EAST SIDE LAKE WINNIPEG TRANSPORTATION INITIATIVE

ISSUE THREE 2011

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Transportation Study Recommends All-Season Road Network for East Side of Lake Winnipeg

To improve transportation and connect the remote and isolated communities on the east side of Lake Winnipeg, the Government of Manitoba is moving forward with plans to create an all-season road (ASR) network in the region.

The existing transportation system within the region consists of a seasonal public and private winter road system and air and ferry service. In recent years, due to changes in weather patterns, the winter road system has become increasingly unreliable, resulting in many challenges for local residents.

To address this situation and to improve transportation in the region, the Government of Manitoba tasked the East Side Road Authority (ESRA) to manage the East Side Transportation Initiative (ESTI), a major transportation infrastructure project that will provide improved, safe, and more reliable transportation services between all of the communities on the east side of Lake Winnipeg and the rest of the province. Two key components of ESTI include:

1. Construction of an all-season road from PR 304 past Bloodvein to the Berens River; and
2. The East Side Large Area Transportation Network (LATN) Study

To date, construction has begun on the all-season road from PR 304 to the Berens River, while the LATN Study was recently completed and submitted to ESRA for consideration. This newsletter outlines the recommendation for an all-season road network for the region, including the final findings based on the technical and community input processes for the LATN Study.

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Large Area Transportation Network Study Update

In April, 2009, SNC-Lavalin Inc. (SNCL) was retained by the ESRA to undertake the LATN Study to review potential transportation options for the region. The recommended all-season road network is the outcome of a two-year study which used two parallel and interactive processes to identify a potential all-season road network in the region.

The technical process involved the identification of feasible all-season route alternatives based on important criteria including:

- Suitability of terrain;
- Natural environmental impacts;
- Protection of traditional land and resource uses; and
- Enhancement of opportunities for social and economic improvements.

The community input process involved:

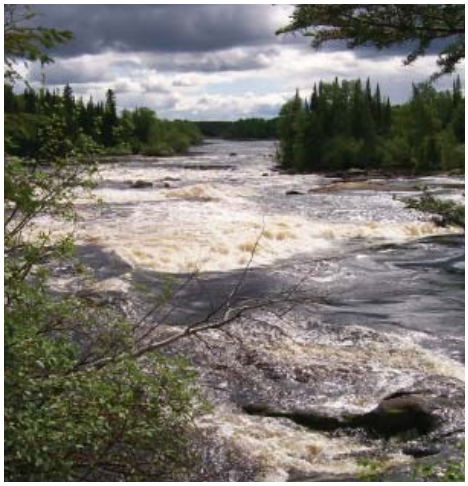
- Communicating with people living in the study region to gain their insights into network preferences;
- Identifying potential impacts associated with the development of an all-season transportation network; and
- Undertaking traditional ecological knowledge (TEK) studies to gather inputs from local residents on the environmental, social-economic and cultural implications of project development.

After the development of eleven route network options from the technical process, and community engagement through two rounds of meetings with all remote First Nations (FN) and Northern Affairs Communities (NAC), SNC Lavalin has identified a preferred all-season road network for the east side of Lake Winnipeg.

KEY HIGHLIGHTS

- Total Number of Isolated Communities Served: 15
  Poplar River FN, Little Grand Rapids FN, NAC, Pauingassi FN, Bunibonibee Cree Nation and NAC (Oxford House), Manto Sipi Cree Nation (God's River) FN, God's Lake FN, NAC, Garden Hill FN, St. Theresa Point FN, Red Sucker Lake FN, NAC, Wasagamack FN, Island Lake NAC;
- Current population served = 16,513 (including on reserve and NAC populations in the 15 isolated communities referenced above, but does not include Berens River FN, NAC, Hollow Water FN and Bloodvein FN);
- Total Length: about 872 km – to service the Northern, Central and Southern Communities;
- Operating Speed: 80 – 90 km/h;
- Provide a gravel surface with a top width range of 8 to 10 m;*
- Total Capital Cost: about $2.7 billion ($2010);
- The majority of communities in the northern portion of the region expressed their support for an east-west all-season road route;
- Approximately 80% of the recommended east-west route in the northern portion of the region follows existing winter road corridors;
- The recommended east-west route involves 200 to 250 km less travel for St. Theresa Point residents going to PR 373 near Sea Falls ferry north of Norway House, than if they were travelling to PR 304 near Manigotagan.
- Including the proposed ASR from PR 304 to the Berens River, it is estimated that the proposed network would:
  - Lower the freight costs of goods and essential supplies by 50% and the cost of medical transport by 40%;
  - Reduce green house gases caused by existing transport by 30%, with an estimated 16,000 tonnes per year of GHG reduction;
  - Save 6.10 million litres of fuel per year by shifting travel from air and winter roads to the all-season road system; and
  - Create 22,000 person years of direct employment, and approximately 15,000 person years of indirect and induced employment by construction of the all-season road system.

