 2013, a community meeting was held in BRFN to provide an update on the progress of the road under construction from PR304 to Berens River, to verify the alignment proposed for the P4-ASR, and to inform the community on the assessment and regulatory review for the proposed P4-ASR. As a result of feedback from the community, the proposed alignment near Berens River community was moved east to avoid a traditional hunting area near the North Etomami River (Map 7). On May 28, 2013, BRFN Chief and Council issued a Band Council Resolution indicating their support of the revised, proposed P4-ASR corridor, and their commitment to working with MFESRA to facilitate pre-construction work, clearing for environmental and site investigations, and ongoing community engagement activities (Attachment 1).

On December 6, 2013, PRFN Chief and Council also issued a Band Council Resolution indicating their support of exploratory clearing for site investigations, along the proposed P4-ASR alignment, to support design and assessment of a potential all-season road (Attachment 2).

During this time period, MFESRA met with the Poplar River Asatiwisipe Aki Ma Ma Wichitowin Mutual Land Relationship Board (March 12, 2012; November 26, 2012; February 25, 2014) as part of ongoing communication and engagement with the community.

6.2.2 Métis

During the Large Area Network Study, MFESRA shared information and met directly with the Manitoba Metis Federation (MMF) in Winnipeg (April 1, 2009; August 18, 2009; December 9, 2009). The purpose of these meetings was to introduce the overall project, discuss engagement of the MMF; and to discuss specific input for the P1 project (All season road from PR 304 to Berens River).

Subsequent meetings and discussions with the MMF occurred. On October 1, 2010, MFESRA entered into a contract with the MMF for a Traditional Land Use and Knowledge Study (TLUKS), to gain information on Métis traditional land use in the regional study area for the P1 project. The regional study area for the P1 project extended north to Poplar River First Nation, east to the Ontario border, and included the area identified as the project study area for P4-ASR, and other projects on the east side of the Lake. (SNC-Lavalin, 2009). Several meetings occurred during this process, including three local workshops held in Winnipeg, Selkirk, and Manigotagan. The contract was extended to September 20, 2012.

The report produced indicated that there has been some limited historical traditional use of the area in the vicinity of the P4-ASR alignment. The survey and workshop information indicated limited food fishing, small animal harvest, and large animal harvest near PRFN and along the Poplar River in the 1960's. No current use of traditional resources by Métis harvesters was identified near PRFN.

Some limited current Métis harvest of large and small animals was identified by those surveyed, beginning in the 1990's, south of Berens River First Nation, along the P1 alignment. There was some indication of large animal harvest north of Berens River, west along the P4-ASR alignment (Manitoba Metis Federation, 2011).

6.2.3 Other Aboriginal Communities

Early meetings at Berens River First Nation also included meetings with the Berens River Northern Affairs Community (NAC) Council (May 5, July 6, 2009). Aboriginal residents and other local resource users in the Berens River NAC had an opportunity to learn of the proposed East Side Transportation Initiative, and to identify areas of resource use.

6.3 Key Comments

MFESRA has responded in concrete ways to key comments expressed by PRFN and BRFN leadership and community members regarding the overall East Side Transportation Initiative, and the proposed P4-ASR. In particular, MFESRA has entered into Community Benefits Agreements with the two communities to increase the likelihood that the road will result in socio-economic benefits to local residents. As well, MFESRA has incorporated community values and traditional knowledge, as well as other considerations, into planning for the project, through refinements to the proposed all-season road alignment, as described above.

An overview of comments from PRFN and BRFN includes:

- Involve local communities in training and employment on road construction
- Involve local communities in providing and collecting information on the environment and land use
- Protection of the land and the environment is important, including water quality of Lake Winnipeg
- Protection of treaty rights, and for traditional use of resources is important
- The community anticipates social benefits from the road, through easier connections with other communities, and for easier and more frequent travel home for students from the community who attend school in larger centres
- Community members understand that there will be effects from the road but that they also want the road.
- Community members understand that trees, medicinal plants and wild berries will be disturbed by clearing but members also know that clearing will not be of large areas, just along the right-of-way.
- Community members do not want large industries like mining, forestry or hydro to come into their traditional territory.
- Community members identified major activities in the area include hunting, trapping and fishing.
- Community members identified wildlife, fish, waterfowl, songbirds and birds of prey that were important to them for various reasons.
- Community members identified special places of significance to the community (burial grounds, culturally important land features) near the community.

Concerns and issues identified by community members and the public throughout the Aboriginal and Public Engagement Program are being documented and will be analysed and described in the Environmental Impact Statement.

6.4 Next steps in engagement and information-gathering

As part of the ongoing engagement plan, MFESRA proposes to continue working with PRFN and BRFN to plan and hold community meetings at three key stages of the environmental assessment process for the P4-ASR:

- Submission of the Project Description: Information on environmental assessment process; Identification and verification of environmental factors to be considered in the environmental assessment.
- Preparation of the Environmental Impact Statement: Review of potential effects of the proposed road project; identify important effects to the communities, and identify how these effects may be mitigated.
- Results of the Environmental Assessment: Project update, and review and discussion of the environmental assessment results, and next steps.

In each case, MFESRA will provide an opportunity for a meeting with Community Elders in advance of the larger community meeting, if the community wishes. MFESRA will continue to work with local community members to identify effective methods of mitigation and accommodation.

MFESRA will directly inform the Manitoba Metis Federation of the availability of key documents in the environmental assessment process for the P4-ASR, and other projects within the Large Area Transportation Initiative, and invite comments. First Nation communities that are part of the East Side Large Area Network will also have access to updates on the proposed P4-ASR project as the initiative proceeds.

MFESRA also contributes to articles and purchases advertising updates in the *Grassroots News*, an Aboriginal (First Nations and Métis) newspaper in Manitoba. MFESRA also provides updates through community-based radio stations based in the east-side communities, and produces regular newsletters which are sent to each community and circulated to residents.

7 CONSULTATION WITH THE PUBLIC AND OTHER PARTIES

MFESRA's website outlines its commitment to the involvement of local residents, community leaders and non-governmental organizations in projects. The website provides project updates, news releases and information about the overall East Side Transportation Initiative, and proposed all-season road Projects being undertaken and proposed under that Initiative. The website has a calendar of events for community meetings and public open houses as they are proposed. It also provides opportunities for interested and affected parties to provide input to the projects.

MFESRA produces a newsletter that is available on its website. The newsletter provides information about road construction projects, status of projects under constructions, employment opportunities and general interest articles about the east side of Lake Winnipeg.

In addition to general internet and newsletter information, a number of meetings and open houses have occurred to engage and inform the public and other parties. These activities are summarized in Table 2.

Table 2: Summary of Engagement Program Activities with the Public and Other Stakeholders	
Activity/Date	Description
WNO Chiefs Meeting – April 30, 2009	MFESRA meeting with chiefs from Wabanong Nakaygum Okimawin to introduce proposed Large Area Transportation Initiative
General Public Open House – Winnipeg, June 25, 2009	MFESRA open house to introduce proposed P1 project and Large Area Transportation Initiative, including proposed P4-ASR segment.
Manitoba Trappers' Association meetings, - Winnipeg, March 10, 2010 November 7, 2013	MFESRA and Manitoba Trappers' Association meeting to discuss trapper interests and methods to engage local trappers. Follow-up meeting with MTA executive to update on East Side Transportation Initiative
Integrated Resource Management Team meetings. February 10, 2012, January 21, 2013, February 3, 2014	Community engagement, all-season road route and environmental assessment process discussed with Manitoba Conservation and Water Stewardship, Eastern Region in Lac du Bonnet. All season road route between Berens River and Poplar River First Nations presented and discussed.
Meeting with Manitoba Lodges and Outfitters Assoc. May 10, 2013; June 10, 2014	Discussed projects in overall East Side Transportation Initiative with Association's representative.

Table 2: Summary of Engagement Program Activities with the Public and Other Stakeholders	
Activity/Date	Description
Presentation to Wildlife Branch, MB Conservation and Water Stewardship Jan 6, 2014	Wildlife baseline data collection and analysis for all-season road route between Berens River and Poplar River First Nations discussed and road route presented.
Southeast Resource Development Council. Meeting of representatives of South East Tribal Council January 28, 2014	Presentation at environment workshop, sponsored by Aboriginal Affairs and Northern Development Canada. Overview of the proposed all-season road project, the environmental assessment process and mitigation measures.
Environmental Approvals Branch, MB Conservation and Water Stewardship, Canadian Environmental Assessment Agency, Federal & Provincial Expert Technical Advisory Committee members – Winnipeg, August 26, 2014	P4- all-season road route between Poplar River First Nation and Berens River presented and discussed. Overview of overall East Side Transportation Initiative.
Potential Future Engagement during the Environmental Assessment	
Open House	Information on proposed P4-ASR, including environmental assessment requirements, valued environmental components, potential effects and recommended mitigation, and preliminary results will be provided to Off-reserve or other non-local Aboriginal people, stakeholders, and the general public.

7.1 Overview of comments and concerns from the public and other parties

To date, comments and concerns noted through public consultation (other than engagement or consultation with Aboriginal groups) have been largely received as part of the consultation activities conducted under the larger East Side Planning Initiative, or related to the P1-All Season road from PR304 to Berens River, currently under construction. Public comments received under those processes have noted the importance of ensuring appropriate assessment methodologies, and considering specific environmental features (specifically moose and Woodland Caribou) (CEAA, 2011).

7.2 Proposed stakeholder consultation activities

With specific reference to the P4-ASR project, MFESRA intends to host an open house for the general public within the city of Winnipeg or in other communities where warranted. Meetings or open houses such as these will be advertised in local newspapers, and other stakeholders or members or the interested public may attend and provide feedback regarding the project. MFESRA is committed to open and transparent discussions with communities or stakeholders within the East Side Transportation Initiative, who wish further information about proposed projects. Although directed toward the interested public, and non-Aboriginal stakeholders, this will also provide an opportunity to inform First Nations and other Aboriginal people who live off-reserve in urban areas, or in other communities, about the project.

Dates and locations of meetings or open houses will be determined during the environmental assessment process. Feedback and comments will be summarized and considered within that process, and noted in the environmental impact assessment.

7.3 Consultation with other jurisdictions

On August 26, 2014, MFESRA staff met with representatives from Manitoba Conservation and Water Stewardship (MCWS), Environmental Approvals Branch; the Canadian Environmental Assessment Agency; and with the members of the provincial and federal Technical Advisory Committee (TAC). Provincial TAC members represented branches of MCWS with expertise in wildlife (caribou), protected areas, and water resource licenses/permits. Federal expert departments represented were: Environment Canada, Health Canada, Aboriginal Affairs and Northern Development Canada, Fisheries and Oceans, and Transport Canada.

The goal of the meeting was to introduce the P4-ASR within the context of the larger East Side Transportation Initiative, and to inform participants and reviewers in any subsequent environmental assessment process of important deadlines, policies, and likely information requirements.

