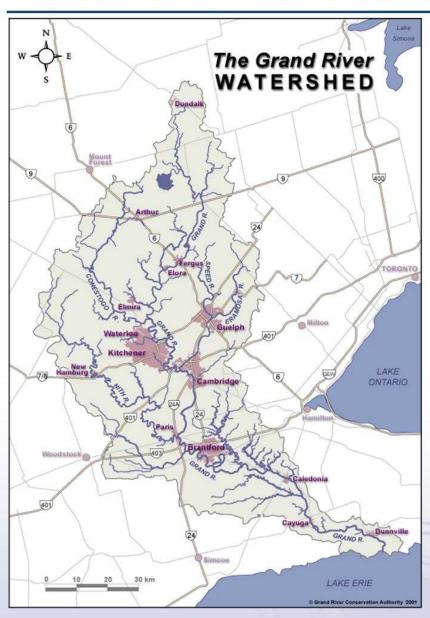


About the Grand River Watershed

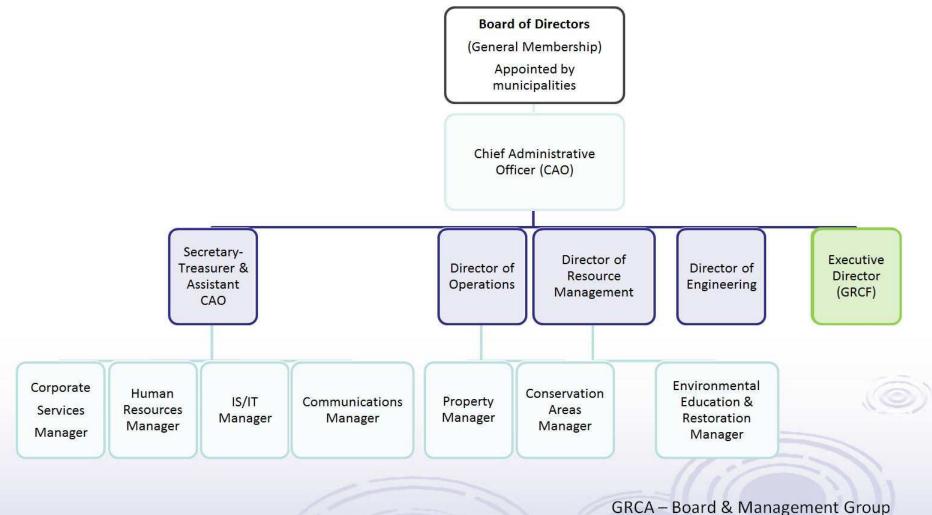




- Largest watershed in Southern Ontario; 300 km long from Dundalk to Lake Erie
- Major tributaries: Conestogo,
 Speed, Eramosa, Nith
- Population: about 1 million
- Rich agricultural region
- More than 50 municipal and Six Nations drinking water systems serving 80% of residents
- 30 municipal and First Nations wastewater treatment plants serving 85% of residents

GRCA Organizational Chart





GRCA Departmental Overview



Administration Division:

 Communications, Finance, Human Resources, Information Systems and Technology

Operations Division:

 Central Services, Conservation Areas, Forestry, Motor Pool, Property



Resource Management Division:

 Conservation Services, Environmental Education, Natural Heritage, Planning

Engineering Division:

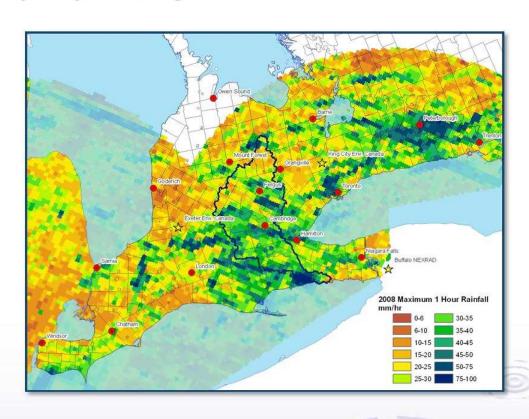
 Dam Operations, Engineering, Groundwater Resources, Source Protection, Surface Water Resources, Water Quality





Protect Life and Minimize Property Damage

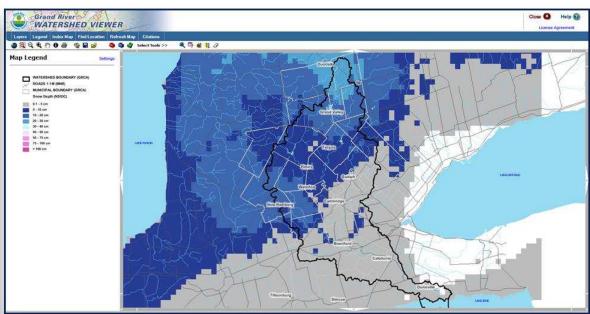
 GRCA shares information like weather radar, and works with neighbouring CAs on flood forecasting and warning, ensuring residents receive best information available during flood events.





