

Sinking under the Negative Impacts of Manitoba Hydro

Hollow Water First Nation's Submission to the Clean Water Commission

Hydro development has negatively impacted Hollow Water First Nation without any compensation or reparation made to this community. First Nation chief and council and community members document the impacts of high water levels and large fluctuations in water levels in the film called "Sinking Under the Negative Impacts of Manitoba Hydro: Hollow Water First Nation's Submission to the Clean Water Commission". This film is available at <http://youtu.be/ph7Kw1LFWS4>.

We ask that you watch this short nine minute movie to hear the stories of the Hollow Water First Nation people about the: 1) flooding of housing and neighbourhoods; 2) wild rice economy destruction due to fluctuating water levels; 3) erosion of land and biota (trees, muskrat habitat and muskrats, etc.) due to high and fluctuating water levels; and 4) the perils faced by the fishing industry. The issues are summarized below but the voices of the eight people in the film provide the stories of impacts and require your attention and transcription. The issues identified in this short report briefly discuss hydro impacts as an accompaniment and to provide the background information to the testimonials of the people in the film.

1. Flooding of housing and neighbourhoods

Flooding of housing in the community creates mobility, electrical and mould risks to health and safety. Monica Seymour discusses how since 2010 (but never before to her memory and other people's memory) her neighbourhood and home has been flooded. Since that time, water levels have regularly reached very high levels that inundate the housing in the community whenever there is a sustained northern wind. Throughout the open water season Monica has to worry about flooding and be ready to evacuate her house. Evacuations over this period occur typically five to ten times a year. This risk requires Monica and her four children leave her home to protect them from the electrical/fire risk due to the high water. The water seeps into the crawl space under the house into the crawl space and wicks up the wall. It is well known that electrical equipment and wiring that has been exposed to water through flooding is dangerous if they are powered up without proper evaluation and reconditioning or replacement. In many cases the water has been contaminated with soil, debris and other substances. There are life-threatening risks of fire and shock hazards because of exposure to moisture and pollutants in floodwater. Sometimes the main road that connects the community to the outside world is also flooded inhibiting mobility and making it difficult to evacuate.

The flooding creates a situation where the growth of mould can occur whenever susceptible building materials are wet for long enough to allow the mould spores to germinate and multiply. Mould is occurring in housing in drywall, wood and wood products, and paper products in the house. Once the mould spores are formed, they are readily airborne and will remain a health hazard until the growth is removed. This is the case even when the mould growth is within wall cavities or other concealed locations. The most common symptoms reported from mould exposure in buildings are running nose, eye irritation, cough, nasal congestion, aggravation of asthma, headache and fatigue. There is also a risk of fungal respiratory infections in occupants who have a compromised immune system. There is no safe level of airborne mould exposure in buildings, that is, an airborne level without a risk of adverse health effects among at least some of the occupants. In her house, she has a young daughter with a disability that suffers most from these health risks but all family members are subjected to this unhealthy environment. Monica is doing what she can and has cut out the wet insulation in her walls year after year to limit mould growth and reduce her family's exposure to mould. Her house, shown in the film, is under construction from the most recent flooding when she again had to cut out the insulation and wet building material. She mentions her on-going work to cut out the insulation in her house in the film. This on-going flooding takes time and energy to rebuild her life again and again every year, with on-going evacuations and continuous renovations required.

Not only are neighbourhoods on the reserve at risk due to water inundation. The building constructed for the annual gathering at Black Island is in immediate danger from sand erosion due to high water levels with the beach there completely underwater.

2. Wild rice economy and food source destruction due to fluctuating water levels

Hollow Water First Nation's major food source and economy was wild rice but no more due to the annihilating impact of the fluctuating water levels. According to Garf Bushie the water fluctuations in Lake Winnipeg really decimated the abundant harvest of wild rice on rivers and lakes that were at similar elevations as Lake Winnipeg, as they too were flooded from the Lake Winnipeg higher water levels and their height went up several metres. He stated: "At one time in the past wild rice was abundant on the Wanipigow and Rice Rivers up to the first rapid bridges, as well as some bays on Lake Winnipeg, Clangula Lake on Wanipigow River. Certainly there is some bearing." The decimation of these supplies also put greater pressure on the other inland lakes for supplying enough Manoomin for the

whole community for food and livelihoods, which in turn had a very negative impact on them and left the community with few or no sources of wild rice.

