

Safe Drinking Water Foundation

George Gordon First Nation, a community of less than 1,000, had a long standing problem with their manganese greensand water treatment plant producing very low quality drinking water. Over 15 years Indian and Northern Affairs Canada (INAC) had three different engineering companies attempt to improve the performance of this plant but, as is the case in too many rural and First Nation communities, the quality of the ground water was so poor that it was simply impossible for these methods to work.

In 2002 a new treatment process capable of purifying the most challenging water sources was being developed at nearby Yellow Quill First Nation by Dr. Hans Peterson and the Safe Drinking Water Foundation (SDWF). The result was the Integrated Biological and Reverse Osmosis Membrane (IBROM) treatment system which utilizes the unique method of having controlled bacteria populations remove contaminants and prevent unwanted bacteria growth in drinking water. This system uses wholly natural processes to produce water that surpasses the most stringent of all international water quality standards while leaving the smallest possible environmental footprint.



When implemented at George Gordon First Nation in 2007 the IBROM saved the community over \$100,000 annually in chemical costs alone and they went from having some of the poorest to some of the highest possible quality of drinking water while leaving the smallest possible environmental footprint.