Protect Life and Minimize Property Damage





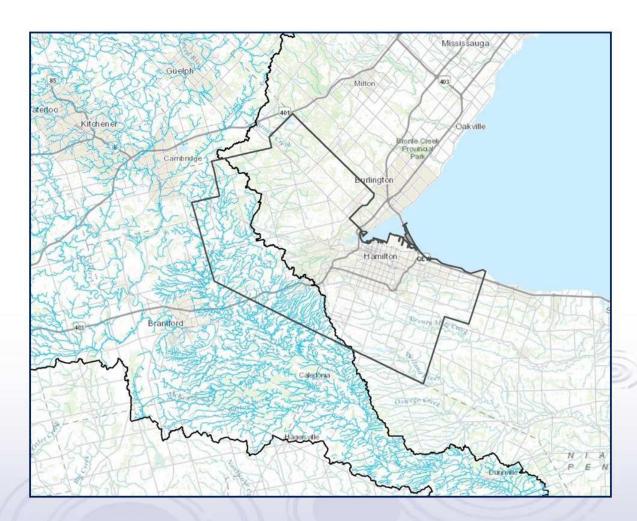
 GRCA assembles and shares snow depth and snow water equivalent estimates from the NOAA, which is useful in assessing flood potential prior to spring breakup.





Protect Life and Minimize Property Damage

 GRCA is working with senior levels of government to find innovative ways to improve floodplain mapping.





Protect Life and Minimize Property Damage

GRCA assesses and applies new technologies on an ongoing basis to:

- Cost effectively update floodplain mapping
- Improve flood forecasting and warning
- Allow adaptation to changing climate
- Provide better information



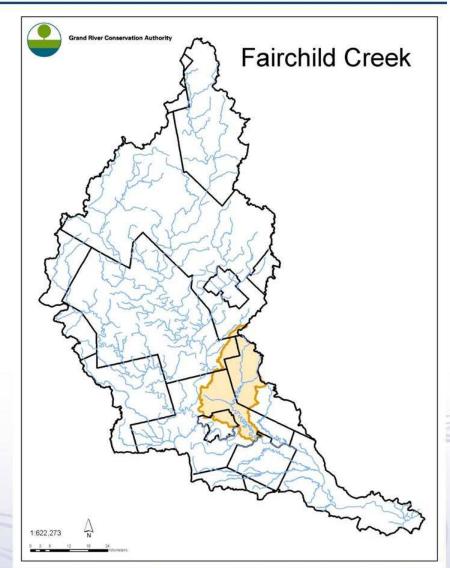




Improve Watershed Health

Subwatershed planning in Fairchild Creek:

- 40% of subwatershed in Hamilton
- Adds one of the highest sediment and phosphorous loads to the Grand River due to clay plains and land uses



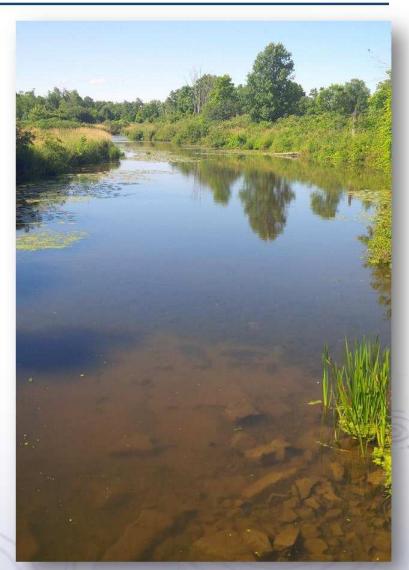




Improve Watershed Health

Subwatershed planning in Fairchild Creek:

- Need to reduce rural and urban nonpoint source pollution
- GRCA is writing a characterisation report for Fairchild Creek funded by Environment Canada (Lake Area Management Plan for Lake Erie)
- Listed as a priority for subwatershed planning (Water Management Plan)



