

Sturgeon Industrial Park Water Servicing Preliminary Engineering Sturgeon County

The Sturgeon Industrial Park (SIP) is a mature industrial subdivision established in the late 1970's. The Park covers an area of about 1,660 ha and is located near the southern boundary of Sturgeon County's portion of Alberta's Industrial Heartland. In 2012, Sturgeon County retained Sameng to undertake preliminary engineering for water servicing of the SIP area, especially in the vicinity of Highway 825 and Township Road 552.



SIP Water Reservoir and Pump House

Location

Sturgeon County, AB

Key Team Members

David Yue, P. Eng

Max Bélanger, M.Sc.,

P.Eng

Brandon Rivet, C.E.T.

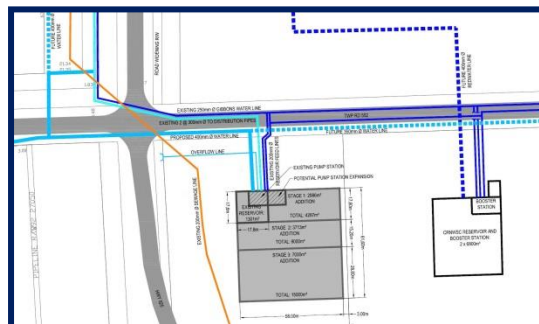
Duration

Jan. 2012 – Apr. 2013

The main objectives of this project were as follows:

- Assess the existing conditions of the SIP reservoir and pump station and water distribution system and assess existing water demands based on historical data.
- Recommend short- and long-term water system upgrades to provide potable water servicing to existing and future developments in the SIP.
- Develop a cost-effective staging plan, including scope of work and cost estimates, for the reservoir, pump house and truck fill improvements, as well as waterline works.
- Identify the alignment and constructability of the waterline crossing with respect to the Highway 825 and Township Road 552 intersection improvements.

The existing water distribution system of the SIP is near capacity and cannot provide the recommended fire flow. The recommended improvements to service the ultimate development were to create a water network that will provide adequate peak flows and pressures throughout the SIP under peak water demands, and provide for a fire flow of 225 L/s throughout the system. Short-term upgrades include the expansion of the reservoir; upgrade of the pump station including three service pumps and two



Recommended Staging Plan of Reservoir

fire flow pumps, replacement of the distribution header and a new truck fill line; and the installation of water distribution lines. Short-term upgrades are planned to be completed in the next few years to allow for growth in the SIP, service additional industrial developments with water, and meet recommended fire flow requirements.