**10 m top width allows for future hard surfacing when warranted by traffic conditions*



The Recommended All-Season Road Network

As part of the LATN Study, based on information gathered through the technical and community input processes, SNC Lavalin is recommending an ASR network, as illustrated on the map insert, consisting of the following:

- A 648 km east-west route, rather than a longer north-south route, that involves a "Y" junction north of Molson Lake with branches going north-east to the God's Lake communities (Bunibonibee Cree Nation, Manto Sipi Cree Nation, and God's Lake First Nation), and south-east to the Island Lake communities (Red Sucker Lake, Garden Hill, Wasagamack and St. Theresa Point First Nations). For the western end of the route, the study is recommending that a link to Norway House Cree Nation be built initially, and that an all-season road to Cross Lake First Nation be considered for future construction.
- An approximate 131 km all-season road route linking Little Grand Rapids and Pauingassi First Nations to a midway point between Bloodvein and Berens River along the all-season road from PR 304 to Berens River First Nation, including a direct connection and access to the airport near Little Grand Rapids; and
- Extending the proposed all-season road from PR 304 to Berens River First Nation for approximately 93 km to Poplar River First Nation.

The recommended ASR network was developed based on the following considerations:

- **Community Preference** – The majority of northern sector communities expressed their preference for an east-west connection, and the central and southern communities expressed their desire to be connected to the south via the proposed PR 304 to Berens River ASR Project.
- **Proximity to Existing Social Services** – A major advantage within the northern sector of connecting the east-west ASR network to PR 373 is providing closer and timelier access to existing social services in Norway House such as the regional hospital.
- **Relationship to Existing Winter Road Corridors** – Approximately 80% of the east-west route in the northern sector is located within the same general corridor as existing public or private winter roads. This proportion is significantly greater than it was for the other shortlisted option considered, which was less than 50%. Locating the ASR within existing winter road corridors is beneficial for the following reasons:
  - Minimizes new environmental impacts;
  - Facilitates permanent road and bridge construction; and
  - Enhances comfort and safety as it builds on existing driver familiarity with the corridors.
- **Constructability** – Higher constructability can be achieved if the ASR network is located within the same general corridor as the existing winter road system. The advantages of co-location include:
  - Better known terrain, and underlying soils;
  - Simpler construction staging, since the winter road can be used to import personnel, machinery and materials;
  - Less new environmental impacts since disturbances have already occurred.

As well, the extensive use of existing winter road corridors, with their known operating and environmental conditions; should facilitate engineering, as well as environmental approvals of the recommended ASR network.

- **Environmental Impacts and Mitigation** – All ASR network options will have some degree of impact on the environment. However, locating the ASR network in existing winter road corridors will help to reduce this impact. For example:
  - Locating the all-season road in existing winter road corridors, rather than through virgin forest, will minimize the impact on the boreal forest;
  - Since there are already a number of existing temporary bridges at water crossings encountered by the winter road system, use of existing winter road corridors will minimize the number of completely new water crossings needed. Every effort will be made at permanent bridge crossings to minimize span lengths, and to protect fisheries values by keeping in-water piers to a minimum.

Avoiding areas of high value habitat for terrestrial wildlife, such as Woodland Caribou, should reduce the impact on this species. Impact on Woodland Caribou was estimated by the Habitat Suitability Index (HSI), and it was found that the recommended route avoided the high HSI values south of Molson Lake, between Stevenson Lake and Norway House, while other options crossed this area.

All ASR network options within the study area crossed Areas of Special Interest (ASIs), as well as the Nelson, Echimamish and Hayes Rivers, which are all links in the Hayes Heritage River System. Care in the functional design and buffering of the ASR alignment will be necessary to avoid or minimize impacts on these heritage rivers, as well as on rare landforms or geologic formations within the ASIs.

Based on these considerations, the recommended east-west ASR route network has, compared with other options, the lesser probable impact on the environment, because it avoids areas with a high potential for Woodland Caribou, and it has potentially the least impact to boreal forest, with 80% of the alignment located within existing winter road corridors.

