

Appendix B

Survey Results Chippewa County

Flooding: Please describe the extent and locations of any known flood damages or risks in your community, whether from a lake shoreline, from river, creek, or drain overflow, or from problems with area sewer systems.

SSM- flood risks are somewhat minimal. The St. Mary's River water levels are controlled, thus minimizing major flood problems. There are some minor flooding issues from time to time associated with the creeks that flow into the river. This latter problem is being addressed with a 25 year combined sewer overflow program which will eliminate most of these sewer problems.

Bay Mills – there is a potential for flooding on the north side and south side of the reservation. Although the situation had improved over the past ten years, due to much landfill, there is a possibility of flooding in people's yards due to the soil and wetlands they currently already exist. The north end is on the shores of the St. Mary's River which we have never known to flood, although there is the potential for such an occurrence.

Potential flooding from problems with Soo Locks.

Loss of lock gates, power plant dams, compensating works structure could result in downriver flooding

Unknown of any in the past.

Identified flood plains, especially on lower St. Mary's River. Septic systems subject to flooding – contamination of water. Combined sewer system overflow within city of SSM (currently being addressed.)

Whitefish Twp. – Lake Superior/Whitefish Bay shoreline (storm surge.)

Kinross Twp. - none

Rudyard Twp - none

Dafter Twp – no flood district

Wildfires: Please describe any known events or risks from wildfires in or near your community.

SSM – not a significant risk

Bay Mills – there is a much bigger threat of wildfires; the reservation still has many trees on the reservation as well as being adjacent to the US Forest.

Very low in area surrounding hospital.

Two areas on the east side of the Hiawatha National Forest that have a high potential for fire severity – one in Chippewa County located in Township 46 N, Range 5 W, T45N, R4W and T45NR5W. The main factor that makes these areas a high severity potential for wildfires is the continuous forest fuel type of jack and red pine. The frequency in these areas for large fire is approximately 1 large fire every 10 years.

A forest fire near Soldiers Lake, also near Fibre and northwest of Paradise in recent years.

Whitefish Twp. – High concern as primarily forested area.

Kinross Twp. - significant acres of forest land accessed by public – risk of fire increases during dry periods.

Rudyard Twp. - have had one major wild fire in the past few years.

Dafter Twp – none other than spring grass fires

Ground Movement: Please describe any events or known risks from earthquake activity, landslides, mudslides, erosion, or sink holes (such as that from collapsing mine tunnels).

SSM – not a significant risk

Bay Mills – although no known earthquake activity has occurred, the potential exists for landslides, mudslides and erosion along the shores of St. Mary's River or on the banks of the Back Bay. There are no known sink holes or old mines.

Ground movement could damage structures and cause flooding noted in 1 above.

Unknown erosion or ground movement risk.

Whitefish Twp. – none

Slumping in these clay soils is not uncommon and can uncover buried cables (as on the Pine several years ago).

Kinross Twp. - none

Rudyard Twp. - The Pine River has had a history of mud slides.

Dafter Twp - none

Severe Winter Weather: Please describe the potential impact of severe winter weather conditions on your community, including the extent possible snow, sleet and ice and accumulation, extremely cold temperatures, and their impact on people, structures, infrastructure, business and services.

SSM – The community is subjected to severe winter weather and high amounts of snowfall at times. If large amounts of snow accumulate over a short period, the City can be paralyzed for several days. While not common, an event of this magnitude did occur (Dec. 1995) several years ago resulting in the need for National Guard assistance.

Bay Mills – this has always been the greater threat to the community. The tribe must worry about roofs on people's housing due to the heavy snow accumulation, and assist if necessary for the senior citizens who are no longer capable of such physical labor. Annually people routinely fall on the icy conditions and break bones. Severe snow storms, icy roads and cold weather also impact the economic status of the Bay Mills Indian Community in regards to their gaming enterprises. Younger people experience financial stress due to high-energy costs. The other tribal businesses are also impacted, and require additional funds to maintain during severe winter weather.

Severe winter weather impacts the hospital, as staff cannot make it to work. Frequently, during severe weather, we will see an increase in trauma and heart-related illnesses. If we have a shortage of nursing staff, it stresses the system. We have also had incidences of ill patients calling an ambulance because the weather is too severe to drive themselves and the EMS providers are in jeopardy themselves. This hazard has the most impact on our business and service

Road closures have been necessary in recent years due to severe winter whiteout conditions.

