

## 1. Observed Changes

Community members from Barren Lands First Nation in Brochet indicated that they have noticed changes in the weather and ice conditions in and around their community in recent years.

### Seasonal Changes in Weather

Community members have noticed a gradual change in the climate in the last ten years. Winter seasons are shorter as fall lasts longer and spring comes earlier. There is now more fog. Winters are noticeably warmer, with fewer days below  $-40^{\circ}\text{C}$ . Additionally, there is a sense that snowfall patterns have changed. Snowstorms are less frequent than they used to be, but more snow falls during these storms.

### Water bodies

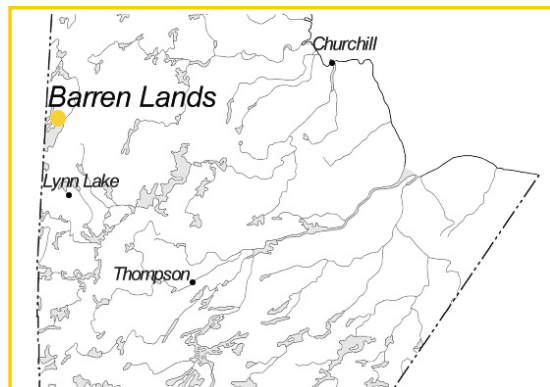
Brochet is located on the northeastern edge of Reindeer Lake. Water levels on the lake are fluctuating, but it has been higher in recent years than in the past. The fluctuating water levels cause ice shelves and ice ridges to form when the water freezes at different levels over the course of the winter. The water in the surrounding creeks, rivers, and lakes now freezes one to two months later in the season (or not at all in the case of some muskeg areas). The ice that eventually forms is thinner (2.5' feet thick) than in the past (3-4' thick), with cracks and greater amounts of slush.

### Winter Road and other trails

The changes observed with weather, ice thickness and quality have had minimal impact on the winter road that connects Brochet to Lynn Lake. The winter road was moved off of Reindeer Lake in 2000. Approximately 75% of the new road is on land. This route is longer, narrower and windier than the old one, but it also opens two to four weeks earlier. The road condition for the first couple of years was rough due to its establishment on a new route through the bush. These conditions are improving each year. There are concerns, however, that muskeg areas on the new route will become more problematic if the weather gets warmer. The quality of other non-winter road trails around the community is being degraded due to high slush levels.

### Animals

Community members identified changes in the number and availability of animals and plants in the area. For example, Elders described a decrease in the number of medicinal plants along the edge of the lake. Hunters and trappers indicated that there has also been a decrease in number of small animals (e.g. rabbits, muskrat, porcupines, and ptarmigans) in and around the community. Birds migrate earlier than they used to. Fishermen are finding that some fish species (e.g. walleye, lake trout, and pike) are found in different areas of the lake than they used to be. The health of these fish (e.g. lake trout) may also be a concern since the meat is now softer and seems to rot more quickly. The



## Quick Facts

On-Reserve Population: 394

Total Population: 914

Reserve Area: 4339.4

Winter Road Network from north to south:  
Brochet to Lynn Lake

Length: 108 km

Other local Networks:

Skidoo Trails out to traplines, Kinoosao and Lynn Lake.

Old winter route across Reindeer Lake.

Access to MB Hydro barge from Kinoosao to Brochet

Winter Activities: Trapping, hunting, snowshoeing, ice fishing, snowmobile, winter carnival

Summer Activities: Fishing, hunting, boating, swimming.

Users of the Winter Road: Community members, hunters, trappers, Northern store (supplies and fuel), school, nursing station, housing department, capital projects office (for any project), Manitoba Hydro.

Community Amenities: Northern Store, two small stores, school

Developments:

White Sand Rapids Dam (on Reindeer River at the south western edge of Reindeer Lake)

large animal species (e.g. caribou, wolves and bears), on the other hand, seem to be increasing in number, and some (e.g. caribou) seem fatter and healthier than in the past. There are now also a number of species (e.g. skunks, fishers, and racoons) that are new to the area entirely.

## 2. Perceived Causes

Individuals attributed changes being observed around the community to a number a number of factors. Fluctuating water levels and changing ice conditions on Reindeer Lake are thought to relate to the operation of White Sand Rapids Dam or as a result of climate change and holes in the ozone layer. Delayed freezing of water bodies and decreased ice thickness are believed to result from warmer winter temperatures.

Community members suggested that the milder temperatures have impacted animal populations by affecting their food supply and their migration patterns. Fluctuating water levels were thought to affect both animal and plant populations. For example, growing areas (i.e. habitat) for medicinal plants that grow along the edge of the lake are being flooded. Fluctuating water levels and the creation of ice shelves during the winter are thought to affect muskrat populations since they build their dens on the ice. When the ice shelf collapses or the water level changes suddenly, the muskrats are killed. New predators such as fishers may also be impacting porcupine populations.

