

Ready, Set, Check Your Watershed:

Check Your Watershed Day 2007

Event Summary Report

Saturday, July 21, 2007

Duffins Creek Watershed:

Greenwood Conservation Area

2280 Greenwood Road, Ajax, Ontario

Oshawa Creek Watershed:

Central Lake Ontario Conservation Authority Office

100 Whiting Avenue, Oshawa, Ontario

Ganaraska River Watershed:

Ganaraska Forest Centre

10585 Cold Springs Camp Road, Campbellcroft, Ontario

Prepared by Joyce Chau, Citizens' Environment Watch
August 2007

Acknowledgements

Check Your Watershed Day 2007 was made possible through the support of the Oak Ridges Moraine Foundation, the George Cedric Metcalf Charitable Foundation, and the Ontario Trillium Foundation. Check Your Watershed Day project partners would like to acknowledge the local support from the Durham Land Stewardship Council, Town of Ajax, City of Oshawa, Municipality of Clarington, Municipality of Port Hope, Township of Hamilton, and Veridian.



Check Your Watershed Day 2007 Partners

This project was a collaborative effort between the following partners (listed alphabetically):

- Central Lake Ontario Conservation Authority
- Community Stream Steward Program
- Durham Land Stewardship Council
- Ganaraska Region Conservation Authority
- Monitoring the Moraine Project Partners (Citizens' Environment Watch, Save the Oak Ridges Moraine Coalition, Centre for Community Mapping)
- Ontario Ministry of Natural Resources
- Ontario Ministry of the Environment
- Toronto and Region Conservation Authority
- University of Toronto
- Water Survey of Canada



INTRODUCTION

Check Your Watershed 2006: Testing the Waters

Last year, Check Your Watershed Day was piloted on Saturday, July 22, 2006 in the Wilmot Creek watershed and parts of the adjacent Graham Creek in the Regional Municipality of Durham, Ontario¹. Covering an area of about 150 km², 22 hard-working volunteers visited 116 sites. For more information on Check Your Watershed 2006, please visit www.MonitoringTheMoraine.ca.

Check Your Watershed Day 2007: Bigger and Better

On Saturday, July 21, 2007, 184 people were out simultaneously checking the health of the Duffins Creek, Oshawa Creek, and the Ganaraska River watersheds. In total, 682 km² were covered and 529 sites were visited. All of this work was done within a span of four hours. A summary of the information is presented in Table 1.

The project was the product of 12 partners coming together from various groups including NGOs, Conservation Authorities, academia and provincial government. This unprecedented partnership is a testament to the potential of this project as a community-based event and to the valuable information that can be collected in a short amount of time. There was also tremendous community support for Check Your Watershed Day 2007.

Nearly two hundred people were out demonstrating their concern for their watersheds. Check Your Watershed Day 2007 was a fantastic example of people coming together to better understand their environment and contribute to its safekeeping. The progress made this year sets a high standard for future events.

A field crew ready for action in Oshawa Creek. Photo courtesy of Central Lake Ontario Conservation Authority.



¹ Check Your Watershed Day 2006 was a collaboration between the Monitoring the Moraine project partners (Citizens' Environment Watch, Save The Oak Ridges Moraine Coalition, and the Centre for Community Mapping), Community Stream Steward Program (OFAH), Ganaraska Region Conservation Authority, Durham Land Stewardship Council, and the Ontario Ministry of Natural Resources.

Table 1. A breakdown of area covered and the number of people and sites visited for each watershed.

	Duffins Creek	Oshawa Creek	Ganaraska River	Total
Area	283 km ²	120 km ²	279 km ²	682 km ²
Sites Visited	181	118	230	529
Turnout	63 ppl	49 ppl	70 ppl	184 ppl
Volunteers	26 ppl	19 ppl	50 ppl	95 ppl

Turnout

This year, a wide range of volunteers came out to the events, including the young and the young at heart. In Oshawa Creek, there was even a family field crew with two kids. From Wasaga Beach to Waterloo, volunteers came from both near and far to take part in Check Your Watershed Day 2007. Local councilors also came out to show their support and join in the stream monitoring. Regional Councillor (Wards 3 & 4) Colleen Jordan and Ward 3 Councillor Joanne Dies from the Town of Ajax came, saw and conquered the techniques to measure stream flow in the Duffins Creek. In Oshawa Creek, Regional and City Councillor (Ward 5) John Henry from the City of Oshawa and Ron Hooper, Ward 2 Councillor for the Municipality of Clarington both came out to support the event.



Crew 8 Group Photo (L-R): Durham Regional Councillor Colleen Jordan, Crew Leader Scott Jarvie and Ajax Councillor Joanne Dies. Photo courtesy of J. Natanishi.

