

Industrial Heartland Utility Master Plan Sturgeon County

The Alberta Industrial Heartland is becoming a world class industrial center focusing on petroleum, petrochemical and chemical processing. Straddling four municipalities, the Heartland Region encompasses almost 200 km² and about 30% of the Heartland Region lies within Sturgeon County. In order to encourage sustainable development, the County recognized the need for long term utility servicing strategies. Sameng Inc. was accordingly engaged in 2006 to develop servicing strategies for four key components:

Location

Sturgeon County

Client Contact

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Potable Water

A considerable quantity of potable water was required during the construction and operation of the proposed projects. Sameng evaluated the economics of constructing and operating a new reservoir versus expanding the Northeast Corridor Reservoir. Network expansion for the area was proposed to be constructed in two phases to correspond with the pace of development.

Wastewater

The project proponents need to discharge domestic and/or industrial wastewater. Sameng proposed that the existing network be extended to the northern project boundary. Under this option, each project would maintain a private pump station to discharge flow to the Alberta Capital Region Wastewater Treatment Plant.

Process Water

Since process water is required by all project proponents, Sameng evaluated the feasibility of joint infrastructure to address system reliability and demand management. The proposal included two reservoir cells and multiple intakes. A separate assessment was also conducted to evaluate potential business models; this addressed the benefits of ownership by industry, the County or a third party.

Stormwater

In order to protect the existing watersheds, an integrated stormwater plan was developed to ensure that existing outlets are preserved, assess the need for shared stormwater facilities and determine a target control rate for post-development discharge.

These servicing strategies were developed as a result of interaction with project proponents, municipal partners, regional commissions and existing utility companies.