East-West vs. North-South ASR Networks

During Rounds 1 and 2 of the public engagement process, a total of eleven ASR route network options were presented to the public. Overall, feedback received from the northern sector communities indicated a strong preference to be connected to the west rather than south, while central and southern communities preferred connecting to PR 304 via the proposed Manigotagan (PR 304) to Berens River ASR.

In addition to community feedback, the recommended all-season road network was also supported by the following considerations:

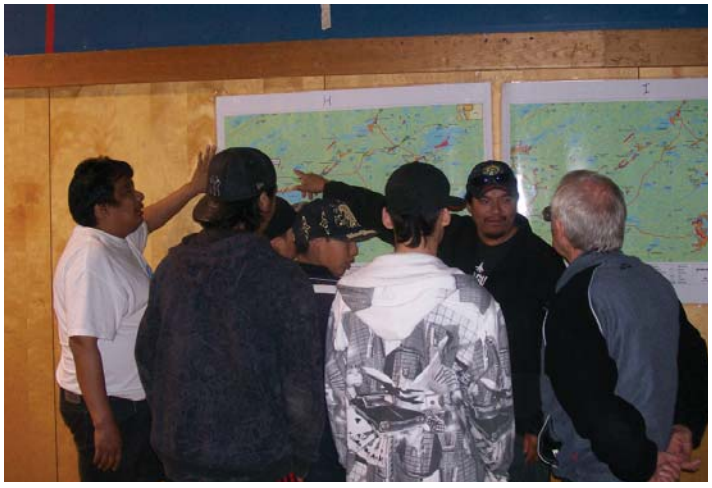
- **Reduce Construction Cost and Travel Time –** The lengths of new road construction and the travel distances are shorter with an east-west connection in the northern sector, compared to a north-south connection, resulting in reduced construction cost and reduced travel time to the nearest population and supply centres (Thompson as compared to Winnipeg, Cross Lake or Norway House as compared to Manigotagan). For example, a north-south ASR route from St. Theresa Point to PR 304 near Manigotagan would result in an additional 200 to 250 km of travel distance for St. Theresa Point residents, compared to travel via an ASR route to PR 373 near Sea Falls Ferry, north of Norway House.
- **Reduce Impact to the Natural Environment –** The region on the east side of Lake Winnipeg consists of a vast area with a fragile ecology. All north-south connection options would cross ecologically sensitive environment, including undisturbed boreal forest; endangered woodland caribou habitat; the existing Poplar River Provincial Park Reserve and the proposed UNESCO World Heritage Site.
- **Enhance Constructability –** North-south route options would pose significant construction challenges, having to cross extensive rocky outcrops, swamp and muskeg while the east-west route options can generally be located along areas with good foundations for road construction, as well as extensive availability of road building materials.
- **Achieve Earlier Completion Day –** Due to the shorter construction length, ASR linkage can be achieved sooner by going west rather than south.
- **Maintain Existing Strong Community Affiliations –** The main travel preferences and social relationships of members of the Northern Cree and Island Lake/Red Sucker Lake communities support an east-west connection to Cross Lake or Norway House, and subsequently to Thompson and Gillam.
- **Develop Travel and Trade Opportunities with both Winnipeg and Thompson –** Provision of an east-west connection provides options for travel to Winnipeg or to Thompson. A connection only to the south would be a barrier in the northern sector to Thompson travel, trade and economic development.

Public Engagement/Traditional Ecological Knowledge Studies

- Within the two-year study period, the Community Input Process developed by the Project Team provided extensive communication opportunities for people to receive information and provide their input into the study. In this manner, the study enabled the team to gain insights from the communities on their network preferences, as well as their views on the potential impacts associated with the development of an all-season transportation network.

The Community Input Process included the following key milestones:

- Round 1 of community meetings were conducted between March 2009 and January 2010. The Project Team visited, generally for a day at a time, all the remote communities within the LATN study area and achieved the following:
  - Started dialogue and provided information about the study;
  - Obtained feedback and documented what was heard;
  - Incorporated feedback into the study.
- During the initial round of engagement, in addition to the east side communities, meetings were held with the following stakeholder groups:
  - Wabanong Nakaygum Okimawin (WNO) Chiefs, April 30, 2009;
  - General public at an Open House in Winnipeg, June 25, 2009;
  - Manitoba Metis Federation (MMF), April 18, 2009 and December 09, 2009;
  - Manitoba provincial government agencies in Thompson, March 18, 2010.
- Traditional Ecological Knowledge (TEK) studies were completed at the majority of communities within the study area. These studies, co-ordinated by appointed community members, provided valuable input from the local residents which, in a consolidated form, is to be used in subsequent phases of the ASR network development to further scope its environmental, social-economic and cultural implications; to provide guidance in the specific location of ASR alignments; and to assist in the mitigation of environmental impacts.