“It was a great time outdoors, and a chance to learn more about the environment from people on my team” – participant comment



Clarington Councillor Ron Hooper welcomes the volunteers at the Check Your Watershed Day at Oshawa Creek. Photo courtesy of Central Lake Ontario Conservation Authority.

The total turnout includes both volunteers and agency staff who were out on that day. All in all there were approximately 100 volunteers out checking their watersheds. Each watershed was divided into sampling zones for a field crew of three people: one leader and two members (Figure 1). There was a crew designated to each zone, and an additional crew to do quality control. Ideally, the Duffins Creek and Ganaraska River would each have 57 volunteers (19 leaders and 38 members) and Oshawa Creek would have 45 volunteers (15 leaders and 30 members) to sample the entire watershed. In total, these numbers tally to 159 volunteers (53 Leaders and 106 Members).

Check Your Watershed Day project partners trained 31 volunteers as field leaders. Because this was below target, agency staff was used to supplement the gaps. As well, because there were some registrants who were unable to make it to the event (about 30 people in total), these missing spots were also topped up by agency staff.

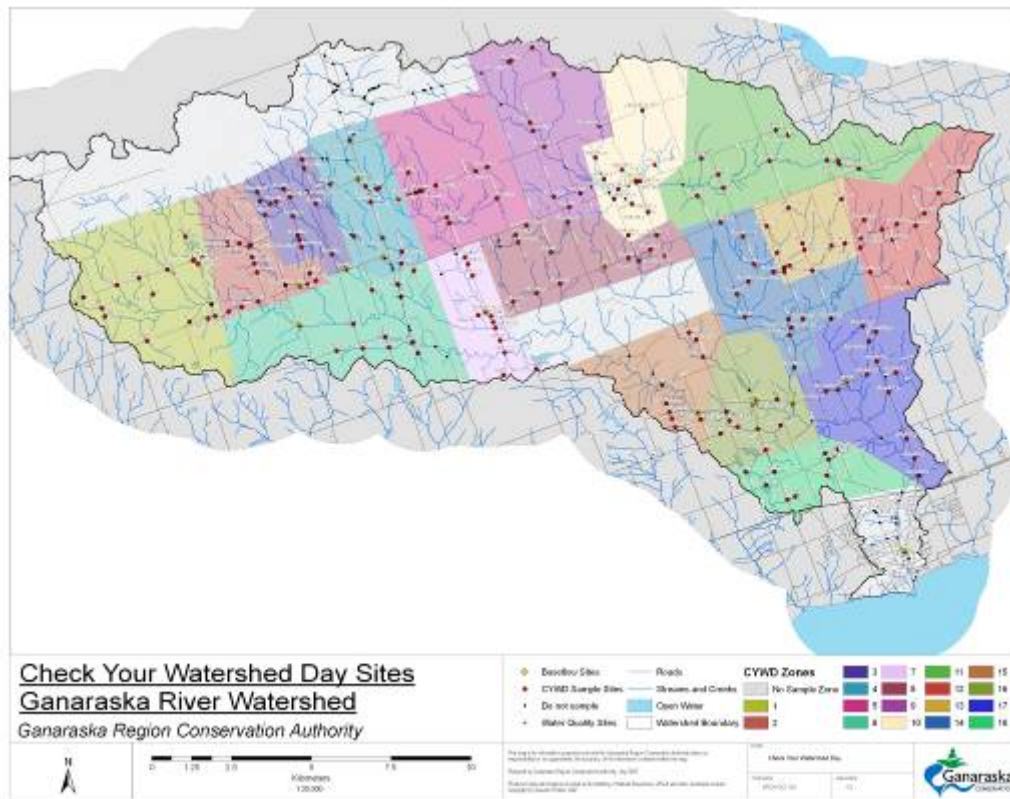


Figure 1. An example of the Gananaska watershed divided into sampling zones and the sites within the zones.

For future events, there will be an improved outreach strategy to attract more volunteers. Although it can be difficult to reach people in the summer, Check Your Watershed Day partners will invest more time to recruit community groups in addition to individuals to volunteer.

IMPROVEMENTS 2007

Based on the 2006 evaluations of the pilot project, many of their suggestions were implemented this year. In addition, more elements were added to the project to make for a more dynamic dataset of water quantity across watersheds. These improvements are listed below.

Field Crew Size

Last year, the majority of the field crews had two members. This year we aimed to have three people in a field crew. This would allow two people to take measurements and one person to record the data. When possible, field crews were comprised of three people. However, this was not always possible as there were a good number of people who registered but were unable to attend or just did not show up after registration. As a result, some crews managed with two members.