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FIGURES

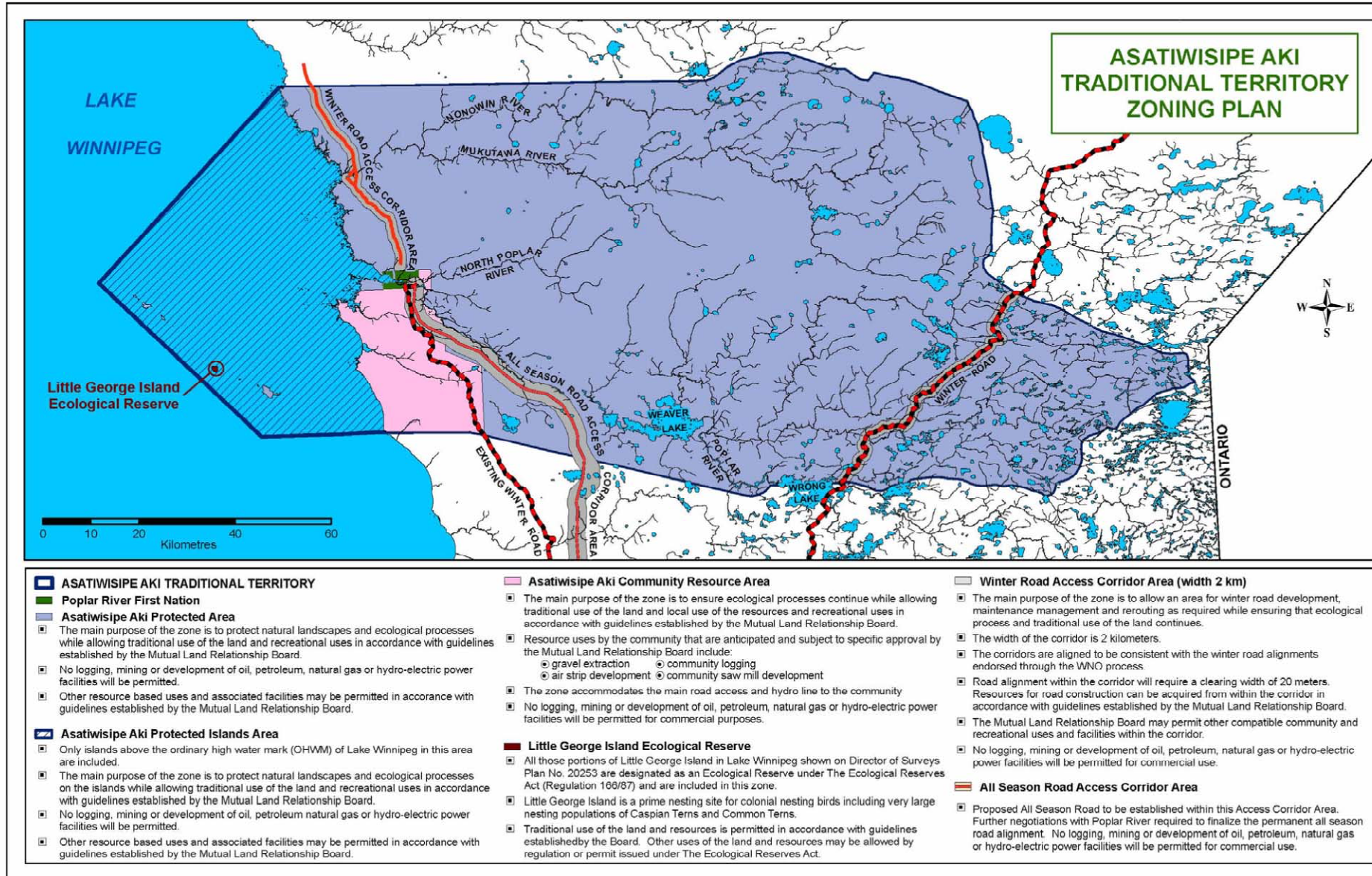


Figure 1: Asatiwisipe Aki Traditional Use Planning Area (from Poplar River First Nation, 2011)

Recognized Areas for Metis Natural Resource Harvesting

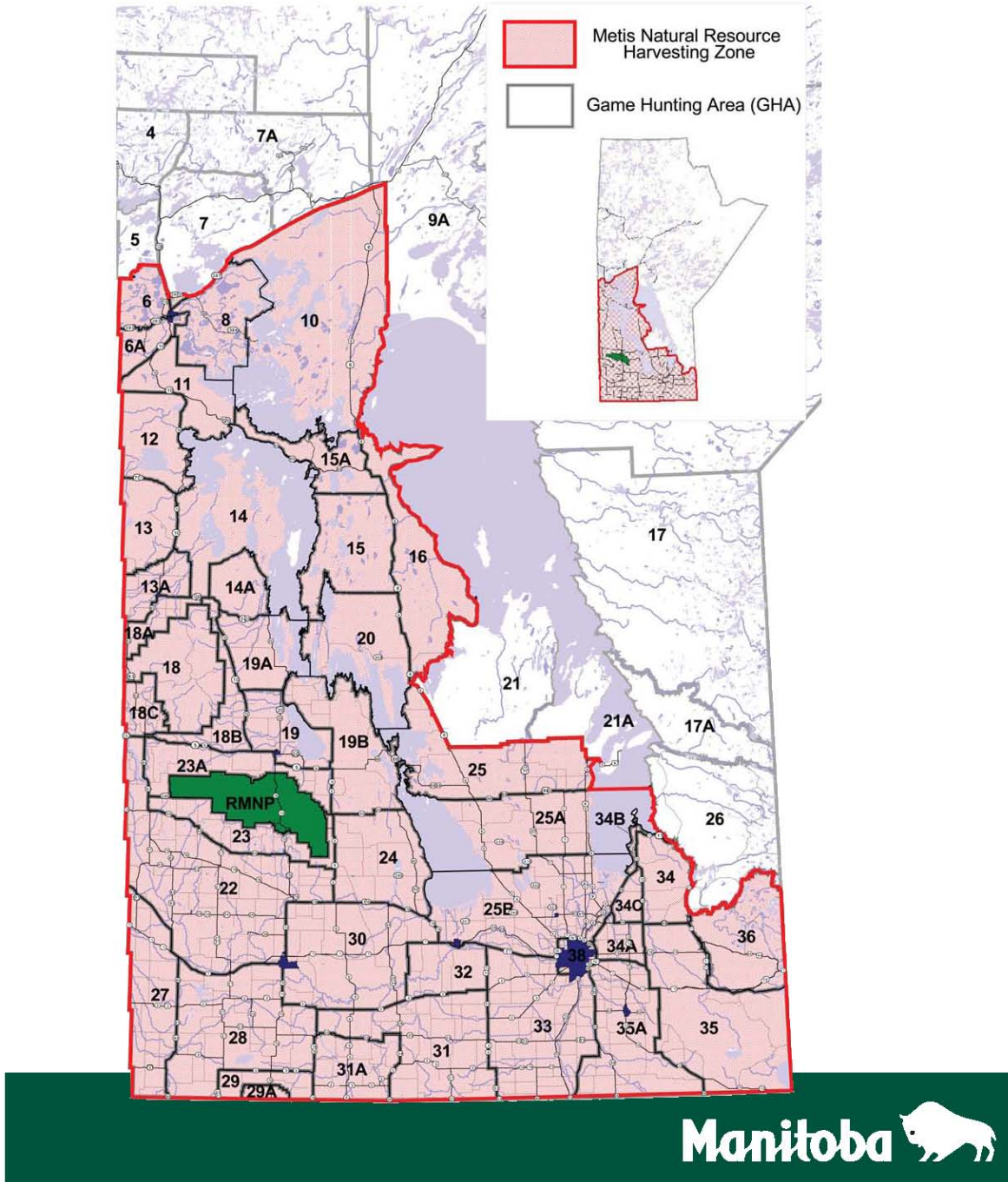


Figure 2. Recognized Areas for Metis Natural Resource Harvesting in Manitoba (Manitoba Conservation and Water Stewardship, 2012)

PHOTOS

Note:

Where indicated as 'representative', the photos are taken from outside the P4-ASR area. Photos showing constructed road, bridges, or culverts are from the Project 1 area (P1 - All-season road between PR 304 and Berens River First Nation).



Photo 1: Berens River *(Photo Credit: North South Consultants)*



Photo 2: Etomami River *(Photo Credit : North/South Consultants)*



Photo 3: Etomami River (Photo Credit : North/South Consultants)



Photo 4: North Etomami River (Photo Credit : North/South Consultants)



Photo 5 : Small Tributary *(photo credit: North/South Consultants)*



Photo 6: Leaf River *(Photo Credit: North/South Consultants)*



Photo 7: Leaf River (*Photo Credit: Joro Consultants*)



Photo 8: Small Tributary/crossing (photo credit: North/South Consultants)

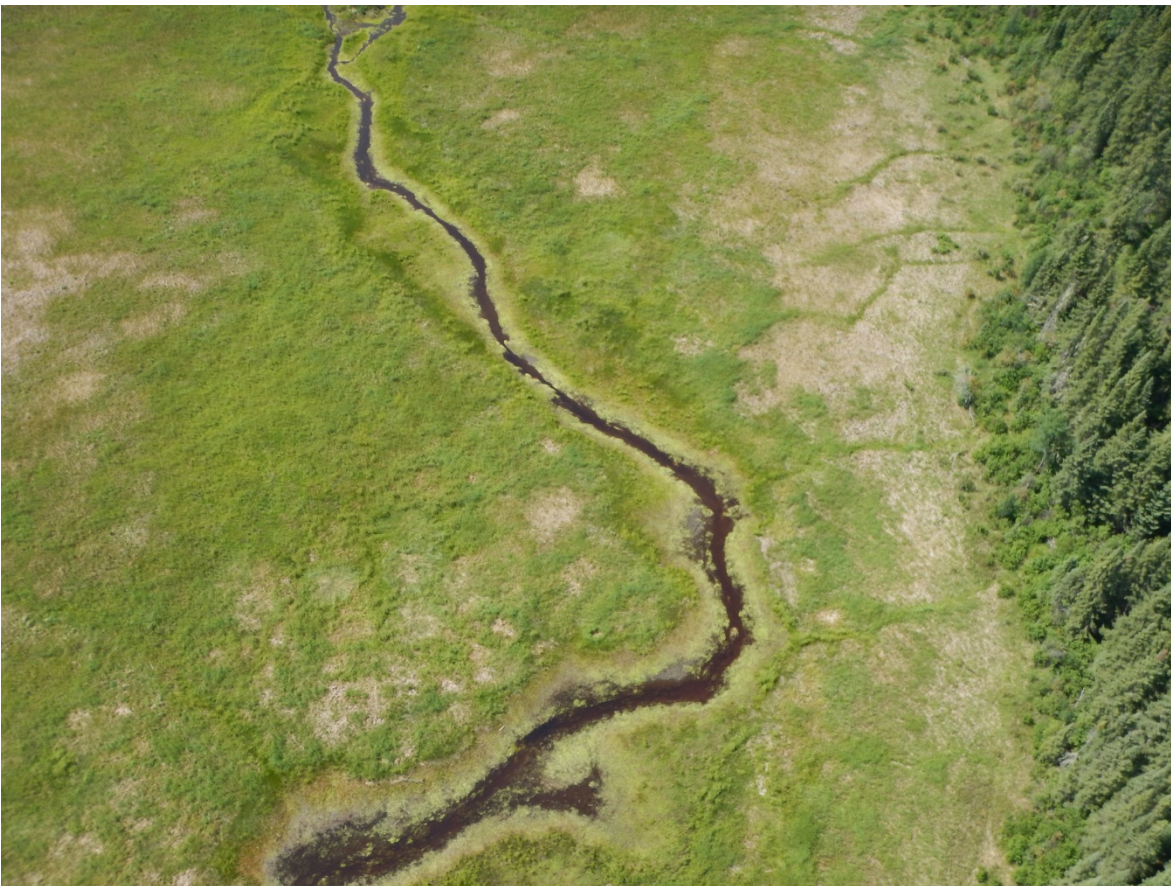


Photo 9: Small Tributary (Photo Credit: North/South Consultants)



Photo 10 : Small tributary/drainage *(photo credit North/South Consultants)*



Photo 11: Stream Crossing – Bridge with Piers over Longbody Creek *(representative from P1)*
Photo Credit: Joro Consultants



Photo 12: Stream Crossing – Three culverts (representative from P1)

Photo Credit: Joro Consultants



Photo 13: River Crossing – Bridge construction over Bloodvein River (representative from P1)

Photo Credit: Joro Consultants



Photo 14: Small drainage/stream crossing – single culvert (representative from P1)
Photo Credit: Joro Consultants



Photo 15: Rock outcrop - Potential quarry site (south of Poplar River First Nation)
Photo Credit: Manitoba Floodway and East Side Road Authority



Photo 16: Berens River First Nation
Photo Credit: Joro Consultants



Photo 17: Poplar River First Nation, looking north across Poplar River. Proposed Community Access Road will connect to existing community road network south of bridge. (Photo Credit: Joro Consultants)



Photo 18: Poplar River First Nation, looking south across Poplar River (Note transmission line right of way, exploratory clearing along proposed all season road alignment, and existing 2013-14 winter road) Photo Credit: Joro Consultants