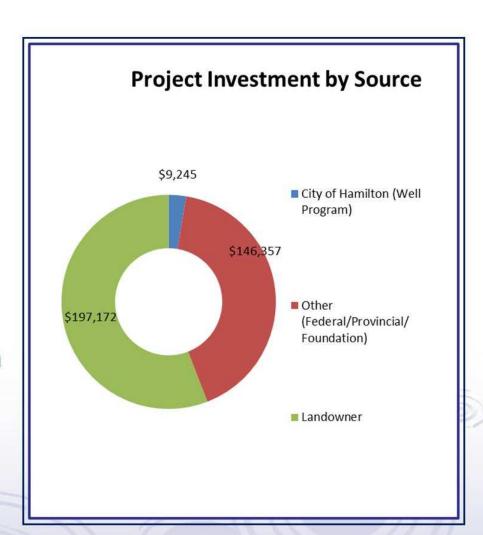


Improve Watershed Health

Rural Water Quality Program (RWQP):

- In 2015 6 projects completed; \$22,700 in grant
- From 2002 to 2015 82
 projects completed;
 \$155,000 in grant provided;
 landowner contribution of
 \$197,000; total investment in
 water quality protection of
 \$352,000



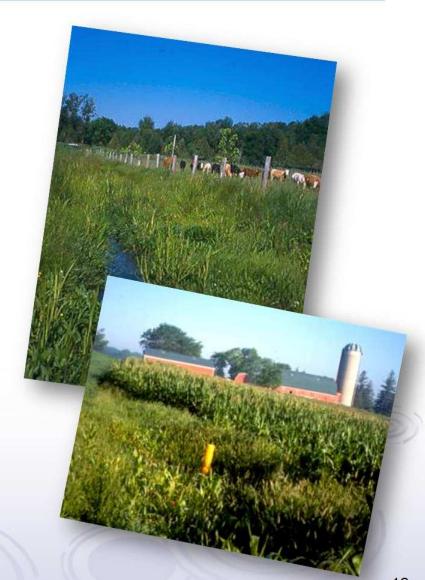




Improve Watershed Health

Hamilton RWQP Project Highlights, 2002-2015:

- 6 Erosion Control structures built
- 11 fencing projects to restrict livestock from 4 km of watercourse
- 6.5 acres of fragile agricultural land retired and planted to trees
- 11 Wells decommissioned

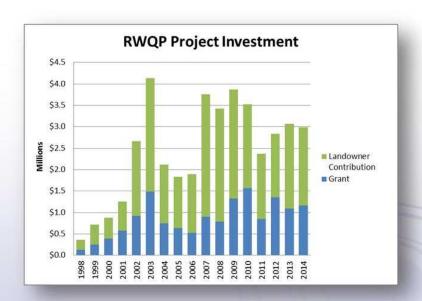


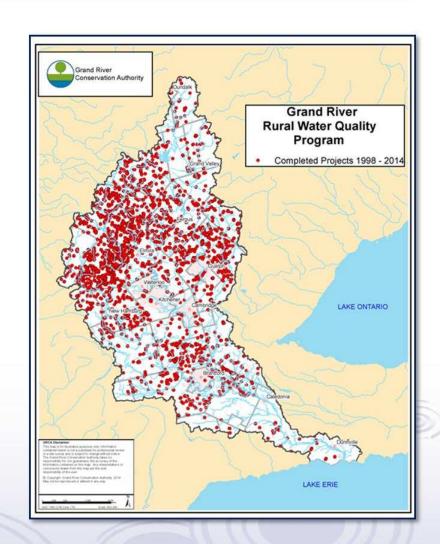


Improve Watershed Health

Watershed RWQP Success, 1998-2015:

- Over 5000 projects
- \$ 15 million in grant
- More than \$42 million invested



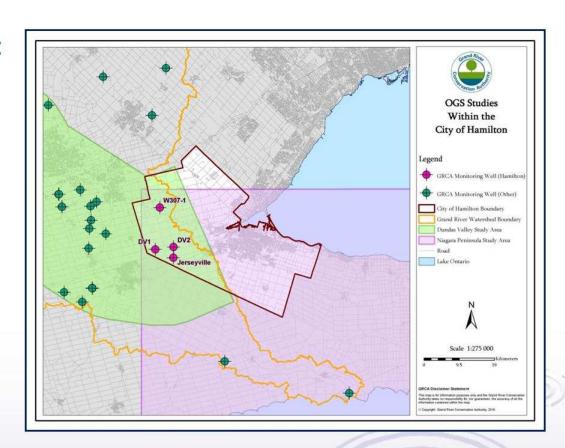




Improve Watershed Health

Ontario Geological Survey:

