

## Local Water Monitoring Program

**Objective:** Otonabee Conservation uses an integrated, science-based approach to understand the ecological processes and state of natural resources in the watershed. Monitoring programs increase our understanding of watershed health and make it possible to track changes and target efforts to enhance the watershed environment.

We collect data that enables us to understand where conditions are deteriorating or changing and helps us to target restoration efforts or encourage behavioral changes to enhance water quality.

This information is used by Conservation Authorities and other practitioners, all levels of government, industry, and environmental agencies to help conserve, restore and protect the natural resources that support us.

**Description:** Otonabee Conservation is mandated to deliver provincial monitoring programs within our jurisdiction. We also undertake a local water monitoring program to supplement the information collected through the Provincial Programs. We work with a variety of partners to deliver local water monitoring programs, including government, foundations, businesses, residents, and educational institutions.

Both programs include monthly collection of surface water samples during the ice-free season. The Provincial Surface Water Quality Monitoring Program (PWQMN) includes sample collection at 16 sites, and the Provincial Groundwater Monitoring Program includes measuring water quality and quantity at 11 sites. The local water monitoring program includes sample collection at four additional sites to ensure that data collected is representative of the entire Otonabee Region watershed. Water samples collected through both programs are analyzed for a variety of physical and chemical parameters in the field and at provincial and local laboratories

As part of the local water monitoring program, biological indicators are also used to assess long-term water quality. Samples of the benthic macroinvertebrate communities are collected annually in May at 8-12 sites across the watershed. Benthic macroinvertebrate are the bugs that live in the bottom of streams, lakes, rivers, and wetlands and are excellent biological indicators of water quality as each species has a different tolerance to water quality conditions.

The data collected through the local water monitoring program is incorporated into a variety of programs and activities that include the publication of a Watershed Report Card every five years. Watershed Report Cards track and report on surface water quality and forest conditions and provide information related to groundwater quality, wetlands, and climate change.



**Table 1: Provincial Water Monitoring Program in Township of Douro-Dummer**

| <b>Provincial Groundwater Monitoring Network Locations</b>   |
|--------------------------------------------------------------|
| Caves Road & County Road #4 (Warsaw Caves Conservation Area) |
| Caves Road & County Road #4 (Warsaw Caves Conservation Area) |

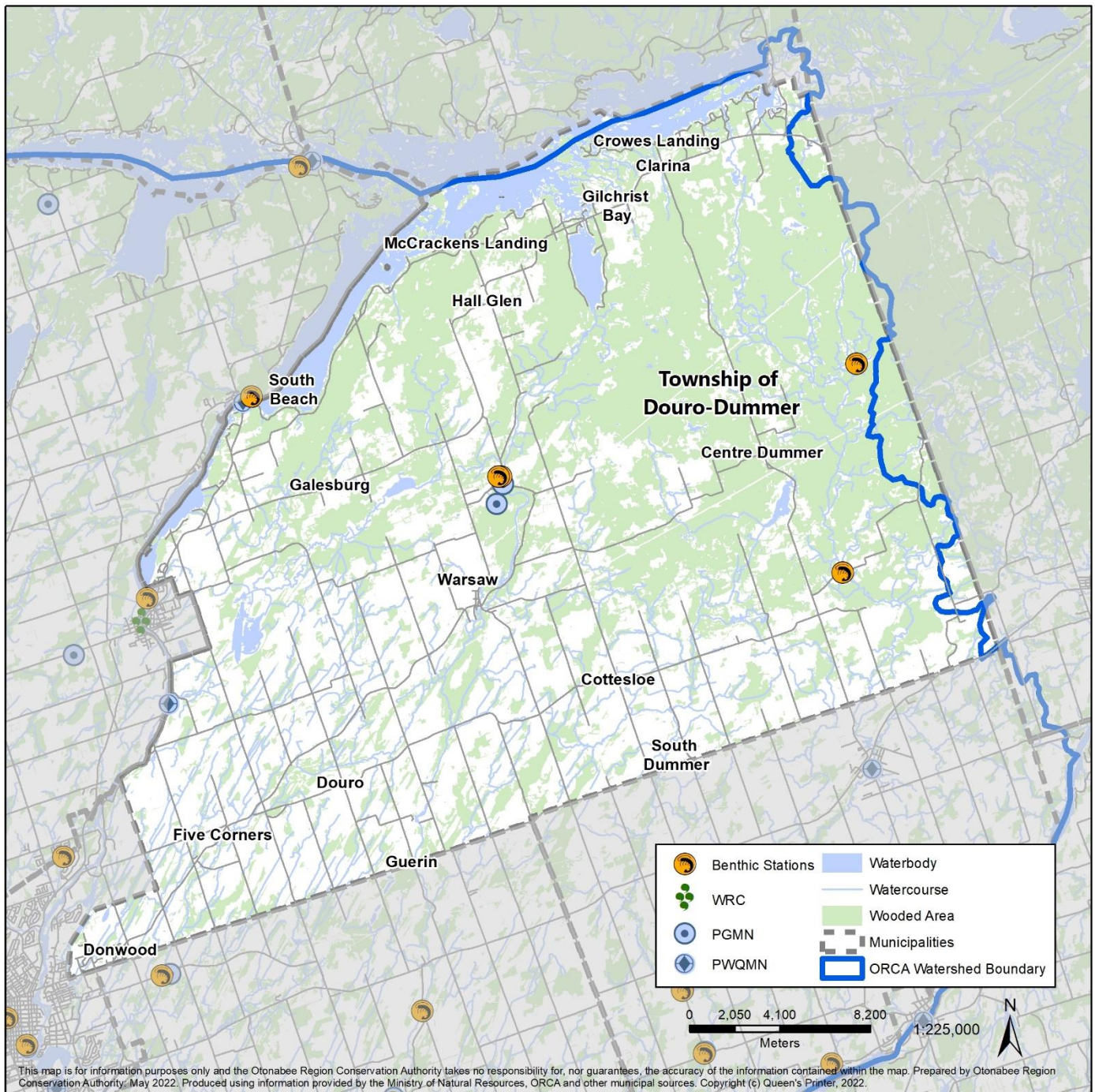
| <b>Provincial Water Quality Monitoring Network Locations</b> |
|--------------------------------------------------------------|
| Clear Lake Outlet @ Youngs Point                             |
| Otonabee River @ Lock 25                                     |

**Table 2: Local Water Monitoring Program in Township of Douro-Dummer**

| <b>Local Water Monitoring Network Locations</b> |
|-------------------------------------------------|
| No locations in municipality                    |

| <b>Location Benthic Monitoring Locations</b> |
|----------------------------------------------|
| Indian River @ Caves Road                    |
| E. Ouse River @ Peterborough County Forest   |



**Figure 1. Map of Monitoring Locations in Township of Douro-Dummer**