APPENDIX A: KNOWN MBCDC LISTED PLANTS FOR THE LAC SEUL
ECOREGION

Common Name	Scientific Name	MBCDC Listing
Arethusa	<i>Arethusa bulbosa</i>	S2
Big-head rush	<i>Juncus vaseyi</i>	S4?
Blister sedge	<i>Carex vesicaria</i>	SU
Blue-eyed Mary	<i>Collinsia parviflora</i>	S1
Bog club-moss	<i>Lycopodiella inundata</i>	S1
Canada yew	<i>Taxus canadensis</i>	S3
Chestnut sedge	<i>Carex castanea</i>	S3
Cleavers	<i>Galium aparine</i>	SU
Closed gentian	<i>Gentiana rubricaulis</i>	S2S3
Dwarf bilberry	<i>Vaccinium caespitosum</i>	S3
Emory's sedge	<i>Carex emoryi</i>	S2?
False heather	<i>Hudsonia tomentosa</i>	S3
Farwell's water-milfoil	<i>Myriophyllum farwellii</i>	S1
Fragrant shield fern	<i>Dryopteris fragrans</i>	S3S4
Fragrant water-lily	<i>Nymphaea odorata ssp. odorata</i>	S2
Graceful manna grass	<i>Glyceria pulchella</i>	S2
Ground-cedar	<i>Diphasiastrum tristachyum</i>	S3
Hooker's orchid	<i>Platanthera hookeri</i>	S2
Inland rush	<i>Juncus interior</i>	S1
Interrupted fern	<i>Osmunda claytoniana</i>	S3
Large enchanter's-nightshade	<i>Circaea lutetiana ssp. canadensis</i>	S2
Large northern aster	<i>Canadanthus modestus</i>	S2
Large white-flowered ground-cherry	<i>Leucophysalis grandiflora</i>	S3
Large-leaved pondweed	<i>Potamogeton amplifolius</i>	S2?
Livid sedge	<i>Carex livida</i>	S3
Long-spurred Violet	<i>Viola selkirkii</i>	S2
Merritt fernald's sedge	<i>Carex merritt-fernaldii</i>	S1
Mountain club-moss	<i>Huperzia selago</i>	S2S3
Narrow-leaved gerardia	<i>Agalinis tenuifolia</i>	S2S3
Necklace sedge	<i>Carex projecta</i>	S2?
Northern oak fern	<i>Gymnocarpium jessoense</i>	S3S4
Pale manna grass	<i>Torreyochloa pallida var. fernaldii</i>	S2
Plantain-leaved everlasting	<i>Antennaria plantaginifolia</i>	S1S2
Ram's head lady's-slipper	<i>Cypripedium arietinum</i>	S2S3
Rattlesnake grass	<i>Glyceria canadensis</i>	S1

Common Name	Scientific Name	MBCDC Listing
Rice cutgrass	<i>Leersia oryzoides</i>	S3?
Round-leaved bog orchid	<i>Platanthera orbiculata</i>	S3
Round-leaved pyrola	<i>Pyrola americana</i>	S2
Running-pine	<i>Lycopodium clavatum</i> var. <i>clavatum</i>	S2
Sensitive fern	<i>Onoclea sensibilis</i>	S3S4
Sessile-fruited arrowhead	<i>Sagittaria rigida</i>	S2
Shining club-moss	<i>Huperzia lucidula</i>	S1
Slender sedge	<i>Carex gracillima</i>	S3
Stalked sedge	<i>Carex pedunculata</i>	S3?
Tesselated rattlesnake plantain	<i>Goodyera tesselata</i>	S2
Three-way sedge	<i>Dulichium arundinaceum</i>	S2
Water bulrush	<i>Schoenoplectus subterminalis</i>	SU
Water lobelia	<i>Lobelia dortmanna</i>	S2
Water star-grass	<i>Heteranthera dubia</i>	S2
Water-marigold	<i>Megalodonta beckii</i>	S3
Water-milfoil	<i>Myriophyllum alterniflorum</i>	S2?
White beakrush	<i>Rhynchospora alba</i>	S3?
White-buttons	<i>Eriocaulon aquaticum</i>	S1
White-haired panic-grass	<i>Dichantherium linearifolium</i>	S2
White-scaled sedge	<i>Carex xerantica</i>	S3?
Wild ginger	<i>Asarum canadense</i>	S3S4

Source: MBCDC (2013)

MBCDC (2013) Definitions for Status Listing:

- 1** Very rare throughout its range or in the province (5 or fewer occurrences, or very few remaining individuals). May be especially vulnerable to extirpation.
- 2** Rare throughout its range or in the province (6 to 20 occurrences). May be vulnerable to extirpation.
- 3** Uncommon throughout its range or in the province (21 to 100 occurrences).
- 4** Widespread, abundant, and apparently secure throughout its range or in the province, with many occurrences, but the element is of long-term concern (> 100 occurrences).
- 5** Demonstrably widespread, abundant, and secure throughout its range or in the province, and essentially impossible to eradicate under present conditions.
- U** Possibly in peril, but status uncertain; more information needed.
- H** Historically known; may be rediscovered.
- X** Believed to be extinct; historical records only, continue search.
- SNR** A species not ranked. A rank has not yet assigned or the species has not been evaluated.
- SNA** A conservation status rank is not applicable to the element

S#S# Numeric range rank: A range between two of the numeric ranks. Denotes range of uncertainty about the exact rarity of the species.

?* Inexact or uncertain; for numeric ranks, denotes inexactness.

APPENDIX B: KNOWN LIST OF MAMMALS FOR THE LOCAL PROJECT
STUDY AREA

Common Name	Scientific Name	Conservation Listing
American beaver	<i>Castor canadensis</i>	
American black bear	<i>Ursus americanus</i>	
American deer mouse	<i>Peromyscus maniculatus</i>	
American marten	<i>Martes americana</i>	
American mink	<i>Neovison vison</i>	
American water shrew	<i>Sorex palustris</i>	
Arctic shrew	<i>Sorex arcticus</i>	
Big brown bat	<i>Eptesicus fuscus</i>	
Canada lynx	<i>Lynx canadensis</i>	
Coyote	<i>Canis latrans</i>	
Eastern heather vole	<i>Phenacomys ungava</i>	
Ermine (short-tailed weasel)	<i>Mustela erminea</i>	
Fisher	<i>Martes pennanti</i>	
Grey wolf	<i>Canis lupus</i>	
Hoary bat	<i>Lasiurus cinereus</i>	
House mouse	<i>Mus musculus</i>	
Least chipmunk	<i>Eutamias minimus</i>	
Least weasel	<i>Mustela nivalis</i>	
Little brown bat	<i>Myotis lucifugus</i>	Endangered- no schedule
Masked shrew	<i>Sorex cinereus</i>	
Meadow jumping mouse	<i>Zapus hudsonius</i>	
Meadow vole	<i>Microtus pennsylvanicus</i>	
Moose	<i>Alces alces</i>	
Muskrat	<i>Ondatra zibethicus</i>	
North American porcupine	<i>Erethizon dorsatum</i>	
Northern bog lemming	<i>Synaptomys borealis</i>	
Northern flying squirrel	<i>Glaucomys sabrinus</i>	
Pygmy shrew	<i>Sorex hoyi</i>	
Racoon	<i>Procyon lotor</i>	
Red fox	<i>Vulpes vulpes</i>	
Red squirrel	<i>Tamiasciurus hudsonicus</i>	
River otter	<i>Lontra canadensis</i>	
Short-tailed shrew	<i>Blarina brevicauda</i>	
Silver-haired bat	<i>Lasionycteris noctivagans</i>	

Common Name	Scientific Name	Conservation Listing
Snowshoe hare	<i>Lepus americanus</i>	
Southern red-backed vole	<i>Clethrionomys gapperi</i>	
Star-nosed mole	<i>Condylura cristata</i>	S3
Striped skunk	<i>Mephitis mephitis</i>	
White-tailed deer	<i>Odocoileus virginianus</i>	
Wolverine	<i>Gulo gulo</i>	Special Concern- no schedule
Woodchuck	<i>Marmota monax</i>	
Woodland caribou	<i>Rangifer tarandus caribou</i>	Threatened- Schedule 1 - S2S3

Joro, 2014.

(from sources: Caras (1967); Reid (2006); MBCDC (2013); and SARA (2013))

MBCDC (2013) Definitions for Status Listing:

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- SNA** A conservation status rank is not applicable to the element.
- S#S#** Numeric range rank: A range between two of the numeric ranks. Denotes range of uncertainty about the exact rarity of the species.
- ?*** Inexact or uncertain; for numeric ranks, denotes inexactness.

SARA (2013) Definitions for Status Listing:

Schedule 1: is the official list of species that are classified as extirpated, endangered, threatened, and of special concern.

Threatened: a wildlife species that is likely to become endangered if nothing is done to reverse the factors leading to its extirpation or extinction.

Special Concern: a wildlife species that may become a threatened or an endangered species because of a combination of biological characteristics and identified threats.

Endangered: A wildlife species facing imminent extirpation or extinction.

APPENDIX C: KNOWN LIST OF BIRDS FOR LOCAL PROJECT STUDY
AREA

Common Name	Scientific Name	Conservation Listing
Alder flycatcher	<i>Empidonax alnorum</i>	
American bittern	<i>Botaurus lentiginosus</i>	
American black duck	<i>Anas rubripes</i>	
American coot	<i>Fulica americana</i>	
American crow	<i>Corvus brachyrhychos</i>	
American golden-plover	<i>Pluvialis dominica</i>	
American goldfinch	<i>Spinus tristis</i>	
American kestrel	<i>Falco sparverius</i>	
American pipit	<i>Anthus rubescens</i>	
American redstart	<i>Setophaga ruticilla</i>	
American robin	<i>Turdus migratorius</i>	
American three-toed woodpecker	<i>Picoides dorsalis</i>	
American tree sparrow	<i>Spizella arborea</i>	
American white pelican	<i>Pelicanus erythrorhynchos</i>	
American wigeon	<i>Anas americana</i>	
American woodcock	<i>Scolopax minor</i>	
Baird's sandpiper	<i>Calidris bairdii</i>	
Bald eagle	<i>Haliaeetus leucocephalus</i>	
Baltimore Oriole	<i>Icterus galbula</i>	
Bank swallow	<i>Riparia riparia</i>	
Barn swallow	<i>Hirundo rustica</i>	Threatened- no schedule
Barred owl	<i>Strix varia</i>	S4B
Bay-breasted warbler	<i>Setophaga castanea</i>	
Belted kingfisher	<i>Megaceryle alcyon</i>	
Black scoter	<i>Melanitta americana</i>	
Black tern	<i>Chlidonias niger</i>	
Black-and-white warbler	<i>Mniotilta varia</i>	
Black-backed woodpecker	<i>Picoides arcticus</i>	
Black-bellied plover	<i>Pluvialis squatarola</i>	
Black-billed cuckoo	<i>Coccyzus erythrophthalmus</i>	
Black-billed magpie	<i>Pica hudsonia</i>	
Blackburnian warbler	<i>Setphaga fusca</i>	
Black-capped chickadee	<i>Poecile atricapillus</i>	
Blackpoll warbler	<i>Setophaga striata</i>	
Black-throated green warbler	<i>Setophaga virens</i>	
Blue jay	<i>Cyanocitta cristata</i>	
Blue-headed vireo	<i>Vireo solitarius</i>	
Blue-winged teal	<i>Anas discors</i>	
Bohemian waxwing	<i>Bombycilla garrulus</i>	
Bonaparte's gull	<i>Chroicocephalus philadelphia</i>	

Common Name	Scientific Name	Conservation Listing
Boreal chickadee	<i>Poecile hudsonicus</i>	
Boreal owl	<i>Aegolius funereus</i>	
Brewer`s blackbird	<i>Euphagus cyanocephalus</i>	
Broad-winged hawk	<i>Buteo platypterus</i>	
Brown creeper	<i>Certhia americana</i>	
Brown-headed cowbird	<i>Molothrus ater</i>	
Buff-breasted sandpiper	<i>Tryngites subruficollis</i>	
Bufflehead	<i>Bucephala albeola</i>	
Canada goose	<i>Branta canadensis</i>	
Canada warbler	<i>Cardellina canadensis</i>	Threatened- Schedule 1- S4B
Canvasback	<i>Aythya valisineria</i>	
Cape May warbler	<i>Setophaga tigrina</i>	
Caspian tern	<i>Hydroprogne caspia</i>	
Cedar waxwing	<i>Bombycilla cedrorum</i>	
Chestnut-collared longspur	<i>Calcarius ornatus</i>	
Chestnut-sided warbler	<i>Setophaga pensylvanica</i>	
Chipping sparrow	<i>Spizella passerina</i>	
Clay-colored sparrow	<i>Spizella pallida</i>	
Cliff swallow	<i>Petrochelidon pyrrhonota</i>	
Common goldeneye	<i>Bucephala clangula</i>	
Common grackle	<i>Quiscalus quiscula</i>	
Common loon	<i>Gavia immer</i>	
Common merganser	<i>Mergus merganser</i>	
Common nighthawk	<i>Chordeiles minor</i>	Threatened- Schedule 1- S3B
Common raven	<i>Corvus corax</i>	
Common redpoll	<i>Acanthis flammea</i>	
Common snipe	<i>Gallinago gallinago</i>	
Common tern	<i>Sterna hirundo</i>	
Common yellowthroat	<i>Geothlypis trichas</i>	
Connecticut warbler	<i>Oporornis agilis</i>	
Dark-eyed junco	<i>Junco hyemalis</i>	
Double-crested cormorant	<i>Phalacrocorax auritus</i>	S5B
Downy woodpecker	<i>Picoides pubescens</i>	
Dunlin	<i>Calidris alpina</i>	
Eastern bluebird	<i>Sialia sialis</i>	
Eastern kingbird	<i>Tyrannus tyrannus</i>	
Eastern phoebe	<i>Sayornis phoebe</i>	
European starling	<i>Sturnus vulgaris</i>	
Evening grosbeak	<i>Coccothraustes verspetinus</i>	
Forster's tern	<i>Sterna forsteri</i>	

