



Community Monitoring Opportunities

Community-based monitoring is a process whereby concerned citizens, government agencies, industry, academia, community groups and local institutions collaborate to monitor, track, and respond to issues of common community concern (to find out more about successfully implementing a community monitoring program on your lake, check out the [Canadian Community Monitoring Network](#)). Opportunities for community monitoring will likely be identified as you progress through the lake planning process, specifically in your 'State of the Lake' report, and finalized Lake Plan.

The bulk of the work needed to develop a Lake Plan will likely be initiated and carried out by your lake group/association and other volunteers. Community monitoring programs can help lake groups overcome some of the challenges in developing their plan by:

- Eliminating the prohibitive cost of collecting field data;
- Getting the community involved;
- Educating people about lake processes and issues;
- Providing quality data to decision makers; and
- Building community stewardship effort

Program	Details	Organization
<p><u>Watershed Watch</u></p>	<p>Watershed Watch is an intensive monitoring program on the 35 key lakes in the Rideau Valley. Volunteers can help to collect a reliable and accurate set of baseline data to act as an early warning system to identify trends or problems in water quality. The program includes community involvement and monitoring through water chemistry sampling for:</p> <ul style="list-style-type: none"> • Total phosphorus • Total Kjeldahl nitrogen • Bacteria (<i>E. Coli</i>) • Water clarity • Dissolved oxygen/temperature • Invasive species (zebra mussels, spiny waterflea) • Calcium • Benthic invertebrates (the bugs on the bottom) 	<p><u>Rideau Valley Conservation Authority</u></p>
<p><u>Ontario's Lake Partner Program</u></p>	<p>The Lake Partner Program is a province-wide, volunteer-based, water-quality monitoring program. Volunteers collect total phosphorus samples and make monthly water clarity observations on their lakes. This information will allow the early detection of changes in the nutrient status and/or the water clarity of the lake due to the impacts of shoreline development, climate change and other stresses.</p>	<p><u>Ontario Ministry of the Environment</u></p>
<p><u>Invading Species Watch</u></p>	<p>Invading Species Watch is a free, volunteer-based, lake monitoring program for aquatic invading species and is the only province wide monitoring program of its kind. Over 150 lakes have been sampled since its conception. The program offers local residents, cottagers, and property owners the unique opportunity to monitor their lakes for the presence of aquatic invasive species such as zebra mussels and spiny water flea at minimal cost.</p>	<p><u>Ontario Federation of Anglers and Hunters</u></p>

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<p><u>Know Your Lake Bugs (Macro-invertebrate Inventory)</u></p>	<p>The Rideau Valley Conservation Authority offers Lake Monitoring Workshops to those lake groups interested in learning how to sample and identify benthic invertebrates (bugs) in their lake. The bugs are sampled from the bottom of the lake using a kick and sweep method. These aquatic insects are then used as indicators of water quality.</p> <p>Volunteers learn how to identify aquatic insects found in lakes and how to keep track of information so that it can be entered into the database. After the data (the presence of different species, the number present) has been analyzed, the site is given a score that identifies the potential degree of organic pollution.</p>	<p><u>Rideau Valley Conservation Authority</u></p>
<p><u>Streamflow and Water Levels</u></p>	<p>Collected water level data can be used in several ways:</p> <ul style="list-style-type: none"> • Monitor flood and drought events • Monitor water supply for lake operation and navigation • Documenting rare events and calibrating numerical models • Water quality analysis of contaminant loading • Support land use planning • Assess fish habitat 	<p><u>Rideau Valley Conservation Authority</u></p>
<p><u>Precipitation Monitoring</u></p>	<p>Collected precipitation data can be used in several ways:</p> <ul style="list-style-type: none"> • Water budget analysis – knowing how much water is hitting the ground in several locations throughout the study area allows for a more accurate analysis that will, in turn, allow for more appropriate management of water resources • Drought response – with more rainfall measurement sites, the real impacts can be mapped and evaluated 	<p><u>Rideau Valley Conservation Authority</u></p>

