

System Name: Durham Well Supply
Municipality: Municipality of West Grey
Drinking Water System Category: Large Municipal Residential

The Municipality of West Grey is located in Grey County in the Saugeen Valley Source Protection Area. Three branches of the Saugeen River pass through the municipality en route to Lake Huron. In 2011, the population was 12,286, which was an increase of 2.7% from 2006. The main towns are Durham (population 2,647) and Neustadt (population 562). Smaller villages include Ayton, Elmwood, Crawford, and Allan Park.

The Municipality of West Grey has five groundwater municipal residential drinking water supply wells: two servicing Durham (Durham Well 1B and Durham Well 2) and three servicing Neustadt (Neustadt Well 1 and Neustadt Wells 2/3).

The Durham Well Supply presently uses two wells, Durham Well 1B and Durham Well 2. Durham's water supply system was originally constructed in 1939 with an artesian well. Water from the artesian well was piped to an underground reservoir on the corner of Albert and South Streets and from there it was pumped to a standpipe located at the north end of Durham. In 1949, Durham Well 1 was drilled at the site of the underground reservoir to improve a deteriorating water supply. In 1966, Durham Well 2 was drilled in the eastern portion of Durham, 100m north of Grey Road 4 and 200m south of McGowan's Falls. This supply system remained in place until 1987 when Durham Wells 1A and 1B were drilled (Cobean, 2001). Well 1A was immediately abandoned after drilling because part of the borehole collapsed, but was reserved for use as an observation well (Cobean, 2001; Henderson and Paddon, 2002). Durham Well 1B was drilled in 1987 in the southern part of Durham, 60m east of Highway 6, and was put into production in 1989. This well is located 9.8m northwest of Well 1A.

Well 1B has a depth of 77.7m with cement grouting along the entire well casing, which extends to 20.6m. Well records indicate that Well 2 was drilled in 1966 to a depth of 74.7m with a 12.8m casing. The depth of the grouting is not known or indicated in well records; however, cement grout is evident at this well (Henderson and Paddon, 2002). Well 2 is considered an excellent production well. In the year 2000, water levels in the casing were nearly overflowing between pump cycles, suggesting a strong artesian condition (Cobean, 2001). Currently Durham Wells 1B and 2 provide all of Durham's drinking water. Both well pump houses were upgraded in 2005 and 2006 to include filtration and ultra-violet (UV) treatment.



Winter photos of water courses in Durham ©SVCA



Original Water Works building



Well No. 1B



Well No. 2



Durham standpipe