- High quality geological mapping/models across Ontario
- Over 1 million dollars invested in geological mapping in City of Hamilton
- Dundas Valley project (2012) to map buried Dundas Valley feature



- Niagara Region mapping project (current)
- •GRCA partners with OGS to obtain low-cost monitoring wells

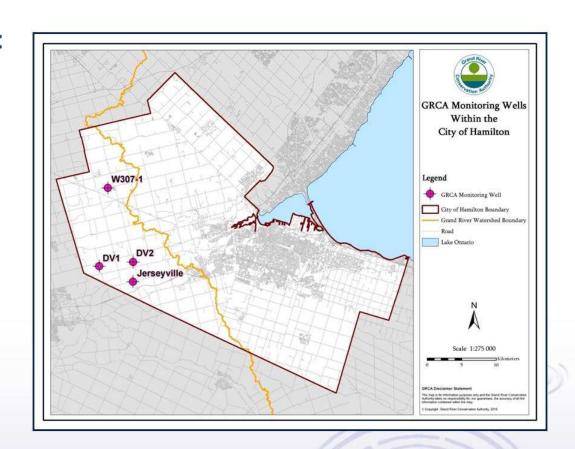




Improve Watershed Health

Groundwater Monitoring:

- 57 long-term monitoring wells across the watershed
- 4 located in the City of Hamilton
- Wells are equipped to measure hourly groundwater levels, temperature and are sampled annually for chemistry analysis





Improve Watershed Health





Improve Watershed Health

Large fill operations:

- Properties with a large amount of fill dumped on them are a problem for both the municipality and the conservation authorities.
- GRCA is working with the City to investigate illegal fill operations.
- GRCA is also working with the province and other stakeholders to address issue and identify solutions that the Ministry of Environment and Climate Change (MOECC) should consider.



Improve Watershed Health

MOA for planning applications:

- GRCA and other conservation authorities provide technical advice to the City of Hamilton on Planning Act applications through a Memorandum of Agreement (MOA).
- Advice includes input from biologists, water resource engineers and resource planners on natural hazards, wetlands, fisheries, storm water and subwatershed planning.
- This arrangement helps the City access technical experts on these planning files.



Connect People with the Environment

Outdoor Education opportunities:

 Nature Centre programs available to schools, providing unique, hands-on learning

Outdoor Recreation opportunities:

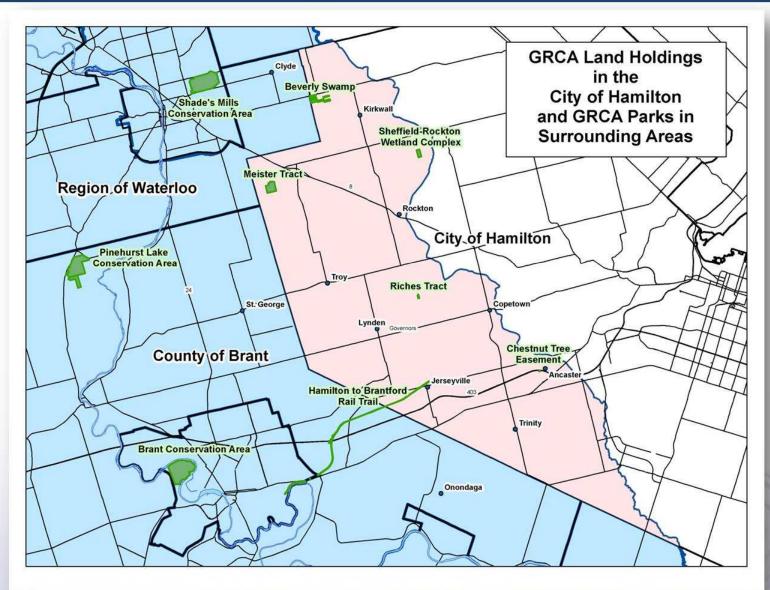
 Brant, Pinehurst Lake, Rockwood and Shade's Mills Conservation Areas are only a 30 minute drive





