Coalition to Save Lake Winnipeg Tours Selkirk Wastewater Treatment Plant August 2022

The Coalition to Save Lake Winnipeg has been and continues to be concerned about how communities within the Lake Winnipeg drainage basin use water and how wastewater is treated and discharged so that it has a minimal effect on the environment. The City of Winnipeg, with many areas still having combined sewer/ storm sewer lines, continues to discharge huge amounts of wastewater into the Red and Assiniboine Rivers during heavy rainstorms. The City also continues to discharge wastewater with high levels of phosphorus, not meeting provincial regulations, although with the recent tri-level government announcement, the North End Water and Pollution Control Centre will expand and soon begin treating water to lower the phosphorus level to within provincial regulations.

The CSLW was interested in Selkirk's new wastewater treatment plant. We understood that the new plant, opened in 2021 was state of the art and a model for other communities. The CSLW was invited to visit the plant in August 2022. We were very impressed with the work Selkirk has done to consider the environmental impact of both drinking and wastewater, their use of sustainable technology and their planning for future needs. Raven Sharma, manager of facilities at both water and wastewater plants explained how the City of Selkirk is concerned about climate change and how the city is preparing for the future while also considering the environmental impact of its actions. Selkirk's Water Treatment plant continues to use lime as a primary filter for treating drinking water. Lime produces considerable waste so the plant will be moving away from the use of lime to using a filtration system that is much more environmentally friendly. 6 wells through the Selkirk/ St Andrews area are closely monitored for water volume and quality and precautions are taken so that potable water would continue to be available should a disaster or major power failure occur. Even during the height of last year's drought the aquifer still contained huge amounts of water, far greater than the population could use. Treating water from an aquifer is different from treating water from a lake so Winnipeg's water treatment would be somewhat different, but should there ever be a problem with the Shoal Lake supply, one wonders about the feasibility of supplementing that water with water from aquifers under the city of Winnipeg.

The Selkirk Wastewater plant uses a "Membrane-Bioreactor Treatment process, which provides the best environmental protection for the Red River and Lake Winnipeg, will produce an exceptionally high quality of effluent, so if regulations change in years to come, the city will still likely meet the standards without costly retrofits or new construction." (the City of Selkirk Wastewater Treatment Plant website). The plant has the capacity to treat a more than double population increase. Wastewater after its treatment is considered reclaimed, which means that it is potable but legislation does not allow it to be used for drinking as trace pharmaceuticals remain in the water. At the present time water is not required

to be tested for pharmaceuticals but Selkirk is planning to do so. It is tested for pollutants, pathogens and contaminants and the end result is a very clean product with no phosphorous at all detected in the water, by far exceeding provincial standards. Many solar panels are soon to be installed to reduce energy consumption and the heat produced from the waste will be recycled to heat the plant creating a negligible carbon footprint.

Selkirk's award winning Climate Change Adaptation Strategy guides the decisions around large infrastructure projects.

The CSLW came away from the visit very impressed with Selkirk's concern for the environment and concrete actions that they have taken to create a sustainable future for their citizens. It gave us hope that other communities could follow suit and that a vision for the future could balance economic growth with environmental sustainability.