Field Crew Leaders

In 2006, agency staff accompanied the field crews to their first site to review the sampling protocol and how to fill in the datasheets. Because volunteers expressed that they would feel more comfortable with more field support, this year we had Field Crew Leaders. These were both volunteers and agency staff who were trained prior to the Check Your Watershed Day. Each stream team had a Field Crew Leader who was responsible for ensuring proper sampling, data collection and recording, and equipment use. They helped to improve the quality control of the data. In total, there were 52 Field Crew Leaders.



Field Crew Leaders in training. Photo courtesy of Citizens' Environment Watch.

“Check Your Watershed Day was a very good experience for those who want to pursue a career in something similar to working with the environment” – participant comment

Quality Control

In addition to the Field Crew Leaders, there was a station back at the basecamp where field crews would submit their data. Before the data was accepted, it was checked by an agency staff and reviewed to ensure all the notations were legible and understandable.

To ensure repeatability and to build the confidence in the collected data, additional teams were out sampling a selection of sites across the watersheds. There was one team randomly designated in each watershed to perform quality control.



**Crossing the T's and dotting the I's in the Duffins Creek Watershed.
Photo courtesy of J. Natanishi.**

Additional Measurements

Not only were people out checking the status of the flow in small streams at stream crossings, others were also out collecting additional data. These included velocity, water quality and quantity. Velocity measurements were taken on larger streams of the watershed, water quality samples were taken to be analyzed under the Provincial Water Quality Monitoring Network of the Ministry of the Environment, and information from Water Survey of Canada's hydrometric station were compiled for information comparison. The measurements were collected by agency staff because of safety and accessibility, equipment and training. Some of these measurements were taken in larger streams, requiring the use of complex and expensive equipment and the knowledge of more protocols.

IMPROVEMENTS 2008

Based on the evaluations from the three Check Your Watershed Day events, everyone generally had a great time. They enjoyed being outdoors, learning about the environment and how to sample, and meeting new people.

*"Saturday was one of the most interesting days I have had in a long time"
-participant comment*



**Stream sampling in the Ganaraska River.
Photo courtesy of Ganaraska River Conservation Authority.**

However, there were many suggestions that will be taken in account for the planning of Check Your Watershed 2008. For example, it was difficult for some groups to visit all of their sites and look for new sites within their sampling zones. As a result, the sampling zones will be reduced, and potentially focused solely on sampling the known sites on the map.

“I only managed to get our team to do about half our sides in the allotted time and felt bad that we didn’t get all the data. The data we did record however was good” – team leader comment

There will be a more intensive volunteer recruitment for both field crew leaders and members. This will help to ensure that there will be enough crews to sample all the areas within the watershed. For the field crew leaders, the training will include more practicum prior to the event. There will also be more emphasis on site location and descriptions.

NEXT STEPS

Data

Because so much more information was collected this year, it will take more time to check the datasheets, to cross-reference site codes, to input, compile and analyze the data, and produce the results.

Currently, the data is being entered into a database. Once analyzed, the data collected from Check Your Watershed Day will be integrated into the databases of local Conservation Authorities and the province of Ontario. The data will be analyzed and a report will be produced to document and share the findings. This information will be used to inform how those watersheds will be managed in the future.

In the interim, Table 2 shows of the flow conditions of sites within the Duffins Creek. About half of the sampled sites had flowing streams at the culverts.

Table 2. The flow conditions of the small streams sampled in culverts of the Duffins Creek Watershed.

DUFFINS CREEK FLOW CONDITIONS					
ZONE	Number of Sites	Flow	Wet	Dry	NA
1	9	4	0	4	1
2	8	7	1	0	0
3	8	3	1	1	3
4	9	5	0	4	0
5	11	8	1	1	0
6	8	2	0	1	5
7	10	4	0	3	3
8	11	8	2	1	0
9	8	4	2	1	1
10	9	3	2	2	2
11	13	6	1	6	0
12	12	1	10	1	0
13	9	6	3	0	0
14	9	4	3	2	0
15	8	2	0	5	1
16	11	4	2	1	4
17	13	10	1	2	0
18	15	8	0	0	7
Total	181	89	29	35	27
%	100	49	17	19	15

Check Your Watershed Day 2008

Check Your Watershed Day will take place on the third Saturday in July. In 2008, it will take place on Saturday, July 19, 2008. The watersheds are yet to be determined. Please check the project website for updates (www.monitoringthemoraine.ca/cywd) and to get involved next year. If a local group or organization would like to host a Check Your Watershed Day event in your community, please contact info@monitoringthemoraine.ca.



**Groups photo from Check Your Watershed Day in Oshawa Creek.
Photo courtesy of Central Lake Ontario Conservation Authority.**

“See you next year!” – participant comment