Potential for freezing of water lines, both community and private. Severe condition can shut down our power plants due to anchor ice. This would result in lost electrical generation supply of around 20% of the eastern U.P. needs.

Whitefish Twp. – high probability – med to low impact; people know how to handle and prepare for winter here. Loss of commercial power a concern

Loss of electricity in the country would have a major impact on farms relying on it for watering of livestock particularly in the winter-frozen lines would not be repairable until spring.

Kinross Twp. - sheet and ice hazardous for travel and emergency vehicle responses are delayed – weight on electrical transmission lines can cause damage and area outages having serious consequences during cold weather due to lack of heat. Snow accumulation not an issue in this area.

Rudyard Twp. - severe weather can be a problem to supplying heating fuel. Snow and ice are potential safety hazards.

Dafter Twp – many roads are clay base and winter causes heaving

Severe Storms: Please describe the potential impacts of severe storms on your community, including the effects of heavy rains, hail, lightning, severe winds, and tornadoes; and their impact on people structures, infrastructure, business and services.

SSM – sever storms are occasional, and generally result in fallen trees and fallen power lines.

Bay Mills – The severest storms for our area occur in the winter months, commonly known as blizzards. These storms can literally close down schools, places of employment, drift side roads, and make going outside a hazard. Heavy rains, hail, lightning, and tornadoes have not been a major problem, although occasional high winds do damage.

Unable to get hospital staff here, as well as unable to care for large number of severely injured personnel.

Trees on roadways, washed out roads.

Electricity failure from severe weather would jeopardize water supply and sewage disposal; cause problems in keeping food refrigerated (commercial/private)

Sever storms could have a similar impact as that noted in item 4.

Whitefish Twp. – Impact mostly on commercial power – aerial plant. No power, no water (wells).

Kinross Twp. - severe storms hold the potential of damaging structures and utility transmission lines – which impacts municipal services.

Rudyard Twp. - heavy rains can affect the farming operations.

Dafter Twp. – normal weather related problems.

Technological Hazards: Please describe the potential impacts of industrial accidents or mishaps such as explosions, hazardous materials release, nuclear material incidents, accidents involving oil and gas wells and pipelines, structural fires, scrap tire fires, dam failures, or similar events.

Bay Mills – There is very little potential of industrial accidents, explosions, or hazardous materials release, as the tribe has no industry or hazardous sites. There are no oil, or pipelines for gas except for the tribal gas station. No tires for fires or dams or any other type of businesses that could be classed as hazardous to the community.

If someone is not deconned out in the field and presents to the ER requiring DECON – we currently cannot provide it. Our policy states that Sault fire will ? to decon – however they may be responding to the hazard themselves. We are currently working on plan that will allow us to decon.

Hazardous material release into environment may compromise drinking water supplies from groundwater or St. Mary's River – may compromise public health.

Hydro-electric power dam failure could result in downriver flooding as noted previously.

Whitefish Twp. – State Hwy through town. Concern with traffic accident (hazard material) in or near downtown.

Kinross Twp. - propane bulk storage tanks.

Dafter Twp. - none

Weather Patterns: Please describe how your community may be particularly affected by extreme summer heat, or by drought events.

Bay Mills – the tribe is in no danger of extreme summer heat or drought events.

Drought may lower aquifers, resulting in insufficient water supplies

Whitefish Twp. – drought sometimes cause concern for forest fires.

Kinross Twp. - summer heat and/or drought increase risks of forest fires.

Rudyard Twp. - the heat can be a burden on our elderly population. Drought conditions can affect gardening and farming in a negative way.

Dafter Twp. – normal weather conditions.

Human-Caused Incidents: Please describe how your community might be vulnerable to acts of terrorism, sabotage, or civil disturbances.

Bay Mills – Although any community could potentially be vulnerable to acts of terrorism, sabotage or civil disturbances, the tribe has been fortunate to date that no such incidences have occurred.

Load expansion – our ER has 7 beds with surge capacity and diversion capacity up to 40 pts or so. Beyond that, we would be vulnerable due to a shortage of caregivers, meds and ambulances.