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<p><u>Canadian Lakes Loon Survey</u></p>	<p>Human activity has reduced the abundance and breeding range of the Common Loon in North America. To help reverse this trend, the Canadian Lakes Loon Survey was founded as a long-term project of Bird Studies Canada to monitor the numbers and breeding success of loons on lakes across Canada. Their goal is to preserve loons by increasing public understanding of them and the impact of human activity on their populations.</p>	<p><u>Bird Studies Canada</u></p>
<p><u>Canadian Breeding Bird Survey</u></p>	<p>The Canadian Wildlife Service and Bird Studies Canada are looking for enthusiastic and skilled birders in Ontario to participate in the Canadian Breeding Bird Survey.</p>	<p><u>Bird Studies Canada</u></p>
<p><u>Nocturnal Owl Survey</u></p>	<p>The primary goal of this survey is to monitor owl populations in Ontario to determine whether owls are being affected by logging practices. The four main target species are Great Grey Owl, Barred Owl, Boreal Owl and Northern Saw-whet Owl. Participants in the survey conduct standardized roadside surveys of owls in forested areas in central and northern Ontario.</p>	<p><u>Bird Studies Canada</u></p>
<p><u>Ontario Birds Species at Risk Program</u></p>	<p>The goal of Ontario Birds Species at Risk Program is to work towards the protection and recovery of vulnerable, threatened and endangered and other bird species at risk in Ontario. This program is designed to facilitate cooperation among volunteers, government and non-government conservation agencies to monitor the status of these species and their habitats, and to provide the necessary data to develop management plans for their protection. Birds at Risk include:</p> <ul style="list-style-type: none"> • Bald Eagles • Barn Owls • Short-eared Owls • Loggerhead Shrikes • Prothonotary Warblers 	<p><u>Bird Studies Canada</u></p>

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<p><u>Marsh Monitoring Program</u></p>	<p>Through the efforts of many dedicated and skilled volunteers who survey amphibians, marsh birds, or both, the Marsh Monitoring Program contributes to the conservation of wetlands and wetland dependent wildlife. The program was designed to provide information on marsh bird and selected amphibian populations, and to contribute to our understanding of their habitat needs. The program has been expanded to include marshland within the Rideau Valley Watershed.</p>	<p><u>Bird Studies Canada</u></p>
<p><u>NatureWatch</u></p>	<p>NatureWatch is a suite of community based monitoring programs that are administered through a partnership between the Ecological Monitoring and Assessment Network, the <u>Canadian Nature Federation</u> and the <u>University of Guelph</u>.</p> <p>These programs encourage schools, community groups, individuals, naturalists, backyard enthusiasts, Scouts and Guides to engage in the monitoring of soil, air, water and other aspects of environmental quality.</p> <ul style="list-style-type: none"> • <u>FrogWatch</u> • <u>IceWatch</u> • <u>PlantWatch</u> • <u>WormWatch</u> • <u>DandelionWatch</u> 	<p><u>Ecological Monitoring and Assessment Network</u></p>
<p><u>Ontario Turtle Tally</u></p>	<p>Report your turtle sightings by entering your observations into our on-line database. The purpose is to collect, record and store location and species information on Ontario turtles, including species at risk. Turtles are most often seen in June when they are traveling to reach their nesting sites.</p> <p>The information collected in this database will be submitted to the <u>Natural Heritage Information Centre</u> and will be used to learn more about turtle distributions in Ontario.</p>	<p><u>Toronto Zoo</u></p>
<p><u>The Great Backyard Bird Count</u></p>	<p>The data collected from this count is combined with <u>Christmas Bird Count</u> and Project FeederWatch data to give us an immense picture of our winter bird populations.</p>	<p><u>Cornell Lab of Ornithology</u> <u>Audubon</u></p>

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<u>Project Feeder Watch</u>	Project FeederWatch is a winter-long survey of birds that visit feeders at backyards, nature centers, community areas, and other locales in North America. This information helps scientists track broadscale movements of winter bird populations and long-term trends in bird distribution and abundance.	<u>Bird Studies Canada</u> <u>Cornell Lab of Ornithology</u>
<u>Clam shells in a Bag</u>	Native mussels throughout North America have long been declining due to harvesting, sedimentation, pollution and the introduction of zebra mussels. Dead shells can be collected and sent to Fred Schueler for identification and the data will be added to the Canadian Freshwater Mussel Working Group’s database. An account of the sample will also be sent to you along with identified examples.	<u>Bishop Mills Natural History Centre</u>
<u>Ontario Hummingbird Project</u>	The goals of the Ontario Hummingbird Project are to identify migration routes and peak migration dates, document spring arrival and fall departure dates, define the northern limits of the breeding range, locate concentration points, study the nesting cycle, document rare species visiting Ontario and collect information on nesting locations, popular estimates, reproduction rates and birds returning to the same locality each year	