## 3. Roles and Impacts

Since accessibility is important to various aspects of community life, the observed changes are affecting the lives of individuals of Barren Lands First Nation to varying degrees.

### Social / Cultural

The winter road allows community members to shop, visit, and participate in social gatherings (such as festivals and fishing derbies) in neighbouring communities and cities during the winter months. Since the road has been moved off Reindeer Lake and onto land, the winter road season has been longer and more reliable. Threats to the new land-based route (and hence the social activities of community members) are the continued warming trends and the problematic muskeg areas that do not freeze well.



Image 1: Edward Merasty a Barren Lands Councillor, hunter, trapper and guide.



Image 2: North East edge of Reindeer Lake, Brochet, Manitoba

Other trails around the community that cross the lake and rivers are important for participating in traditional pursuits such as hunting, trapping, and fishing. Since knowledge and skills are typically passed down from generation to generation (usually from the father to his children while out on the land), it is important that resource areas remain accessible. There is a fear that people are starting to lose their way of life.

### Financial Role

The winter road plays an important financial role in the lives of individuals within the community. The road is important for decreasing the cost of food, fuel, and other supplies in the community. When the road is open, the store can import goods by ground rather than by air, thereby decreasing their prices. For example, fuel costs approximately \$2.00/L when flown into the community, but only \$1.20/L when brought in by truck. Operation of the winter road also provides an opportunity for community members themselves to travel to larger centres (e.g. Thompson) to purchase and stock up on inexpensive groceries and supplies. Equipment for fishing, trapping and hunting is also brought into the community at that time.

Non-winter road trails also play a significant role as they allow community members to access their resource areas. Hunting, trapping, and fishing allow community members to generate a source of income and/or to supplement their diet and decrease their dependence on buying food at the Northern Store. This is important since approximately 90% of the community is unemployed. Using trails to access these areas has become increasingly difficult due to the high slush levels on the trails.

### Community Operations and Projects

Capital projects within the community are planned around the operation of the winter road. The road is used to bring in the supplies and equipment needed for construction and renovation activities (e.g. for buildings, houses, the water treatment plant, etc.).



Image 3: Snowmobiles are used for transportation within the community and to access trap lines.

### Personal Health and Safety

The changing ice conditions impact the personal safety and security of community members. Unpredictable ice conditions (including high slush levels and thinner, weaker ice) make it more dangerous to travel on trails that cross frozen water bodies. These conditions can damage skidoos and equipment, as well as increase the chances of falling through the ice. There have been a number of accidents (including some deaths) in the community related to falling through the ice. Accidents are happening to both experienced and non-experienced individuals, underscoring the current difficulties with reading ice conditions.

### 4. Strategies, Capacity, Barriers and Drivers

The community of Brochet does not have formal strategies in place for addressing climate change and other impacts to their environment. However, community members were able to describe a number of actions that are currently being used or could be taken to address some of the changes they are seeing.

#### Physical Infrastructure / Winter Road Construction

There were a number of ideas suggested for dealing with issues related to the construction of the winter road. The movement of the winter road off of Reindeer Lake and onto the land eliminated the impact that the thin and unreliable ice on Reindeer Lake was causing to the winter road. The new route still has its difficulties, however, as it crosses a number of muskeg areas, as well as some streams and rivers. To address these issues, community members recommended bringing in culverts (to lay down in water bodies) and gravel (to lay down as a stable foundation in the muskeg areas).

#### Financial

Some of the strategies used to address the financial pressures of living in the remote community of Brochet is to hunt, fish, and trap for subsistence and/or to generate an income. Difficulties travelling on the trails (due to high slush levels), a shorter season (one to two months shorter than in the past), decreased value of furs (e.g. lynx dropped from \$1,000 to \$150), damaged skidoos (from slush freezing on equipment), lack of mechanical expertise (to repair equipment), and increased costs (fuel, boats, motors, etc.) are all barriers to participating in these financially important

activities. There are concerns that future generations will no longer be able to generate income by hunting, fishing, and trapping.

Community members also used to share wild meat (e.g. moose and caribou) brought in from the land with other individuals in Brochet. This type of sharing was once common, but it is now rare.

About 10 years ago, grants were provided to trappers to offset the costs of their profession. The grants covered snowmobiles, cabins, trail maintenance, traps and required equipment. Without these grants, people have to work harder to continue with their way of life. Community members believe that more people would go out onto the land if they received assistance to cover the rising fuel and equipment costs. Currently, many families rely on the benefits from Employment Insurance or Social Assistance to supplement their seasonal commercial fishing and trapping income.