GRCA Landholdings

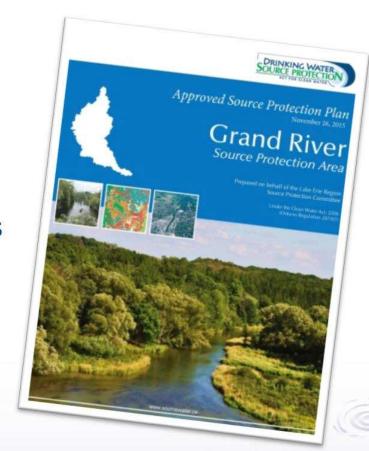




GRCA 2015 Accomplishments



- Grand River Source Protection Plan approved December 3, 2015
- 2015 record-breaking year for park revenue
- Rural Water Quality Program GRCA approved for a multi-year Great Lakes Agricultural Stewardship Grant
- Canada 150 Fund GRCA approved for 3 grants totalling \$316,750 [Apps' Mill Nature Centre, Kay Marston Pavilion (Elora Gorge) and FWR Dickson Nature Trail & Boardwalk]



Addressing EAB - Tree removals ongoing, and began in 2014

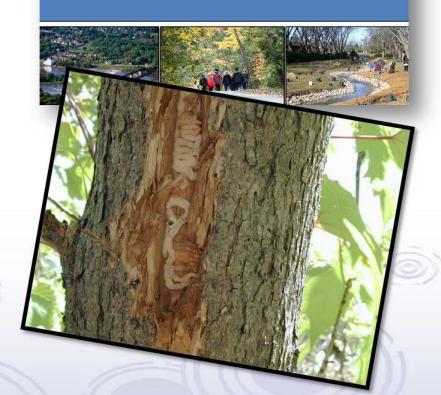
GRCA 2016 Priorities & Challenges



- Advancement of the Conservation Authorities Act Review
- Expanded winter programming
- Watershed-wide flood vulnerable sites mapping
- Continued collaboration on addressing the issue of illegal fill operations
- Climate change is an ongoing concern
- Hazard tree management ongoing due to Emerald Ash Borer

Conservation Authorities Act

A review of the roles, responsibilities, funding and governance of conservation authorities under the Conservation Authorities Act.







Five Year Plan

July 24, 2015
 Five Year Forecast, General Membership

Oct-Dec, 2015 Communication with Municipal Staff as

required

2016 Budget

Sept 25, 2015 Draft #1 to General Membership

Nov/15 to Feb/16 Presentations to municipal councils

Jan 22, 2016 Draft #2 to General Membership

Jan 26, 2016 Municipalities advised of Meeting Date for

Budget Approval

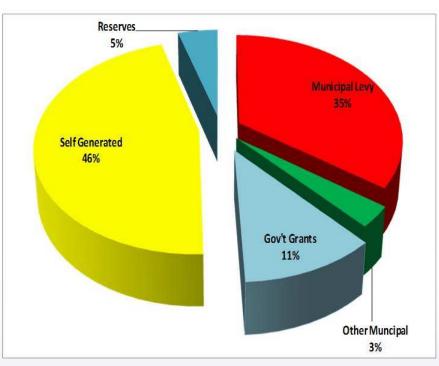
Feb 26, 2016
 Board Approval, 2016 Budget & Levy

(AGM)

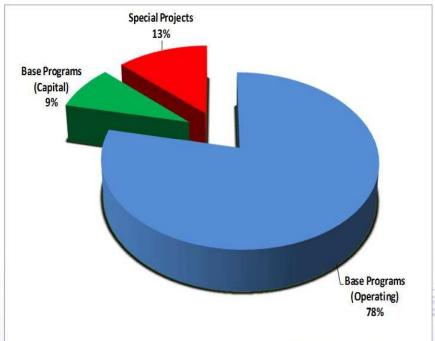
GRCA 2016 Budget - \$30.9 Million



Revenue



Expenditures



GRCA 2016 Budget - Revenue



Revenue Categories:

Have remained consistent in relative size year over year

General Municipal Levy:

- Increasing by 2.5% to \$10,809,000 in 2016
 - Operating Levy \$9,809,000
 - Capital Levy \$1,000,000

Special Projects:

Expenses are offset 100% by special funding sources.

No general municipal levy is used to fund these projects.