Common Name	Scientific Name	Conservation Listing
Fox sparrow	<i>Passerella iliaca</i>	
Franklin's gull	<i>Leucophaeus pipixcan</i>	
Gadwall	<i>Anus strepera</i>	
Glaucous gull	<i>Larus hyperboreus</i>	
Golden eagle	<i>Aquila chrysaetos</i>	
Golden-crowned kinglet	<i>Regulus satrapa</i>	
Gray catbird	<i>Dumetella carolinensis</i>	
Gray jay	<i>Perisoreus canadensis</i>	
Gray-cheeked thrush	<i>Catharus minimus</i>	
Great blue heron	<i>Ardea herodias</i>	S4S5B
Great gray owl	<i>Strix nebulosa</i>	
Great horned owl	<i>Bubo virginianus</i>	
Greater scaup	<i>Aythya marila</i>	
Greater white-fronted goose	<i>Anser albifrons</i>	
Greater yellowlegs	<i>Tringa melanoleuca</i>	
Green-winged teal	<i>Anas crecca</i>	
Gyr Falcon	<i>Falco rusticolus</i>	
Hairy woodpecker	<i>Picoides villosus</i>	
Harris's sparrow	<i>Zonotrichia querula</i>	
Hermit thrush	<i>Catharus guttatus</i>	
Herring gull	<i>Larus argentatus</i>	
Hoary redpoll	<i>Acanthis hornemanni</i>	
Hooded merganser	<i>Lophodytes cucullatus</i>	
Horned grebe	<i>Podiceps auritus</i>	Special Concern- no schedule
Horned lark	<i>Eremophila alpestris</i>	
House sparrow	<i>Passer domesticus</i>	
House wren	<i>Troglodytes aedon</i>	
Killdeer	<i>Charadrius vociferus</i>	
Lapland longspur	<i>Calcarius lapponicus</i>	
Le Conte's sparrow	<i>Ammodramus leconteii</i>	
Least flycatcher	<i>Empidonax minimus</i>	
Least sandpiper	<i>Calidris minutilla</i>	
Lesser scaup	<i>Aythya affinis</i>	
Lesser yellowlegs	<i>Tringa flavipes</i>	
Lincoln's sparrow	<i>Melospiza lincolni</i>	
Long-billed dowitcher	<i>Limnodromus scolopaceus</i>	
Long-eared owl	<i>Asio otus</i>	
Long-tailed duck	<i>Clangula hyemalis</i>	
Magnolia warbler	<i>Setophaga magnolia</i>	
Mallard	<i>Anus platyrhynchos</i>	
Merlin	<i>Falco columbarius</i>	

Common Name	Scientific Name	Conservation Listing
Mountain bluebird	<i>Sialia currocoides</i>	
Mourning warbler	<i>Geothlypis philadelphia</i>	
Nashville warbler	<i>Oreothlypis ruficapilla</i>	
Northern flicker	<i>Colaptes auratus</i>	
Northern goshawk	<i>Accipiter gentilis</i>	
Northern harrier	<i>Circus cyaneus</i>	
Northern hawk owl	<i>Surnia ulula</i>	
Northern mockingbird	<i>Mimus polyglottos</i>	
Northern parula	<i>Setophaga americana</i>	S3B
Northern pintail	<i>Anus acuta</i>	
Northern saw-whet owl	<i>Aegolius acadicus</i>	
Northern shoveler	<i>Anus clypeata</i>	
Northern shrike	<i>Lanius excubitor</i>	
Northern waterthrush	<i>Parkesia noveboracensis</i>	
Olive-sided flycatcher	<i>Contopus cooperi</i>	Threatened- Schedule 1- S3S4B
Orange-crowned warbler	<i>Oreothlypis celata</i>	
Osprey	<i>Pandion haliaetus</i>	
Ovenbird	<i>Seirus aurocapillus</i>	
Palm warbler	<i>Setophaga palmarum</i>	
Pectoral sandpiper	<i>Calidris melanotos</i>	
Peregrine falcon+	<i>Falco peregrinus</i>	Special Concern- no schedule
Philadelphia vireo	<i>Vireo philadelphicus</i>	
Pied-billed grebe	<i>Podilymbus podiceps</i>	
Pileated woodpecker	<i>Dryocopos pileatus</i>	
Pine grosbeak	<i>Pinicola enucleator</i>	
Pine siskin	<i>Spinus pinus</i>	
Purple finch	<i>Haemorhous purpureus</i>	
Red crossbill	<i>Loxia curvirostra</i>	
Red-breasted merganser	<i>Mergus serrator</i>	
Red-breasted nuthatch	<i>Sitta canadensis</i>	
Red-eyed vireo	<i>Vireo olivaceus</i>	
Red-necked grebe	<i>Podiceps grisegena</i>	
Red-necked phalarope	<i>Phalaropus lobatus</i>	
Red-tailed hawk	<i>Buteo jamaicensis</i>	
Red-winged blackbird	<i>Agelaius phoeniceus</i>	
Ring-billed gull	<i>Larus delawarensis</i>	
Ring-necked duck	<i>Aythya collaris</i>	
Rock dove	<i>Columba livia</i>	
Rose-breasted grosbeak	<i>Pheucticus ludovicianus</i>	
Ross's goose	<i>Chen rossii</i>	

Common Name	Scientific Name	Conservation Listing
Rough-legged hawk	<i>Buteo lagopus</i>	
Ruby-crowned kinglet	<i>Regulus calendula</i>	
Ruby-throated hummingbird	<i>Archilochus colubris</i>	
Ruddy duck	<i>Oxyura jamaicensis</i>	
Ruddy turnstone	<i>Arenaria interpres</i>	
Ruffed grouse	<i>Bonasa umbellus</i>	
Rusty blackbird	<i>Euphagus carolinus</i>	Special Concern- Schedule 1
Sanderling	<i>Calidris alba</i>	
Sandhill crane	<i>Grus canadensis</i>	
Savannah sparrow	<i>Passerculus sandwichensis</i>	
Sedge wren	<i>Cistothorus platensis</i>	
Semipalmated plover	<i>Charadrius semipalmatus</i>	
Semipalmated sandpiper	<i>Calidris pusilla</i>	
Sharp-shinned hawk	<i>Accipiter striatus</i>	
Sharp-tailed grouse	<i>Tympanuchus phasianellus</i>	
Short-billed dowitcher	<i>Limnodromus griseus</i>	
Short-eared owl	<i>Asio flammeus</i>	Special Concern- Schedule 3- S3
Smith's longspur	<i>Calcarius pictus</i>	
Snow bunting	<i>Plectrophenax nivalis</i>	
Snow goose	<i>Chen caerulescens</i>	
Snowy owl	<i>Bubo scandiaca</i>	
Solitary sandpiper	<i>Tringa solitaria</i>	
Song sparrow	<i>Melospiza melodia</i>	
Sora	<i>Porzana carolina</i>	
Spotted sandpiper	<i>Actitis macularia</i>	
Sprague's pipit	<i>Anthus spragueii</i>	
Spruce grouse	<i>Falciennis canadensis</i>	
Stilt sandpiper	<i>Calidris himantopus</i>	
Surf scoter	<i>Melanitta perspicillata</i>	
Swainson's thrush	<i>Catharus ustulatus</i>	
Swamp sparrow	<i>Melospiza georgiana</i>	
Tennessee warbler	<i>Oreothlypis peregrina</i>	
Tree swallow	<i>Tachycineta bicolor</i>	
Trumpeter swan	<i>Cygnus buccinator</i>	S1S2B
Tundra swan	<i>Cygnus columbianus</i>	
Turkey vulture	<i>Cathartes aura</i>	
Vesper sparrow	<i>Pooecetes gramineus</i>	
Warbling vireo	<i>Vireo gilvus</i>	
Western grebe	<i>Aechmophorus occidentalis</i>	
Whip-poor-will	<i>Antrostomus vociferus</i>	Threatened- Schedule

Common Name	Scientific Name	Conservation Listing
		1- S3B
White-crowned sparrow	<i>Zonotrichia leucophrys</i>	
White-rumped sandpiper	<i>Calidris fuscicollis</i>	
White-throated sparrow	<i>Zonotrichia albicollis</i>	
White-winged crossbill	<i>Loxia leucoptera</i>	
White-winged scoter	<i>Melanitta fusca</i>	
Willow ptarmigan	<i>Lagopus lagopus</i>	
Wilson's phalarope	<i>Phalaropus tricolour</i>	
Wilson's warbler	<i>Cardellina pusilla</i>	
Winter wren	<i>Troglodytes hiemalis</i>	
Wood duck	<i>Aix sponsa</i>	
Yellow rail	<i>Coturnicops noveboracensis</i>	Special Concern- Schedule 1- SS3S4B
Yellow warbler	<i>Setophaga petechia</i>	
Yellow-bellied flycatcher	<i>Empidonax flaviventris</i>	
Yellow-bellied sapsucker	<i>Sphyrapicus varius</i>	
Yellow-rumped warbler	<i>Setophaga coronata</i>	

*Peregrine falcon is considered a potential visitor in the Project Study Area

From: Joro, 2014

Sources: Bezener and De Smet (2000); Peterson and Peterson (2002); Manitoba Avian Research Committee (2003); MBCDC (2013); and SARA (2013)

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- 5** Demonstrably widespread, abundant, and secure throughout its range or in the province, and essentially impossible to eradicate under present conditions.
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- S#S#** Numeric range rank: A range between two of the numeric ranks. Denotes range of uncertainty about the exact rarity of the species.
- ?*** Inexact or uncertain; for numeric ranks, denotes inexactness.

B Breeding status of a migratory species. Example: S1B,SZN - breeding occurrences for the species are ranked S1 (critically imperilled) in the province, nonbreeding occurrences are not ranked in the province.

SARA (2013) Definitions for Status Listing:

Schedule 1: is the official list of species that are classified as extirpated, endangered, threatened, and of special concern.

Schedule 2: species listed in Schedule 2 are species that had been designated as endangered or threatened, and have yet to be re-assessed by COSEWIC using revised criteria. Once these species have been re-assessed, they may be considered for inclusion in Schedule 1.

Schedule 3: species listed in Schedule 3 are species that had been designated as special concern, and have yet to be re-assessed by COSEWIC using revised criteria. Once these species have been re-assessed, they may be considered for inclusion in Schedule 1.

Special Concern: a wildlife species that may become a threatened or an endangered species because of a combination of biological characteristics and identified threats.

Threatened: a wildlife species that is likely to become endangered if nothing is done to reverse the factors leading to its extirpation or extinction.