Wild rice, or “manoomin,” as it is called in the Anishinaabe language, is culturally and spiritually important to Hollow Water First Nation’s Anishinaabe people. High in protein, yet low in fat and calories, manoomin has a very high nutritional value and provides multiple health benefits to the community eating and harvesting it. Each year, most families from Hollow Water First Nation would participate in manoomin harvesting, which resulted in a community celebration of cultural significance. These events brought the community together and built social assets, which facilitate cooperative action as well as social bridging that facilitates the sharing of ideas and resources. However, since hydro impacts have wiped out the wild rice crop so severely the last two generations (people under forty) have not been able to experience wild rice community gathering or have it as a regular part of their diet, bringing to an end traditions that go back thousands of years. The older people miss the harvesting time when the community came together and celebrations occurred. They also miss the taste of wild rice, which can be stored for long periods, and was their staple eaten year round.

The buyers of manoomin would come from the United States and offer lucrative price deals for this high value crop. This livelihood provided a good income for the community members. Manoomin was reported to be the largest revenue source for many Hollow Water First Nation people before Hydro. Before Hollow Water First Nation had a large processing plant in the community that employed many people to process and package the rice. However, with Hydro development the manoomin no longer has productive yields and so community members miss out on the financial and health benefits of this high value crop.

Since water depth is critical for manoomin plant survival hydro fluctuation of water levels can be clearly pointed at for its demise. Manoomin grows in water depths ranging from 0.5 to 3 feet, with 1 to 2 feet being optimal. Very dark or turbid water from sediment in the water limits sunlight penetration and may hinder early plant development. Wild rice can tolerate water level fluctuations as long as they are not too great, however, the large scale and continuous fluctuations caused by Manitoba Hydro cannot be survived. During the “floating leaf” stage, the plant is able to exchange gases and literally “breathe” underwater but it is extremely susceptible to water level fluctuations. Plants can be uprooted, washed away due to increased water levels, or drowned. Then in mid-July, manoomin undergoes a physiological change from breathing under water to growing upright and exchanging gases with the air. It is important during that time that manoomin is not underwater – or the rice will fall to the bottom and the plant will drown. It is also important that the water levels are not too low as then the plant will topple over without support from the water and the rice seed will be lost and drowned.

3) High and fluctuating water levels eroding land and destroying biota (trees, muskrat habitat and muskrats, etc.);

The hydro water regulation causes erosion to Hollow Water First Nation reserve land, Black Island, other islands and “everywhere”. The cliffs and lakeside properties are eroding and large areas of beach are underwater. The trees are water-logged in many areas so that the roots and wood rot and become vulnerable to wind storms. Robyn Hall reports in the video that eighty 100 year old trees were toppled near her parent’s home recently due to the ground being so water saturated that there was no support for tree roots and some wood became rotten from the inside from being water-logged.

Hydro water regulation is also impacting wildlife. Geoff Bushie reports in the film that the abundant muskrat populations of the past have been reduced to almost nothing. Other Hollow Water First Nation trappers tell the same story. Also, so much flooding reduces the locations where medicinal plants, such as snakeroot, grow so that they can no longer be obtained.

Cumulative impacts of flooding cause declines in the productivity and biodiversity of downstream rivers systems (Rosenberg 1997; Neu 1982). Rare or endangered species that are especially vulnerable to these changes include lake sturgeon and woodland caribou in Manitoba (Scurrah and Schindler 2012, Peterson et al. 2007). Many of the affected wildlife including muskrat, ducks, and moose are also “cultural keystone” species that have been hunted, trapped, and consumed since time immemorial (McLachlan and Miller 2012).