Contamination of food/water supplies release of biological or chemical agent.

Disruption to power plants and locks could occur.

Whitefish Twp. – no real problem area.

Kinross Twp. - airports, rail and/or municipal services are the most vulnerable areas impacting a large number of persons.

Rudyard Twp. - very low probability

Dafter Twp – none

Public Health Emergencies: Please describe how your community might be particularly affected by conditions of disease outbreak, contamination, etc. that would threaten public health.

Bay Mills – the public health risk of communicable disease could potentially be wide spread due to the number of visitors to the casinos and community. Communicable diseases normally have a greater impact on the very young and elderly due to immune systems either not fully developed or depleting with age. With Bay Mills Head Start Program, Bay Mills Charter school and the Armella Parker Senior Center, the impact on these age groups during an outbreak could be devastating to the community.

Again, large influx of pts. To the ER and we may be unable to care for them without outside resources from the community and surrounding communities.

Proximity to border increases likelihood of incident. Possibility of importing diseases (SARS, MadCow) from Canada. Soo Locks may be target as well.

Whitefish Twp. – no real threat other than contamination of ground water (wells)

Kinross Twp. - Water contamination impacts the entire community.

Rudyard Twp. - same as any other

Dafter Twp. – little risk

Large Scale Emergency Event: Please describe any special concerns relating to your community if some large-scale event (such as an enemy military attack, nuclear explosion, asteroid impact, etc.) were to occur.

Bay Mills – A large scale emergency event would definitely have a devastating impact on Bay Mills. Although this could potentially occur, the likelihood of an enemy attack in the Brimly area seems very remote.

1) beds 2)staffing 3)medical supplies

International border may be destination for individuals fleeing an incident down state (or vice versa).

Disruption to power plants and locks could occur.

Whitefish Twp. – concern with forest fire- town bordered north and east by water, bordered south and west by forest – only two ways to get out.

All roads lead south – in the event of a need to evacuate the city- direction is limited.

Rudyard Twp. - our concerns would be food and shelter

Dafter Twp - none

Transportation Accidents: Please describe any special concerns or vulnerabilities your community might have from a larger-scale incident involving vehicles (aircraft, buses, ferries, ships, trains, etc.) carrying many passengers, or transporting hazardous materials.

Bay Mills – the Bay Mills Indian Community is particularly vulnerable to transportation of hazardous materials due to the St. Mary's River shipping channel as well as M-28 truck traffic. The potential of evacuating all residents is of particular concern. The ground water supply could become contaminated, causing a substantial public health risk.

We have no decon. Capabilities for hazardous material handling.

International border and Soo Locks funnel transported items, making it more likely to have an incident. (spill, crash, explosion)

Disruption to service of the locks could occur.

Whitefish Twp. – high concern for downtown accident.

Kinross Twp. - Aircraft incidents covered by airport emergency plan.

Rudyard Twp. - n/a

Dafter Twp. – I-75 and railroad runs through township.

Infrastructure Failure: Please describe the concerns, potential impacts, or vulnerabilities your community might have as a result of a breakdown in critical services, energy shortages, etc. that are necessary for the normal functioning of your community.

Bay Mills – if power, phone and gas lines were down in Bay Mills there could be a public health threat depending upon the length of time. Several facilities have emergency generators, which will operate for several hours allowing the majority of the population to have access to food and heated shelter. Bay Mills police department and Emergency Connection can communicate with the OES through radios, however, the general public would lack access.

Need electricity and water for patients care. Hospital cannot function without water immediately.

Electrical, water, sewage disposal infrastructure failure would all endanger public health.

Whitefish Twp. - as mentioned before – commercial power –no power – no water.

Kinross Twp. - energy outages are critical due to impact on heating, water (pumps), and emergency services operations.

Rudyard Twp. - same as any other

Dafter Twp – little problems.

Please identify which of the described hazards are the most threatening to your community.

Bay Mills – wildfires, severe winter weather, public health emergencies, transportation accidents, severe storms

Severe winter weather, Severe storms, public health emergencies, infrastructure failure – somewhat threatening – flooding, technological hazards, transportation accidents.

Kinross Twp. - infrastructure – utility outages are most critical, possible and life threatening.