APPENDIX D: KNOWN LIST OF AMPHIBIANS AND REPTILES FOR
LOCAL PROJECT STUDY AREA

Common Name	Scientific Name	Conservation Status
American toad	<i>Bufo americanus</i>	
Blue-spotted salamander	<i>Ambystoma laterale</i>	S3S4
Boreal chorus frog	<i>Pseudacris triseriata</i>	
Cope's gray tree frog	<i>Hyla chrysoscelis</i>	
Gray tree frog	<i>Hyla versicolor</i>	
Green Frog	<i>Rana clamitans</i>	S1S2
Mink frog	<i>Rana septentrionalis</i>	S3
Mudpuppy	<i>Necturus maculosus</i>	
Northern leopard frog	<i>Rana pipiens</i>	S4
Northern spring peeper	<i>Hyla crucifer</i>	
Red-sided garter snake	<i>Thamnophis sirtalis parietalis</i>	
Snapping turtle	<i>Chelydra serpentina serpentina</i>	Special Concern – Schedule 1- S3
Western painted turtle	<i>Chrysemys picta</i>	
Wood frog	<i>Rana sylvatica</i>	

From Joro, 2014

Sources: Conant and Collins (1991); Science Team Report (2002); MBCDC (2013); and SARA (2013)

MBCDC (2013) Definitions for Status Listing:

- 1** Very rare throughout its range or in the province (5 or fewer occurrences, or very few remaining individuals). May be especially vulnerable to extirpation.
- 2** Rare throughout its range or in the province (6 to 20 occurrences). May be vulnerable to extirpation.
- 3** Uncommon throughout its range or in the province (21 to 100 occurrences).
- 4** Widespread, abundant, and apparently secure throughout its range or in the province, with many occurrences, but the element is of long-term concern (> 100 occurrences).
- 5** Demonstrably widespread, abundant, and secure throughout its range or in the province, and essentially impossible to eradicate under present conditions.
- U** Possibly in peril, but status uncertain; more information needed.
- H** Historically known; may be rediscovered.
- X** Believed to be extinct; historical records only, continue search.
- SNR** A species not ranked. A rank has not yet assigned or the species has not been evaluated.
- SNA** A conservation status rank is not applicable to the element.
- S##S#** Numeric range rank: A range between two of the numeric ranks. Denotes range of uncertainty about the exact rarity of the species.
- ?*** Inexact or uncertain; for numeric ranks, denotes inexactness.

SARA (2013) Definitions for Status Listing:

Schedule 1: is the official list of species that are classified as extirpated, endangered, threatened, and of special concern.

Special Concern: a wildlife species that may become a threatened or an endangered species because of a combination of biological characteristics and identified threats.

APPENDIX E: SPECIES OF CONSERVATION CONCERN IN THE LAC SEUL
UPLAND ECOREGION

Species of Conservation Concern in the Lac Seul Upland Ecoregion			
Scientific Name	Common Name	S Rank	G Rank
Animal Assemblage			
Gull Colony		GNR	SNR
Snake Hibernaculum		GNR	SNR
Tern Colony		GNR	SNR
Vascular Plant			
<i>Agalinis tenuifolia</i>	Narrow-leaved Gerardia	S2S3	G5
<i>Antennaria plantaginifolia</i>	Plantain-leaved Everlasting	S1S2	G5
<i>Arethusa bulbosa</i>	Arethusa	S2	G4
<i>Asarum canadense</i>	Wild Ginger	S3S4	G5
<i>Canadanthus modestus</i>	Large Northern Aster	S2	G5
<i>Carex castanea</i>	Chestnut Sedge	S3	G5
<i>Carex emoryi</i>	Emory's Sedge	S2?	G5
<i>Carex gracillima</i>	Slender Sedge	S3	G5
<i>Carex livida</i>	Livid Sedge	S3	G5
<i>Carex merritt-fernaldii</i>	Merritt Fernald's Sedge	S1	G5
<i>Carex pedunculata</i>	Stalked Sedge	S3?	G5
<i>Carex projecta</i>	Necklace Sedge	S2?	G5
<i>Carex vesicaria</i>	Blister Sedge	SU	G5
<i>Carex xerantica</i>	White-scaled Sedge	S3?	G5
<i>Circaea lutetiana</i> ssp. <i>canadensis</i>	Large Enchanter's-nightshade	S2	G5T5
<i>Collinsia parviflora</i>	Blue-eyed Mary	S1	G5
<i>Cypripedium arietinum</i>	Ram's Head Lady's-slipper	S2S3	G3
<i>Dichanthelium linearifolium</i>	White-haired Panic-grass	S2	GNR
<i>Diphasiastrum tristachyum</i>	Ground-cedar	S3	G5
<i>Dryopteris fragrans</i>	Fragrant Shield Fern	S3S4	G5
<i>Dulichium arundinaceum</i>	Three-way Sedge	S2	G5
<i>Eriocaulon aquaticum</i>	White-buttons	S1	G5
<i>Galium aparine</i>	Cleavers	SU	G5
<i>Gentiana rubricaulis</i>	Closed Gentian	S2S3	G4?
<i>Glyceria canadensis</i>	Rattlesnake Grass	S1	G5
<i>Glyceria pulchella</i>	Graceful Manna Grass	S2	G5
<i>Goodyera tessellata</i>	Tesselated Rattlesnake Plantain	S2	G5
<i>Gymnocarpium jessoense</i>	Northern Oak Fern	S3S4	G5
<i>Heteranthera dubia</i>	Water Star-grass	S2	G5
<i>Hudsonia tomentosa</i>	False Heather	S3	G5
<i>Huperzia lucidula</i>	Shining Club-moss	S1	G5
<i>Huperzia selago</i>	Mountain Club-moss	S2S3	G5
<i>Juncus interior</i>	Inland Rush	S1	G4
<i>Juncus vaseyi</i>	Big-head Rush	S4?	G5?
<i>Leersia oryzoides</i>	Rice Cutgrass	S3?	G5
<i>Leucophysalis grandiflora</i>	Large White-flowered Ground-cherry	S3	G4?
<i>Lobelia dortmanna</i>	Water Lobelia	S2	G4G5
<i>Lycopodiella inundata</i>	Bog Club-moss	S1	G5
<i>Lycopodium clavatum</i> var. <i>clavatum</i>	Running-pine	S2	G5TNR
<i>Megalodonta beckii</i>	Water-marigold	S3	G4G5
<i>Myriophyllum alterniflorum</i>	Water-milfoil	S2?	G5
<i>Myriophyllum farwellii</i>	Farwell's Water-milfoil	S1	G5
<i>Nymphaea odorata</i> ssp. <i>odorata</i>	Fragrant Water-lily	S2	G5T5
<i>Onoclea sensibilis</i>	Sensitive Fern	S3S4	G5

Species of Conservation Concern in the Lac Seul Upland Ecoregion			
Scientific Name	Common Name	S Rank	G Rank
<i>Osmunda claytoniana</i>	Interrupted Fern	S3	G5
<i>Platanthera hookeri</i>	Hooker's Orchid	S2	G4
<i>Platanthera orbiculata</i>	Round-leaved Bog Orchid	S3	G5
<i>Potamogeton amplifolius</i>	Large-leaved Pondweed	S2?	G5
<i>Pyrola americana</i>	Round-leaved Pyrola	S2	G5
<i>Rhynchospora alba</i>	White Beakrush	S3?	G5
<i>Sagittaria rigida</i>	Sessile-fruited Arrowhead	S2	G5
<i>Schoenoplectus subterminalis</i>	Water Bulrush	SU	G4G5
<i>Taxus Canadensis</i>	Canada Yew	S3	G5
<i>Torreyochloa pallida</i> var. <i>fernaldii</i>	Pale Manna Grass	S2	G5T4Q
<i>Vaccinium caespitosum</i>	Dwarf Bilberry	S3	G5
<i>Viola selkirkii</i>	Long-spurred Violet	S2	G5?
Vertebrate Animal			
<i>Strix varia</i>	Barred Owl	S4B	G5
<i>Ambystoma laterale</i>	Blue-spotted Salamander	S3S4	G5
<i>Ardea Herodias</i>	Great Blue Heron	S4S5B	S5
<i>Caprimulgus vociferous</i>	Whip-poor-will	S3B	G5
<i>Chelydra serpentina serpentina</i>	Common Snapping Turtle	S3	G5T5
<i>Chordeiles minor</i>	Common Nighthawk	S3B	G5
<i>Condylura cristata</i>	Star-nosed Mole	S3	G5
<i>Contopus cooperi</i>	Olive-sided Flycatcher	S3S4B	G4
<i>Coregonus zenithicus</i>	Shortjaw Cisco	S3	G3
<i>Coturnicops noveboracensis</i>	Yellow Rail	S3S4B	G4
<i>Cygnus buccinators</i>	Trumpeter Swan	S1S2B	G4
<i>Ichthyomyzon castaneus</i>	Chestnut Lamprey	S3S4	G4
<i>Lithobates clamitans</i>	Green Frog	S1S2	G5
<i>Lithobates pipiens</i>	Northern Leopard Frog	S4	G5
<i>Lithobates septentrionalis</i>	Mink Frog	S3	G5
<i>Notropis percobromus</i>	Carmine Shiner	S2	G5
<i>Parula Americana</i>	Northern Parula	S3B	G5
<i>Phalacrocorax auritus</i>	Double-crested Cormorant	S5B	G5
<i>Rangifer tarandus caribou</i>	Caribou	S2S3	G5T4
<i>Wilsonia Canadensis</i>	Canada Warbler	S4B	G5

G – global; S – subnational; SNR/GNR - a species not ranked; SU – possibly in peril, but status uncertain; T - rank for subspecific taxon; Q - taxonomic questions or problems involved; B - breeding status of a migratory species; N - non-breeding status of a migratory species; ? - inexact or uncertain.

1 - Very rare throughout its range or in the province (5 or fewer occurrences, or very few remaining individuals). May be especially vulnerable to extirpation.

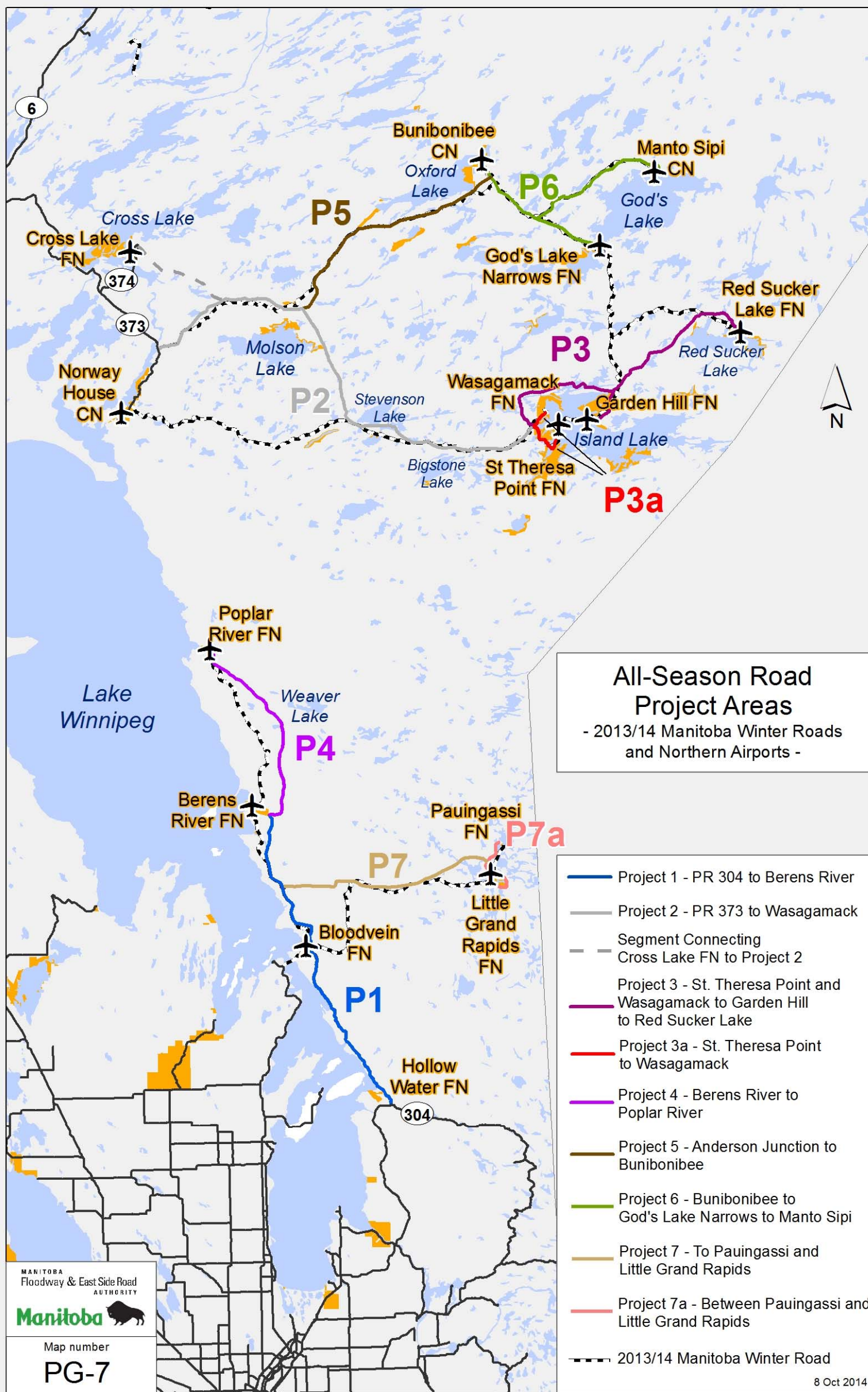
2 - Rare throughout its range or in the province (6 to 20 occurrences). May be vulnerable to extirpation.

