

Project Name: Town of Maple Creek Water Treatment Plant

Location: Maple Creek, Saskatchewan

Owner: Town of Maple Creek, Saskatchewan

Prime Consultant: Bullee Consulting, Saskatoon



Plant Facility: The water treatment plant at Maple Creek consists of major three subsystems: Raw water system, Nano Filtration system and Distribution system. Raw water system has total 10 well pumps. Nano Filtration system comprises of 4 filters, 2 transfer pumps, membrane cleaning pump, membrane flushing system, caustic soda chemical system and chlorine pumps. Distribution system contains 2 transfer pumps, 2 distribution pumps and 2 reservoirs. The WTP plant is designed and automated to operate, control and supply treated water to town of Maple Creek.

Delco Automation's Scope of Work: Designed, developed, commissioned and installed PLC/HMI based automatic control system for raw water control, raw water treatment and distribution of treated water.

Technology: The SLC 5/05 PLC is programmed to operate and control the plant. This PLC is connected to HMI/SCADA through an Ethernet connection. The PLC communicates with seven remote well sites through BenteK radio modem using DF1 protocol and half duplex. An auto dialer is used to connect several phones to inform about the plant conditions and alarms. A modem is setup to allow Delco Automation to go online to HMI/SCADA computer and PLC from Saskatoon office.