GRCA Budget 2016 Summary

4	Grand Total	29,538,938	30,871,773	1,332,835	4.5%
С	Total Special Programs	3,375,000	3,966,500	591,500	17.5%
В	Total "Base" Capital	2,549,000	2,672,000	123,000	4.8%
A	Total "Base" Operating	23,614,938	24,233,273	618,335	- 2.6%
	Total Expenditures	2015 Budget	2016 Budget	Incr (Decr)	% Change

<u>Total Revenue</u>	2015 Budget	2016 Budget	Incr (Decr)	% Change
Municipal General Levy	10,548,000	10,809,000	261,000	2.5%
Other Municipal Funding	930,000	980,000	50,000	5.4%
Other Government Grants	3,005,073	3,445,073	440,000	14.6%
Self-Generated Revenue	13,807,865	14,214,700	406,835	2.9%
Funding From Reserves	1,248,000	1,423,000	175,000	14.0%
Grand Total	29,538,938	30,871,773	1,332,835	4.5%



General Municipal Levy for 2016

DRAFT-January 22 2016

	% CVA in	2015 CVA		CVA-Based	2016 Budget	2016 Budget	2016 Budget	Actual	
	Watershed	(Modified)	CVA in Watershed	Apportionment	Operating Levy	Capital Levy	Total Levy	2015 Levy	% Change
Brant County	84.0%	5,252,214,719	4,411,860,364	3.1%	306,970	31,295	338,265	331,417	2.1%
Brantford C	100.0%	11,518,641,744	11,518,641,744	8.2%	801,448	81,705	883,153	874,765	1.0%
Amaranth Twp	82.0%	601,097,065	492,899,593	0.3%	34,295	3,496	37,791	37,059	2.0%
East Garafraxa Twp	80.0%	457,611,945	366,089,556	0.3%	25,472	2,597	28,069	27,708	1.3%
Town of Grand Valley	100.0%	335,330,796	335,330,796	0.2%	23,332	2,379	25,711	24,572	4.6%
Melancthon Twp	56.0%	439,537,890	246,141,218	0.2%	17,126	1,746	18,872	18,486	2.1%
Southgate Twp	6.0%	760,985,708	45,659,142	0.0%	3,177	324	3,501	3,415	2.5%
Haldimand County	41.0%	5,817,485,288	2,385,168,968	1.7%	165,956	16,919	182,875	179,879	1.7%
Norfolk County	5.0%	7,861,564,751	393,078,238	0.3%	27,350	2,788	30,138	29,500	2.2%
Halton Region	10.3%	33,221,958,264	3,409,706,633	2.4%	237,242	24,186	261,428	250,780	4.2%
Hamilton City	4.7%	71,180,309,247	3,345,474,535	2.4%	232,772	23,730	256,502	251,184	2.1%
Oxford County	38.1%	3,333,194,701	1,269,930,071	0.9%	88,360	9,008	97,368	94,830	2.7%
North Perth T	2.0%	1,616,649,442	32,332,989	0.0%	2,250	229	2,479	2,393	3.6%
Perth East Twp	40.0%	1,466,296,556	586,518,623	0.4%	40,809	4,160	44,969	43,780	2.7%
Waterloo Region	100.0%	80,372,866,859	80,372,866,859	57.0%	5,592,205	570,111	6,162,316	6,004,535	2.6%
Centre Wellington Twp	100.0%	3,974,882,714	3,974,882,714	2.8%	276,566	28,195	304,761	296,567	2.8%
Erin T	49.0%	2,127,518,678	1,042,484,152	0.7%	72,534	7,395	79,929	78,245	2.2%
Guelph C	100.0%	20,992,297,542	20,992,297,542	14.9%	1,460,608	148,905	1,609,513	1,567,858	2.7%
Guelph Eramosa Twp	100.0%	2,240,482,175	2,240,482,175	1.6%	155,889	15,892	171,781	169,228	1.5%
Mapleton Twp	95.0%	1,272,189,231	1,208,579,769	0.9%	84,091	8,573	92,664	89,763	3.2%
Wellington North Twp	51.0%	1,336,568,107	681,649,734	0.5%	47,428	4,835	52,263	51,028	2.4%
Puslinch Twp	75.0%	2,167,717,851	1,625,788,388	1.2%	113,120	11,532	124,652	121,008	3.0%
Total		258,347,401,273	140,977,863,803	100.00%	9,809,000	1,000,000	10,809,000	10,548,000	2.5%