3 - Uncommon throughout its range or in the province (21 to 100 occurrences).

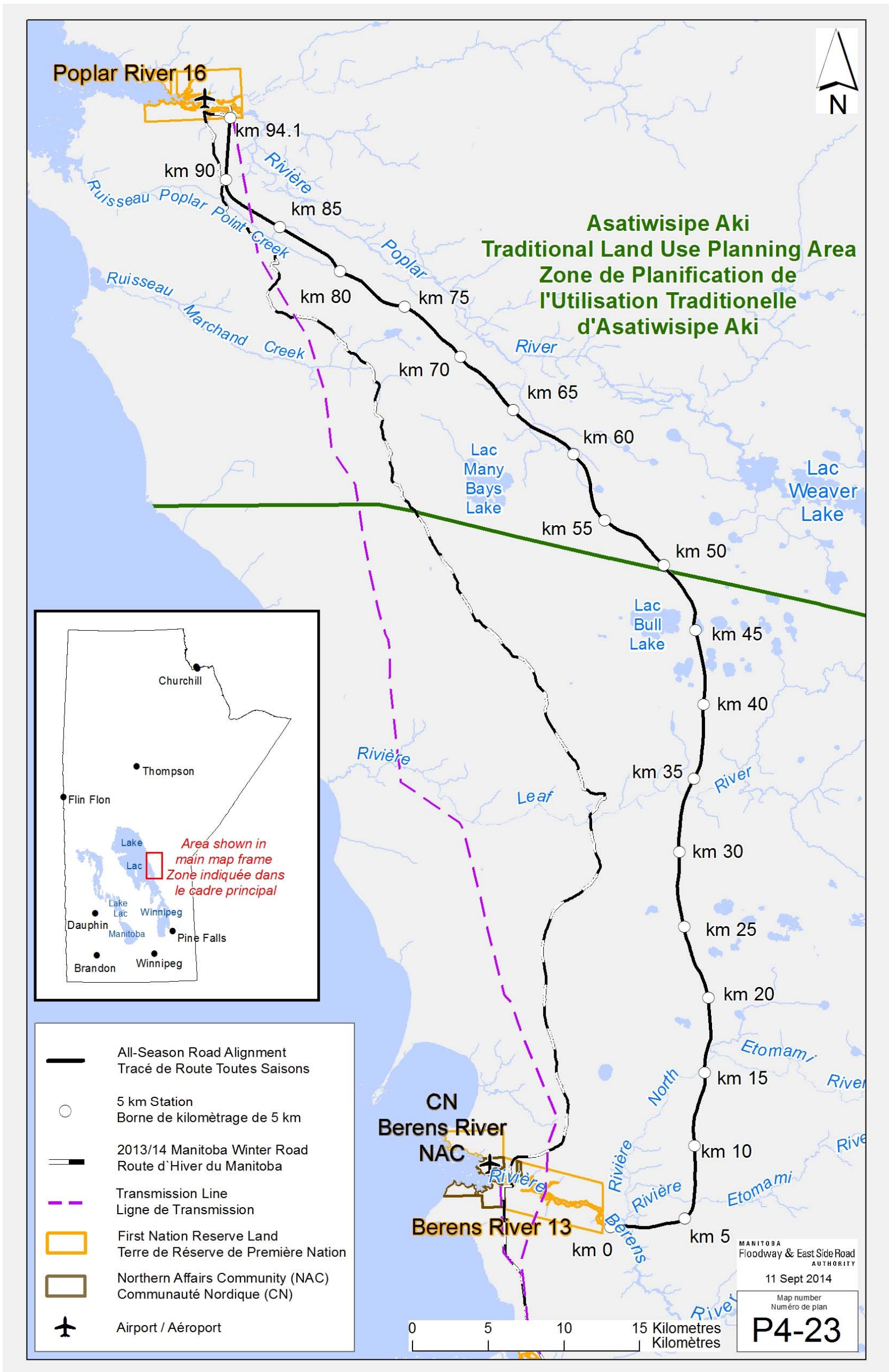
4 - Widespread, abundant, and apparently secure throughout its range or in the province, with many occurrences, but the element is of long-term concern (> 100 occurrences).

5 - Demonstrably widespread, abundant, and secure throughout its range or in the province, and essentially irradicable.

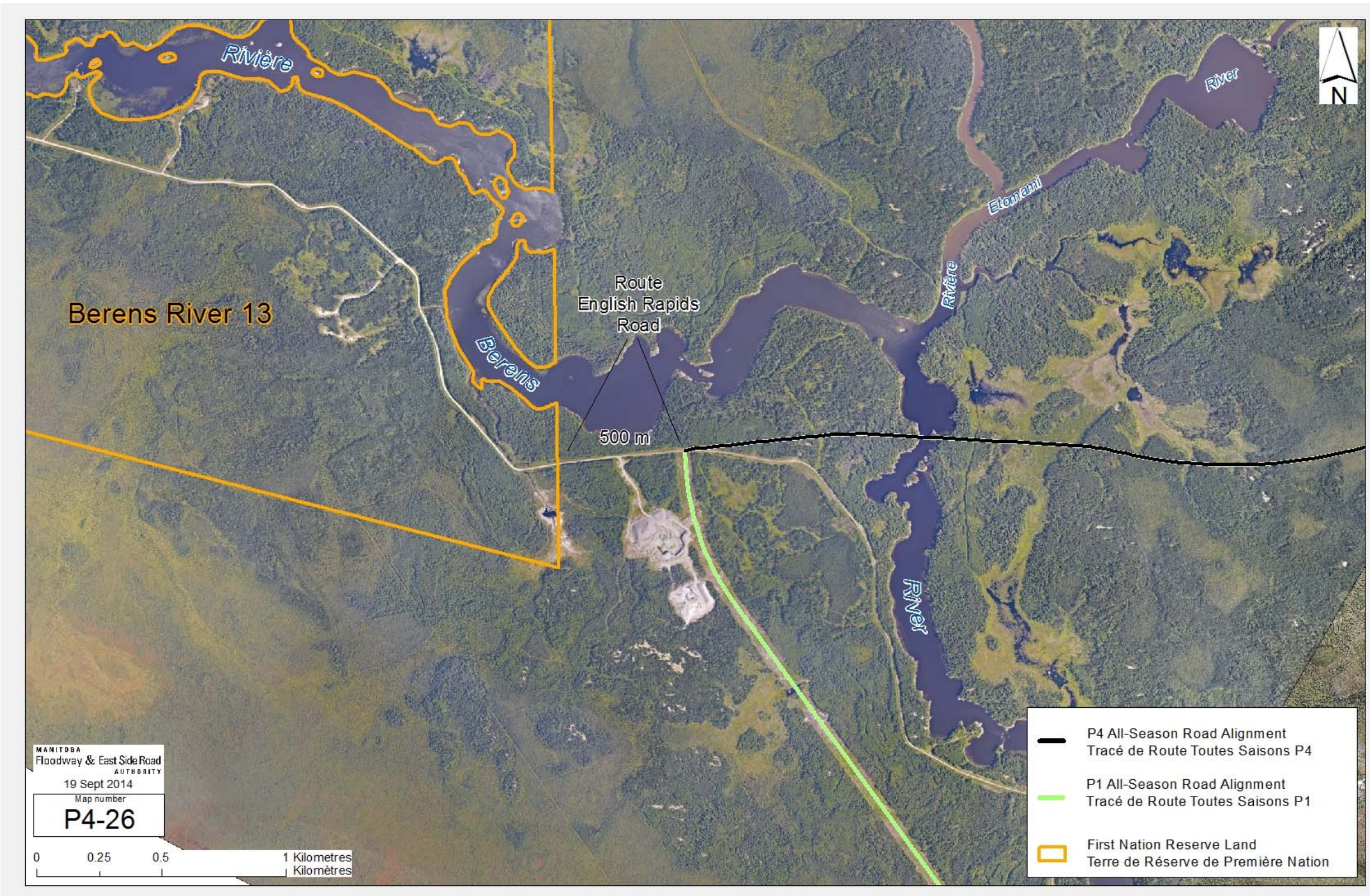
MAPS



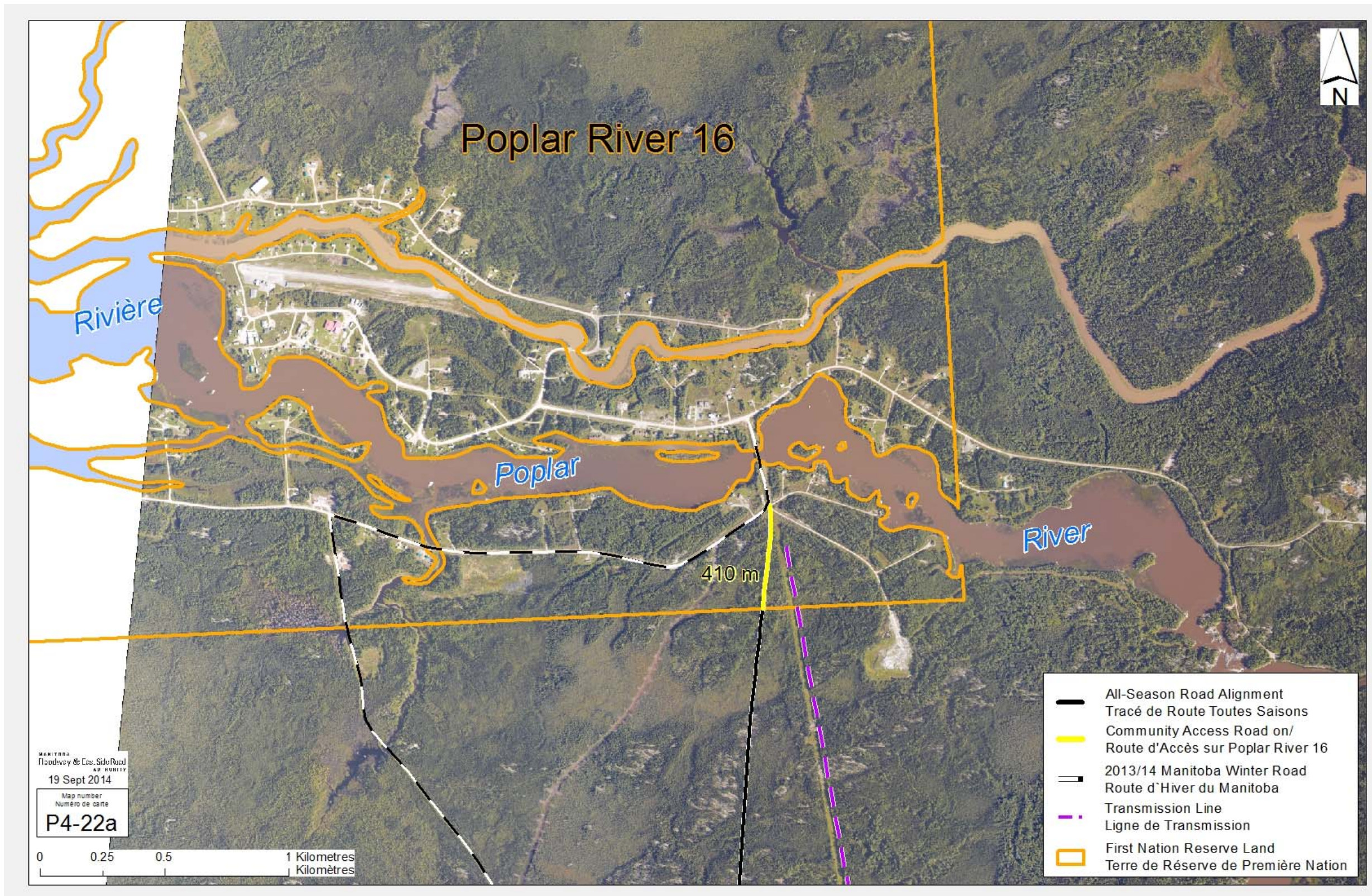
Map 1: All-Season Road Project Areas for East Side Transportation Network



