



CGS Luncheon Presentation

Development of a Water Supply in the Carbonate Aquifer for the City of Selkirk

Presented by:

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Presentation Abstract:

The City of Selkirk, located approximately 30 km north of the City of Winnipeg, has had a complex groundwater supply from the carbonate aquifer for over 100 years. Beginning in the late 1970's, the existing water supply began to show signs of excessive drawdown from over use, and the Red River became the new water supply. Due to taste and odor issues with the surface water supply, the existing wells were brought back into service in the late 1980's. By the summer of 2014, less than 1 to 2 meters of available drawdown existed within the center of the drawdown cone near the main producing supply well. It was concluded that the city supply wells were slowly dewatering the bedrock. Long-term hydrograph records showed a steady decline, while records outside of the drawdown cone showed moderate increases.

In the early 1970's a new well location had been identified some 8 km to the northwest of town, within an area known as the Western High Transmissivity Area. Two production wells were installed and a seven-day pumping test was done. During the testing, extensive monitoring of a major groundwater discharge area located to the west was undertaken.

The study involved an extensive review of the regional recharge and discharge/groundwater budget areas throughout the central part of Manitoba and a review of changes to rates of recharge.

About the Presenter:

Jeff was one of the last graduates of the geological engineering program at the University of Manitoba. He focused on hydrogeology early in his degree program, and completed his thesis with Dr. Allan Woodbury on hydro stratigraphy modelling of Manitoba. He won several awards for this research work.

After graduation, Jeff went to work for Wardrop Engineering, where he was sent overseas to the Philippines for a year to work on a 13 town water supply project for CIDA on the island of Palawan. After returning home, he worked on some groundwater numerical modeling projects for the City of Winnipeg and the Red River Floodway. In addition, he also did several town water supply projects. Afterwards, Jeff was seconded to the Northern Region Water Supply Project in the north of Ghana for 2 years.

In 2005, Jeff joined Friesen Drillers in Steinbach to undertake municipal water supply projects in Manitoba. These projects have ranged across Manitoba through the Paleozoic aquifers, and into the western parts of the province. In addition to this work, a great deal of well design, rehabilitation, and investigative work has been done. A great deal of research work has been done over many years on buried valley aquifers in Brandon. Many of these projects have a regional hydrogeology mapping focus.

Jeff has served on the council of the IAH-CNC for 15 years, as currently is serving as vice president and Manitoba representative on council. He has presented at many IAH conferences both in Canada and internationally, and has 22 papers/conference proceedings.

Date: Tuesday, January 30, 2018
Time: Lunch at 12:00 PM, Presentation at 12:20 PM
Location: Holiday Inn South, 1330 Pembina Highway
RSVP: 12:00 PM, Thursday, January 25, 2018

This presentation is co-organized with the
International Association of Hydrogeologists.



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