

System Name: Community Centre/Fire Hall/Municipal Concession Stand

Municipality: Municipality of Northern Bruce Peninsula

Drinking Water System Category: Small Municipal Non-residential

The Municipality of Northern Bruce Peninsula is in the Northern Bruce Peninsula Source Protection Authority and makes up the northern part of Bruce County. The waters of Lake Huron border the west shore and Georgian Bay borders the east shore. The Municipality contains the Fathom Five National Marine Park, Bruce Peninsula National Park, The Bruce Trail, Cabot Head and Lion's Head Nature Reserves, two First Nation Hunting Reserves, and a large Bruce County Forest Tract.

The Municipality was amalgamated in January 1999 and is composed of the former Townships of St. Edmunds, Lindsay, Eastnor, and the Village of Lion's Head. It is currently home to the communities of Tobermory, Dyer's Bay, Miller Lake, Stokes Bay, Lion's Head, Ferndale, Pike Bay, and Barrow Bay. The total population was 3,744 in 2011, which is a decrease of 2.8% from 2006 (Statistics Canada). With a land area of 781.51km², the population density is 4.9 people per square kilometre. Seasonal residents add to the population during peak periods due to 4,870 private dwellings, which reflects the importance of tourism for this area.

The Municipality operates two municipal non-residential water systems, one servicing the Marina Harbour for the Northlands Transport Ferry Service in Tobermory (surface water based) and one servicing the fire hall, community centre and municipal concession stand in Tobermory (groundwater based). This single well was installed in the Guelph Formation bedrock aquifer to a depth of 67.4 metres in 1991. A well casing was installed to a depth of 16.2m. Originally, the Tobermory Community Centre maintained the private groundwater pumping well located on-site; however, the Municipality of Northern Bruce Peninsula has since assumed responsibility for the well. The Community Centre Well is designated a Type 1 well under the *Clean Water Act, 2006*. It falls under the category of "Small Municipal Non-residential" under Ontario Regulation 170/03 (CRA 2008 – Round 2). The rated capacity of the well is limited to 0.79L/s; however, there have been no reports of dissatisfaction with the current supply volume.

In general, the bedrock aquifer can be characterized as primarily fractured, which contributes to increased vulnerability. The bedrock material in the study area is primarily dolostone in different sub-geological units including the Guelph, Amabel and Fossil Hill formations. These formations are known to be highly conductive of water. The surface of the bedrock is solution-weathered, irregular and commonly exposed. There are weathered, karstic bedrock features on the surface (WHI, 2005) but not expected to persist in depth. According to the engineer's report, water quality appears to be affected by storm events (Henderson and Paddon, 2004), indicating that the groundwater is highly vulnerable to surface contamination.

The Community Centre Well is considered Groundwater Under the Direct Influence (GUDI) of Surface Water. Total coliforms have been detected in the raw water samples available. Tested chemical/physical parameters of the raw water indicate that special precautions are required in using the well as a raw water source for drinking water. The engineering report recommends that the well should be classified as GUDI (Henderson, Paddon & Associates Limited 2004).



Well at Tobermory



Well Tag



*Tobermory
Community Centre*

Historical Fact:

Tobermory was once an isolated place, reachable only by water or two rough and twisting roads that came up either side of the rugged Bruce Peninsula. In April 1912, the wireless station that replaced the old telegraph line connecting Tobermory to the outside world picked up the far distant distress calls of a sinking ship. That ship was the Titanic.