

System Name: Markdale Well Supply
Municipality: Municipality of Grey Highlands
Drinking Water System Category: Large Municipal Residential

The Municipality of Grey Highlands is located in Grey County and its key features include the Beaver Valley, local waterfalls, the Bruce Trail, the Niagara Escarpment, the Osprey Bluffs, and the Saugeen and Beaver Rivers. The Municipality is located within three source protection areas (SPA) and two source protection regions: portions are in the Grey Sauble SPA and the Saugeen Valley SPA, which are in the Saugeen, Grey Sauble, Northern Bruce Peninsula Source Protection Region; a portion also belongs to the Nottawasaga Valley SPA, which is in the South Georgian Bay Lake Simcoe Source Protection Region. In 2011, the population was 9520, which was an increase of 0.4% from 2006. The main towns are Markdale and Flesherton. Smaller settlement areas include Feversham, Rocklyn, Kimberley, and Eugenia. Agriculture is one of the largest industries in Grey Highlands. Farms range from small and family-owned to large and highly-automated.

The two municipal drinking water systems in Grey Highlands are the Markdale Well Supply (Saugeen Valley SPA) and the Kimberley-Amik-Talisman Well Supply (see Assessment Report of Grey Sauble SPA). The Feversham water system, which serviced the Beaver Heights Subdivision, has been decommissioned. No new drinking water systems are planned.

The Markdale Well Supply consists of two groundwater well sites, one elevated standpipe and all the associated watermains, services and hydrants. This system serves approximately 1250 residents (670 homes) and the Chapman's Ice Cream Company in Markdale. Well No. 1 was drilled in September 1973 (MOE) and is located inside the Isla Street pumphouse. It is 200mm in diameter and drilled to a depth of 73.2 metres. Raw water is pumped via a 150mm diameter vertical turbine submersible deep well pump, rated at 2,618 cubic meters per day. Well No. 3 is 200mm in diameter and drilled to a depth of 97.5 metres. It is located approximately 25 metres north of the Eliza Street pumphouse and is surrounded by a secured fence. The well pump is rated at 1,932 litres per minute at a TDH* of 101 metres. There is a 150mm discharge line connected to the well pump header in the pumping station. Well No. 4 is 250mm in diameter and drilled to a depth of 119 metres. Well 4 is located in the same fenced area with Well 3. Well 4 is equipped with a submersible pump rated at 750 litres per minute. There is a 100mm discharge line connected to the well pump header in the pumping station. Well Nos. 3 and 4 were constructed in 2002 and are potentially affected by surface water entering the wells, so additional filtration devices have been installed in the pump house.

The town's standpipe was constructed in 1986. It replaced the original concrete water tower built in 1975. The steel standpipe has a capacity of approximately 1900 cubic metres.

*Total Dynamic Head (TDH) is the work done by the pump per unit weight, per unit volume of fluid. This figure is used on Permit to Take Water documents.



Markdale Standpipe
constructed 1986



Inside Markdale
Well No. 3/4 pump
house



Markdale Well
No.3/4 Pump house