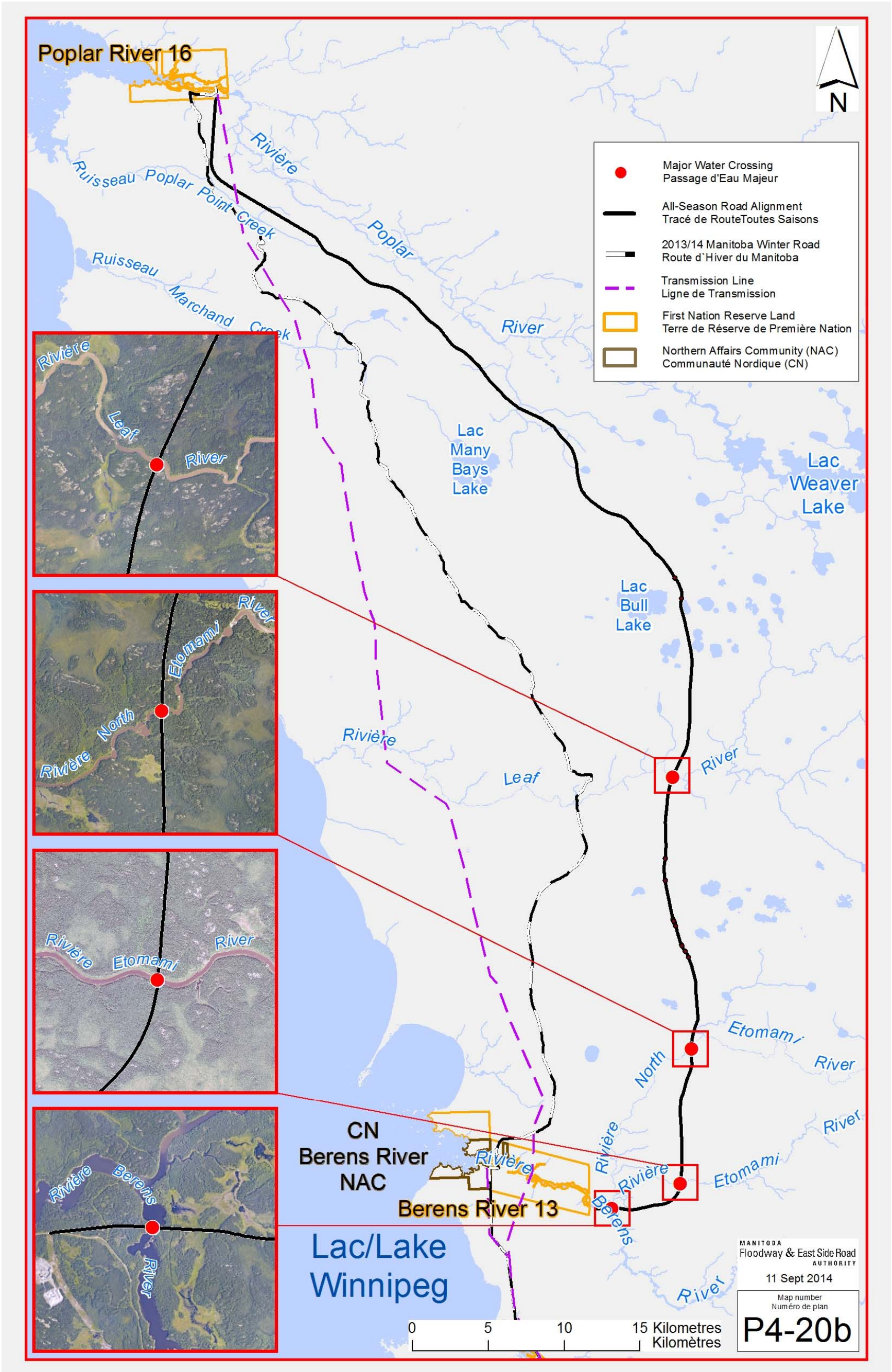
Map 2: Project P4-All Season Road from Berens River to Poplar River First Nation



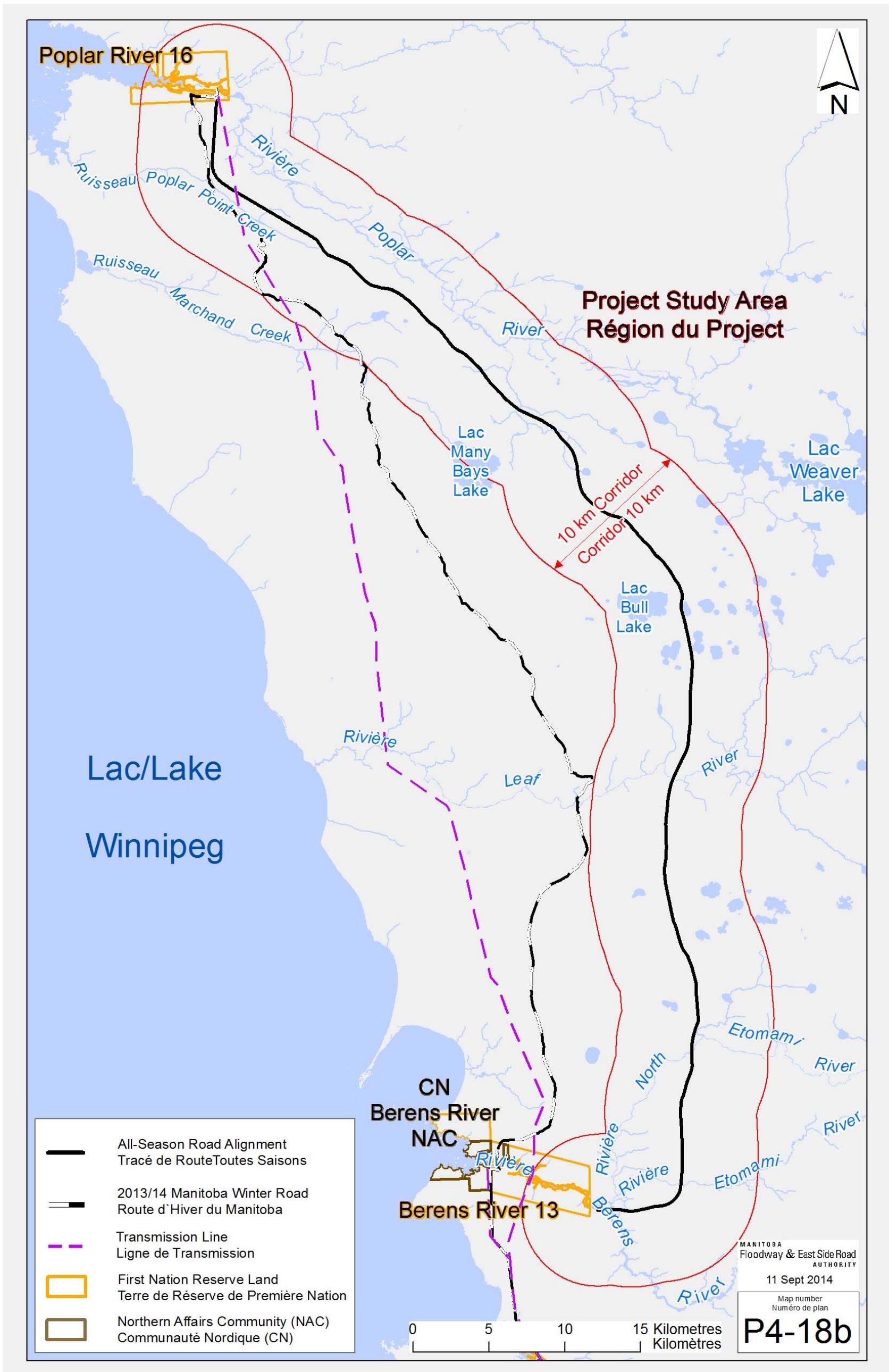
Map 3: Southern terminus of P4 alignment near Berens River First Nation



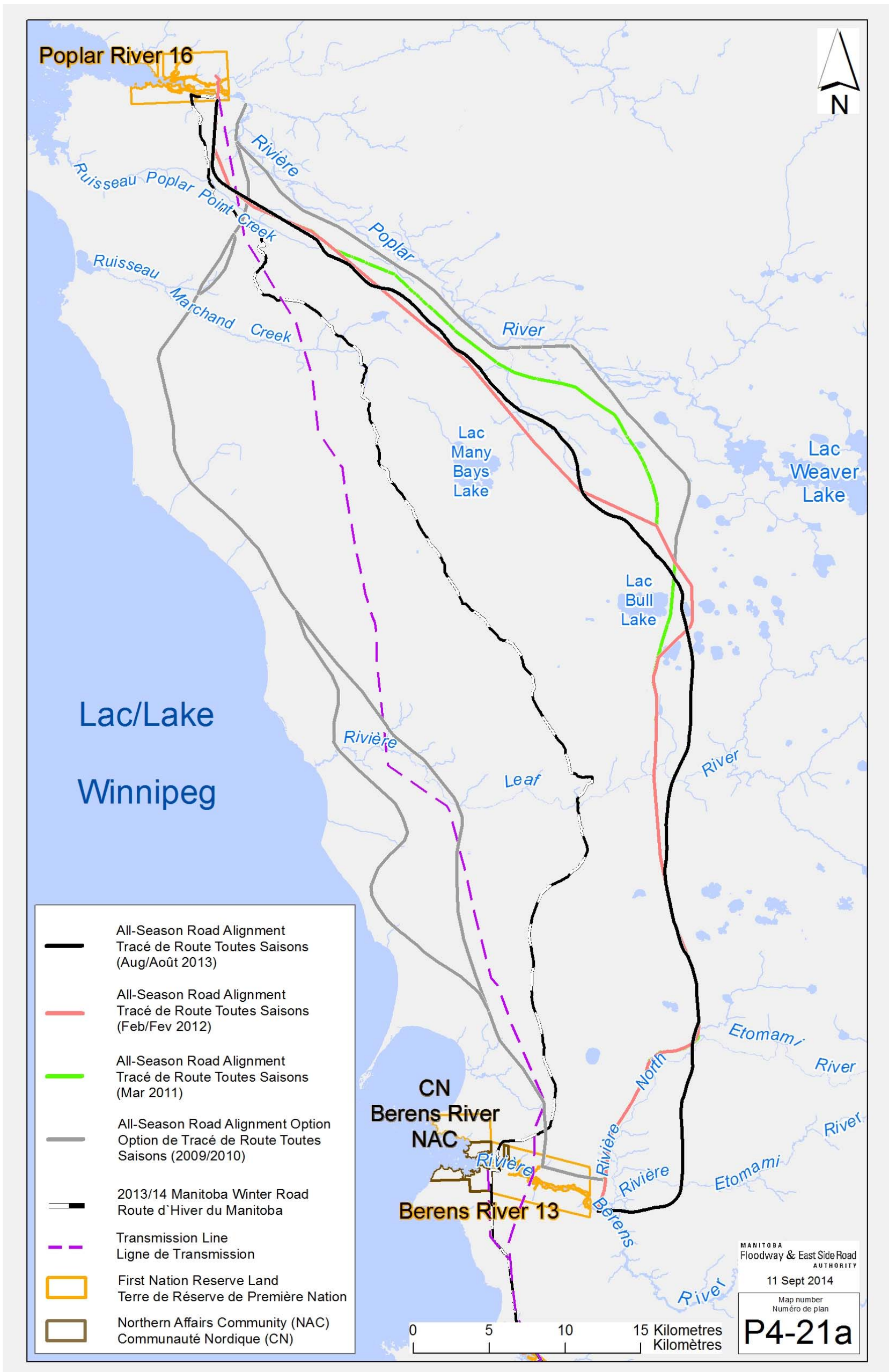
Map 4: Northern Terminus of P4 alignment at junction with Community Access Road at Poplar River First Nation Reserve



Map 5: Major Water Crossings (bridges) along P4-All Season Road Alignment



Map 6: Local Project Study Area for Project P4-All Season Road



Map 7: History of proposed alignments for Project P4-All Season Road

ATTACHMENTS

Attachment 1

Band Council Resolution:
Berens River First Nation,
May 13, 2013

BAND COUNCIL RESOLUTION

Chronological no.
File reference no.