High mercury levels also typically erode community confidence in traditional foods (Loney 1995), accelerating a nutrition transition from still-healthy, wild-caught foods to highly processed, store-bought foods rich in fats, sugars and salts (Waldram 1985). This transition in turn contributes to increases in diabetes, obesity, and heart disease (Thompson et al, 2012).

4) The Perils faced by the fishing industry

Hollow Water First Nation is a fishing community but with Hydro it is getting harder to fish and less people are able to make a living from it. In the past every family had a fisher person but not now due to the hardship fishers face from water fluctuations. Boat travel safety is a large and threatening issue with sunken logs, reefs and underwater islands as the water routes, which were commonly known by fishers, have been drastically changed.

The fishing has been impacted by fluctuating water levels in many ways. Islands that used to be there and fishers used are now underwater with the high water levels. The flooding of the shorelines and erosion of the land gets soil, brush and trees into the water. This “muck” ends up in the fishnets and destroys them or means that they are too heavy to pull up and they fall to the bottom of the sea.

The fish dock at the fish processing plant has been flooded so many times that most of it is destroyed or lost. The fishers face the same problem at home with the and their docks are often ruined. Monica Seymour describes how her dock that is almost 3 feet above the water, is not high enough to prevent the boats from going on top of the dock when they are tied up due to extremely high water levels. As well, there are many times each year that the water level rises to even eight feet or more which swamp or turn over and damage boats and other vehicles near the lakeshore. The fluctuations are sudden and so boats moved ten or twenty feet from shore are no longer safe with this drastic change in water levels. This has destroyed boats and other vehicles that are in lower areas.

As well the populations of fish are much lower due to hydro impacts. The sturgeon is no longer seen in these waters, when once it was plentiful. Other fish are less abundant. Fish eggs, are destroyed by being exposed to air resulting from water level changes during spawning season. This lack of successful spawning, due to fluctuating water levels, reduces the fish populations and the livelihoods of fishers.

Conclusion

The negative impacts of fluctuating water levels to Hollow Water First Nation are many. The loss of manoomin, caused by flooding, touched so many aspects of the lives of people at Hollow Water First Nation. People can no longer engage in the spiritually, socially and culturally significant occasion of manoomin harvests. This decimation of manoomin by Manitoba Hydro also meant the loss of a multi-million dollar revenue from this industry consider the decades of this industry’s demise. Manoomin was a staple food of high nutrient value, which is no longer available and has been replaced by more unhealthy choices resulting in negative health impacts.

The risks to people’s health from Hydro impacts are many. This includes life-threatening risks to boat safety from the increased debris of logs as the land and forests erode with flooding. Also hydro flooding has resulted in the housing stock being subject to mould and electrical/shock hazards. The risks are so high from electrical shock that Monica has to vacate her home many times each year for the last five years to protect the lives of their children from mould and electrical/shock hazards. Clearly this new flooding since 2010 is due to Manitoba Hydro as all the

Hollow Water First Nation people interviewed said that in living memory they never experienced flooding until recently.

What compensation can be given and what reparation can be given for these aspects? There is clearly a financial cost that should be compensated for ruined homes and loss of livelihoods. However, compensation is not enough.

The destruction of livelihoods, health risks and undermining of natural habitats is required to end through more careful water regulation. For example, a water level that allows for the high productivity of manoomin as long as the sun shines is needed during its critical growing season and protection of eggs during fish spawning periods. For reparation this will require the replanting of manoomin in traditional harvesting sites and careful regulation to optimum water levels for manoomin rather than hydro income over the summer and early fall months. The Anishinaabe people at Hollow Water First Nation have harvested manoomin for thousands of year but this requires restoration of these habitats. This important cultural, spiritual, nutritional, social, health and economic activity should not be sunk to raise the water levels for Manitoba Hydro's profit.

Written by: Dr. Shirley Thompson with Garf Bushie, April 30, 2015