

System Name: Meaford PUC WTP
Municipality: Municipality of Meaford
Drinking Water System Category: Large Municipal Residential

The Municipality of Meaford is located in Grey County completely in the Grey Sauble Source Protection Area. Key features include kilometres of Georgian Bay shoreline, the Niagara Escarpment, the Bighead River and tributaries, the Bruce and Georgian Trails, substantial forests, rolling valleys, and large wetland areas. In 2011, the population was 11,100, which was an increase of 1.4% from 2006. Seasonal residents add to the population during peak periods. The main town is Meaford (population 4,524). Smaller villages include Leith, Annan, Bognor, and Woodford. The one municipal drinking water system is an intake located in the town of Meaford. No new drinking water systems are planned.

The Meaford PUC WTP is a Great Lakes (Type A) intake that is located on Nottawasaga Bay. It services approximately 4,800 people and is classified as a large municipal residential system, under Ontario Regulation 170/03, with a rated capacity of the treatment plant of 26,848m³/day.

The treatment process includes two filter beds with multimedia and backwash troughs, a flash mixer, gas chlorination disinfection, ultraviolet disinfection, and backwash wastewater treatment. The filter backwash wastewater system consists of a surge tank, a treatment clarifier and an injection of sodium metabisulphate for dechlorination. Treated backwash wastewater is discharged into the storm sewer system. Chemicals used in the treatment process include polyaluminum chloride, sodium metabisulphate and chlorine gas (Stantec 2008).

The raw water intake is located at a northing of 531614.37 and an easting of 4940904.72. It is a concrete pipe approximately 265m in length and 750mm in diameter. The intake crib, located at the end of the intake pipe, is protected by gabion baskets in approximately 4.1m of water, with a lake depth of 5.7m (Stantec 2009). A chlorine dosing system for zebra mussel control exists at the inlet of the raw water intake crib (Stantec 2008).

TABLE 4.6.S1.1 - Description of the Drinking Water System (excerpt from Assessment Report)

Intake Type	A (Great Lakes)
Depth of Top of Intake Crib *	4.1m
Average Usage	1748m ³ /day
Maximum Usage	2259m ³ /day

* Elevations measured from plan & profile drawings (Philips & Roberts, Mar 1959) and converted to International Great Lakes Datum 1985 (IGLD 85) by comparing recorded water levels with historical information from US Army Corps of Engineers (in Stantec 2009)



Meaford water treatment building



Meaford WTP