#### Access to goods and projects

Isolation of the community is a barrier for the community in implementing development projects. For example, limited operation of the winter road decreases the opportunity of the community to participate in large construction projects. The standby costs associated with bringing in specialty equipment (e.g. large-size pavers) and leaving them in the community during the summer months restricts the type of project that can be undertaken. For instance, the community was planning to construct a roller blading rink for the youth, but the high cost associated with bringing in the equipment prevented the project from happening. If the winter weather continues to warm and the winter road season shortens, this will further impact the community's funding of capital and construction projects. Transporting materials into the community by air cargo (at \$1.15 / kg) is prohibitively high.

Community members suggested that Barren Lands should also take advantage of opportunities to transport goods in the summer when the water is not frozen. For example, the community has access to a barge that is owned by Manitoba Hydro. The barge could travel from the eastern edge of the community to Kinoosao, which is accessible by an all-weather road to Lynn Lake and Thompson. The community should also investigate the possibility of buying and operating their own barge. This would allow them to determine how and when the barge is operated.



Image 4: Local Elder Sarazine Sewap grew up on her family's trapline, north of Brochet.

Community members currently rely upon their own resources (when possible) for adapting to changing accessibility within and around Brochet. For example, depending upon conditions and accessibility, individuals use different vehicles (e.g. skidoo, all-terrain vehicles, boats, planes) for their personal transportation around the community.

### **All-Weather Road and Alternative Transportation**

One of the strategies that have been suggested to address the isolation of the community is the construction of an all-weather road. There were meetings in the community in February/March of 2006 to outline possible involvement of Barren Lands in the Nunavut Road that is currently being discussed. This road is intended to connect Thompson, Churchill, and Rankin Inlet. However, a connection to the northwestern communities in Manitoba (including Brochet, Lac Brochet and Tadoule Lake) is also being discussed.

The construction of an all-weather route would increase tourism within the community and promote the growth of economic development projects. With reliable transportation routes and access to the community, various developments (such as a fish plant and a lodge) could be constructed to take advantage of the local resources. The all-weather road would also allow the youth of Barren Lands First Nation to participate in organized sports and other events outside of the community by making travel to neighbouring communities and cities more affordable.

There is general support in the community for the all-weather road. There are some concerns (particularly from Elders), however, that an all-weather road will lead to a greater number of traffic accidents and an increase in negative influences (such as drugs and alcohol, mining, forestry, etc.). However, people try to remain focussed on the positive influences that the all-weather road would have on their community. Lack of their own financial resources prevents the community from looking into the development of an all-weather road on their own. Therefore, the community is dependent upon efforts that are put forward by the government.

### **Training and Programs**

The Barren Lands Band Administrator would like to see outside contractors and services use the people and resources from within community for development projects. There are a lot of people within Brochet with the knowledge and experience in the required fields, but they do not have the paperwork (e.g. certification) to demonstrate their qualifications. Having internal expertise would allow Barren Lands First Nation to access funds and resources needed to train additional community members (rather than bringing in people from outside of the community).

It was also suggested that the community needs programs to ensure that the youth are provided with opportunities to learn about living on the land. Survival courses are currently available at the Barren Lands school (funding provided by NRC), but the training is provided in the classroom by non-

community members, rather than on the land. One individual suggested that Barren Lands should offer a modified program where community Elders, trappers, and hunters take youth out to resources areas for a month to learn the necessary survival skills (e.g. setting traps, processing furs, etc.) firsthand.

Lack of financial resources hinders the community's ability to provide training and certification programs such as those described above for the people of Barren Lands themselves.

### **Communication**

There are concerns that general community awareness about issues such as climate change and how to adjust to its impacts is quite low.

There is less communication amongst community members than there used to be. For example, people tend to head out onto the ice without talking to each other. People do not listen to the experienced regarding how to identify unsafe ice conditions (by using indicators such as colour, slush, etc.). This impacts the safety of all those travelling on the ice.

Community attendance at meetings, presentations, and workshops, in Barren Lands is low. As a result, it can be difficult to get information out to the community at large. Creative solutions are required to entice people to attend meetings. Recommendations included providing door prizes or coordinating discussions with the bingo night. In addition to community meetings, important information could also be communicated by displaying posters at the Northern store.

## **5. Roles and Responsibilities**

### **Community Members**

- Get informed
- Attend community meetings

### **Chief and Council**

- Listen to community members
- Understand the issues raised by the people
- Communicate with the government
- Act as a liaison
- Give the issues a political push by getting other organizations such as Assembly of Manitoba Chiefs (AMC), Manitoba Keewatinook Ininew Okimowin (MKO), and the local MLA involved
- Create programs

### **Government (Federal and Provincial)**

- Listen to people's concerns
- Lobby
- Provide funding