KEY FINDINGS OF THE COMMUNITY INPUT PROCESS

- Round 2 of community meetings were conducted between May and June 2010 to present detailed findings of the short-listed ASR route network options. These incorporated the inputs received from the Round 1 meetings. The Project Team re-visited all the remote communities, generally for a day at time, within the LATN study area and achieved the following:
  - Presented the short-listed ASR networks overlaid on base maps;
  - Identified issues and opportunities along with potential mitigation measures relevant to the short-listed ASR networks; and
  - Shared the initial information obtained from the TEK studies with the communities

The detailed schedule for the Round 1 and Round 2 meetings are shown in the following table. In summarizing the outcomes of the public engagement it is noted that:

- Many valuable ideas were conveyed to the Project Team, including potential short term improvements;
- Community members attending the public meetings were overwhelmingly in support of being connected by an ASR to the existing Manitoba road system;
- The overall benefits of an ASR system were felt to outweigh any potential disadvantages; and
- Community members expressed a desire to begin construction of the ASR network as soon as possible.
- Community members expressed a desire to ensure that local communities participate in and benefit from the construction and maintenance of the ASR network: to generate jobs, training and economic development opportunities for local residents.

COMMUNITY ENGAGEMENT SCHEDULE

Community	Round One Community Meetings	Round Two Community Meetings
Hollow Water FN	March 30, 2009	Follow up meetings held in connection with PR 304 to the Berens River ASR Project
Bloodvein FN	March 31, 2009	
Berens River FN, NAC	May 5, 2009 July 6, 2009	
Poplar River FN	April 2, 2009 December 2, 2009	June 2, 2010
Little Grand Rapids FN, NAC	May 6, 2009 December 3, 2009	May 31, 2010
Pauingassi FN	May 7, 2009 December 3, 2009	June 1, 2010
Pimicikamak Cree Nation (Cross Lake), NAC	July 15, 2009	June 12, 2010
Bunibonibee Cree Nation and NAC (Oxford House)	July 13, 2009	June 11, 2010
Manto Sipi Cree Nation (God's River) FN	April 16, 2009	June 10, 2010
God's Lake FN, NAC	April 17, 2009	June 9, 2010
Garden Hill FN	June 1, 2009	June 7, 2010* June 15, 2010
St. Theresa Point FN	July 14, 2009	June 4, 2010
Red Sucker Lake FN, NAC	January 27, 2010	June 8, 2010
Wasagamack FN	June 2, 2009	June 3, 2010
Island Lake NAC	June 1, 2009	June 8, 2010

FN = First Nations, NAC = Northern Affairs Community

*Meeting with Chief and Council in Winnipeg

Recommendations/Next Steps:

- The Government of Manitoba should put in place procedures to protect the land required for future development of the ASR network.
- Conduct official consultations with the First Nations communities along proposed routes as required by regulatory guidelines.
- Consult the Governments of Canada, Manitoba, First Nations, the Manitoba Métis Federation, Northern Association of Community Councils, and key stakeholders for project concurrence and to secure funding for the next development phases of the project.
- Conduct functional design and environmental assessment studies and investigations to confirm the alignment for the routes within the ASR network.
- Prioritize and implement the phased development (functional design, detailed design and construction) of required new winter roads, including temporary and permanent ferries, as well as the permanent bridges and all-season roads, as guided by government policy and funding affordability.

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EAST SIDE LAKE WINNIPEG
TRANSPORTATION INITIATIVE

YOUR COMMENTS PLEASE

(Including your thoughts on the Large Area Transportation Network Study together with any additional comments on east side transportation.)

(Send to address overleaf)

Please let us know if you would like us to add your name to our mailing list. Any personal information you supply will be kept in confidence and used only for the East Side Transportation Initiative. Thank you.

NAME:

P.O. ADDRESS:

E-MAIL ADDRESS:

TEL: NUMBER:

FAX: NUMBER:

Please add me to your mailing list:

Yes ☐ No ☐

HOW TO CONTACT US

PROJECT WEBSITES

The East Side Road Authority (ESRA) Inc. has established a website to provide more information on the ESTI. The site can be accessed at www.eastsideroadauthority.mb.ca.

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