NOTE: The words "from our Band Funds" "capital" or "revenue", whichever is the case, must appear in all resolutions requesting expenditures from Band Funds.

The council of Berens River First Nation			Cash free balance	
Date of duly convened meeting:			Capital account \$ _____	
WINNIPEG	D-J 2 8 0	M 5 1	Y-A 3	Revenue Account \$ _____
			MANITOBA	

DO HEREBY RESOLVE:

WHEREAS Chief and Council of Berens River First Nation is aware of the current proposal to connect the Community of Poplar River First Nation with the community of Berens River First Nation, Bloodvein First Nation and PR304 by an all-season road. The route will connect to the segment already under construction from PR304 to Berens River under Environment Act License #2929 with a new segment connecting north from the Berens River to Poplar River First Nation.

WHEREAS the Manitoba Floodway and East Side Road Authority (ESRA) on behalf of the Province of Manitoba have conducted road routing assessments for an all-season road from Berens River First Nation to Poplar River First Nation.

WHEREAS Chief and Council of Berens River First Nation requests the ESRA relocate the proposed corridor alignment away from the North Etomami River, to protect the traditional community hunting areas along North Etomami River.

WHEREAS The proposed corridor revision to the all-season road from Berens River First Nation to Poplar River First Nation is shown on attached image.

THEREFORE BE IT RESOLVED THAT we, the council of Berens River First Nation:

- Support the proposed road corridor from the Berens River First Nation to Poplar River First Nation as presented in the attached image;
- Will work with the ESRA with the purpose of refining the road alignment within the proposed corridor;
- Will facilitate pre construction work, environmental investigation and community engagement activities to support the selection of a final alignment and the environmental approvals of all all-season road from Berens River First Nation to Poplar River First Nation linking with an all-season road from Berens River First Nation to PR304 including but not limited to access through that reserve and traditional use areas for:
 - Reconstruction activities such as surveying, geotechnical investigation, exploratory and centre line clearing;
 - Environmental baseline studies and monitoring such as archeological, wildlife, vegetation and aquatic surveys and field investigations; and
 - Community engagement activities such as traditional knowledge surveys, elder and resource meetings and community meetings.

Quorum 4

 Councillor George Green	 Chief George Kemp	 Councillor Hartley Everett	 Councillor Gerald Kemp
_____ Councillor Roland Whiteway (Councillor)	_____ Councillor Joan Jack (Councillor)	_____ (Councillor)	

FOR DEPARTMENTAL USE ONLY - RÉSERVÉ AU MINISTÈRE					
Expenditure - Dépenses	Authority (Indian Act Section) Autorité (Article de la Loi sur les Indiens)	Source of funds Source des fonds <input type="checkbox"/> Capital <input type="checkbox"/> Revenue Revenu	Expenditure - Dépenses	Authority (Indian Act Section) Autorité (Article de la Loi sur les Indiens)	Source of funds Source des fonds <input type="checkbox"/> Capital <input type="checkbox"/> Revenue Revenu
Recommending officer - Recommandé par _____ Signature _____ Date _____			Recommending officer - Recommandé par _____ Signature _____ Date _____		
Approving officer - Approuvé par _____ Signature _____ Date _____			Approving officer - Approuvé par _____ Signature _____ Date _____		

BAND COUNCIL RESOLUTION

Chronological no.
File reference no.

NOTE: The words "from our Band Funds" "capital" or "revenue", whichever is the case, must appear in all resolutions requesting expenditures from Band Funds.

The council of Berens River First Nation				Cash free balance
Date of duly convened meeting:				Capital account \$ _____
WINNIPEG	D-J 2 8 0	M 5 1	Y-A 3	Revenue Account \$ _____
				MANITOBA

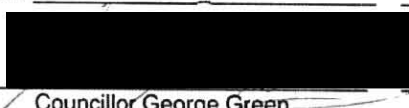

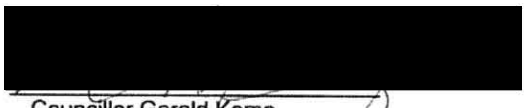
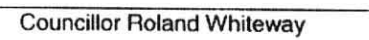
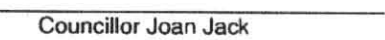
DO HEREBY RESOLVE:

- WHEREAS** Chief and Council of Berens River First Nation is aware of the current proposal to connect the Community of Poplar River First Nation with the community of Berens River First Nation, Bloodvein First Nation and PR304 by an all-season road. The route will connect to the segment already under construction from PR304 to Berens River under Environment Act License #2929 with a new segment connecting north from the Berens River to Poplar River First Nation.
- WHEREAS** the Manitoba Floodway and East Side Road Authority (ESRA) on behalf of the Province of Manitoba have conducted road routing assessments for an all-season road from Berens River First Nation to Poplar River First Nation.
- WHEREAS** Chief and Council of Berens River First Nation requests the ESRA relocate the proposed corridor alignment away from the North Etomami River, to protect the traditional community hunting areas along North Etomami River.
- WHEREAS** The proposed corridor revision to the all-season road from Berens River First Nation to Poplar River First Nation is shown on attached image.

THEREFORE BE IT RESOLVED THAT we, the council of Berens River First Nation:

- Support the proposed road corridor from the Berens River First Nation to Poplar River First Nation as presented in the attached image;
- Will work with the ESRA with the purpose of refining the road alignment within the proposed corridor;
- Will facilitate pre construction work, environmental investigation and community engagement activities to support the selection of a final alignment and the environmental approvals of all all-season road from Berens River First Nation to Poplar River First Nation linking with an all-season road from Berens River First Nation to PR304 including but not limited to access through that reserve and traditional use areas for:
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 - Environmental baseline studies and monitoring such as archeological, wildlife, vegetation and aquatic surveys and field investigations; and
 - Community engagement activities such as traditional knowledge surveys, elder and resource meetings and community meetings.

Quorum 4

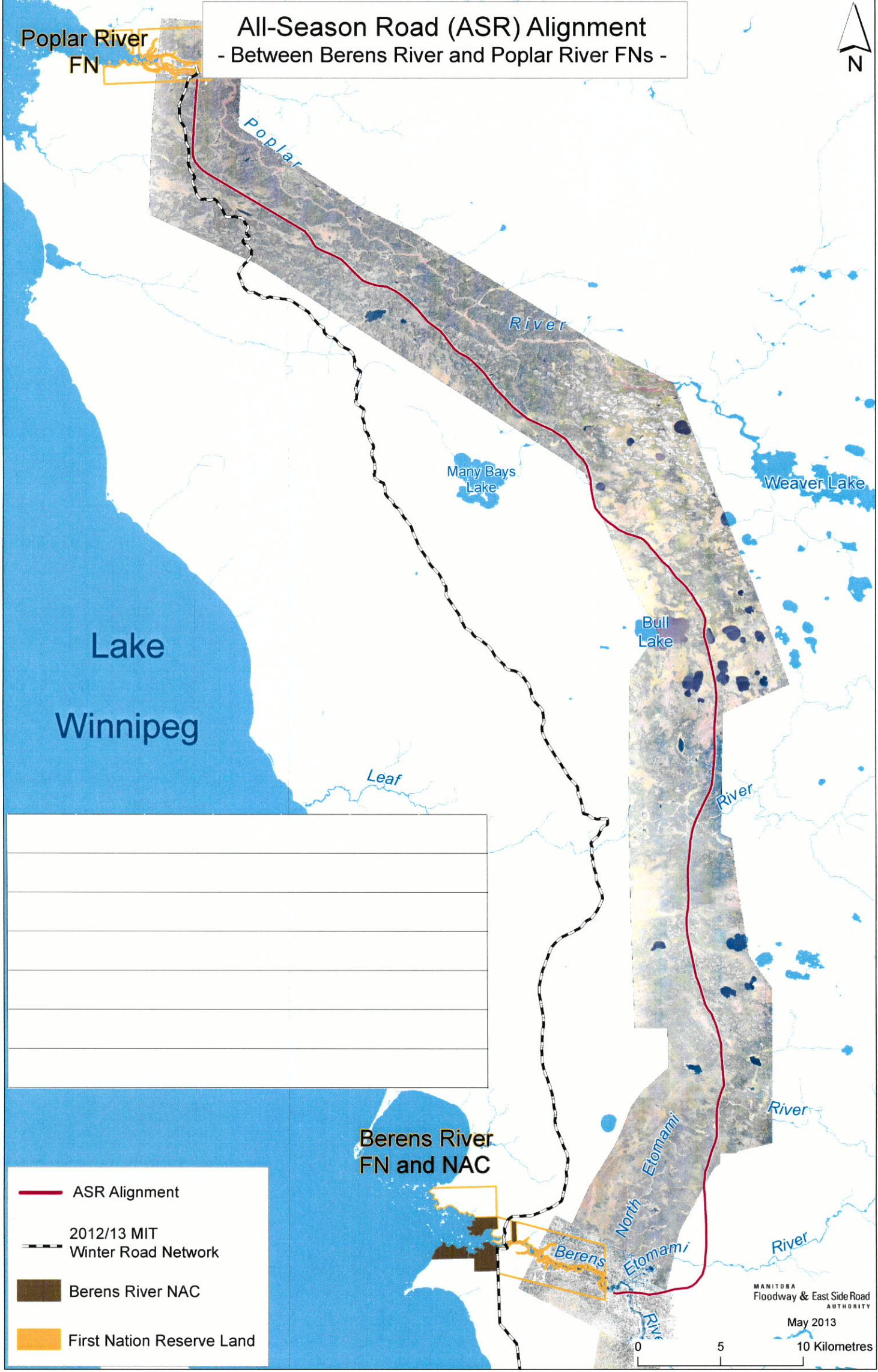
 Councillor George Green	 Chief George Kemp	 Councillor Gerald Kemp
 Councillor Roland Whiteway (Councillor)	 Councillor Joan Jack (Councillor)	_____ (Councillor)

FOR DEPARTMENTAL USE ONLY - RÉSERVÉ AU MINISTÈRE

Expenditure - Dépenses	Authority (Indian Act Section) Autorité (Article de la Loi sur les Indiens)	Source of funds Source des fonds <input type="checkbox"/> Capital <input type="checkbox"/> Revenue Revenu	Expenditure - Dépenses	Authority (Indian Act Section) Autorité (Article de la Loi sur les Indiens)	Source of funds Source des fonds <input type="checkbox"/> Capital <input type="checkbox"/> Revenue Revenu
Recommending officer - Recommandé par _____ Signature Date			Recommending officer - Recommandé par _____ Signature Date		
Approving officer - Approuvé par _____ Signature Date			Approving officer - Approuvé par _____ Signature Date		

Poplar River
FN

All-Season Road (ASR) Alignment - Between Berens River and Poplar River FNs -



Berens River
FN and NAC

-  ASR Alignment
-  2012/13 MIT Winter Road Network
-  Berens River NAC
-  First Nation Reserve Land

MANITOBA
Floodway & East Side Road
AUTHORITY
May 2013
0 5 10 Kilometres

Attachment 2

Band Council Resolution:
Poplar River First Nation,
Dec 6, 2013

Poplar River First Nation

Poplar River, Manitoba
P.O. Box 90, ROB 0Z0

Phone: (204) 244-2267
Fax: (204) 244-2690



December 6, 2013

Michal Kubasiewicz
Chief Operating Officer
Crown Lands and Property Agency
308-25 Tupper Street North
Portage La Prairie, MB.
R1N 3K1

Dear Sir:

Re: Proposed Center Line Clearing – Poplar River First Nation

We are writing to advise that the Poplar River First Nation is aware of a current proposal for clearing and site investigations in our traditional territory to support design and assessment of a potential all season road that would connect with the PR 304 to Berens River All Season Road currently being constructed.

The activities include, but are not limited to, timber clearing and harvesting, surveying, geotechnical and other investigations.

The applications may be pursuant, but not limited to The Crown Lands Act.

Poplar River First Nation has identified no significant adverse infringements on treaty or Aboriginal Rights in relation to these specific activities and does not seek Section 35 Consultation in relation to government decisions for these activities.

Sincerely,

[Redacted Signature]
Chief Clifford Bruce

[Redacted Signature]
Councillor Irvin Franklin

[Redacted Signature]
Councillor Boniface Hudson

Councillor Langford Mason

c.c. Ernie Gilroy, CEO MFESRA

[Redacted Signature]
Councillor Emile Mason

[Redacted Signature]
Councillor Guy Douglas

[Redacted Signature]
Councillor Roy Bittern

