

trails become blocked, disappear, or become too dangerous to travel it is recommended that new trails could be cleared where there is less potential to have hazards.

Travel by boat is also riskier due to low water levels, and community members need to be careful not to damage or capsize their boats. One relatively inexpensive strategy suggested to avoid low water levels in the rivers and lakes is to have a depth finder in the boat. In regard to bigger vessels traveling along the Mackenzie River, navigation routes are becoming more restricted each year, and it was suggested that regularly updated navigation maps are needed because of the fast pace that these routes are changing.

6.5. Exposure to Extreme Weather & UV-B Rays

Many of the initial adaptation strategies related to exposure to extreme weather and UV-B rays have been mentioned above, such as community education strategies and taking extra precautions and supplies when traveling. One other recommendation concerning extreme weather events is to have an early weather warning system of some sort in the community. Having small scale satellite weather stations in the community, and out at the 5 Lakes areas, would give our community more time to prepare for extreme weather, or to let our harvesters know the weather conditions before going out to harvest, or while out harvesting. Weather stations would also allow our community to collect weather related data over time for use in future research. A less expensive alternative to weather stations for an early weather warning system, but a less reliable one, is through local media such as the radio (Fort Simpson) or the internet.

6.6. Negative Impacts to Plants and Animals

Although many changes and impacts to plants and animals associated with climate change have been observed, the direct links are at times hard to elucidate, and when they are apparent developing an adaptation strategy that can be implemented at the community level is a difficult and complex undertaking requiring collaborative research efforts between our community and other communities, and with researchers from various fields. In the absence of collaborative efforts our community will continue to monitor and report on the changes in the weather and environment we are observing and experiencing, and adapt as best we can.

As a result of this project our community has identified four such studies that if conducted would help our community greatly in knowing why some environmental changes are happening, and how climate change is connected to these environmental changes, or not. These four studies include:

- Mapping of permafrost areas within the proximity of the community;
- A study on migratory birds that were once common to the area, and any changes in their habitats in the JMR area where they used to return to in the spring;
- More research is needed to identify the connections between a changing climate, melting permafrost, increased exposure to contaminants, deterioration of water quality, and any associated impacts to the ecosystem, and;
- A study to monitor and assess the spread of spruce budworm.

However, for these collaborative efforts to be organized and for these studies to be conducted this would require policy changes regarding how funding for taking action to address climate change impacts and related environmental issues is allocated by the Federal and Territorial governments; including resources for communities to conduct projects to address these issues at the local and regional levels.