

Grand River

Length

300 km

Area

6,800 km² larger than Prince Edward Island



Flows into

Lake Erie at Port Maitland

Length of rivers and streams

11,000 km

4 major tributaries

Speed, Eramosa, Nith and Conestogo



Population

Close to one million

Boundaries

39 municipalities and two First Nations

80% of people live in five cities:

Kitchener, Waterloo, Guelph, Cambridge, Brantford



Farming

70% of watershed is agricultural land

Drinking water

73% wells 24 % river 3 % lake

Wastewater

30 sewage treatment plants



- The Grand River lies at the heart of one of the richest, fastest growing regions in Ontario.
- The vitality of the watershed has been linked to the river and the natural environment.
- The Grand River watershed faces important and evolving challenges...



Critical Issues

Population Growth

 Need for water supplies, sewage treatment, groundwater recharge



Critical Issues

Extensive Agriculture

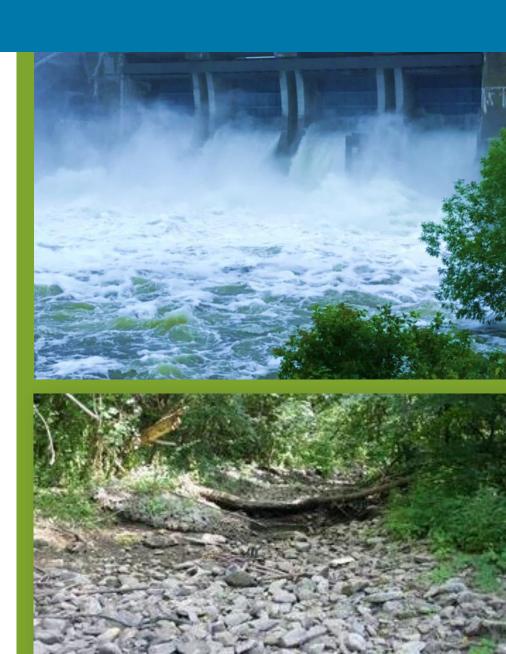
- impact on water quality and quantity
- erosion needs to be addressed to protect farmland and water quality



Critical Issues

Climate Change

the issue of our time –
 presents new
 challenges including
 increased frequency
 of extreme events
 (floods, droughts, ice
 storms, etc.)



GRCA Strategic Plan

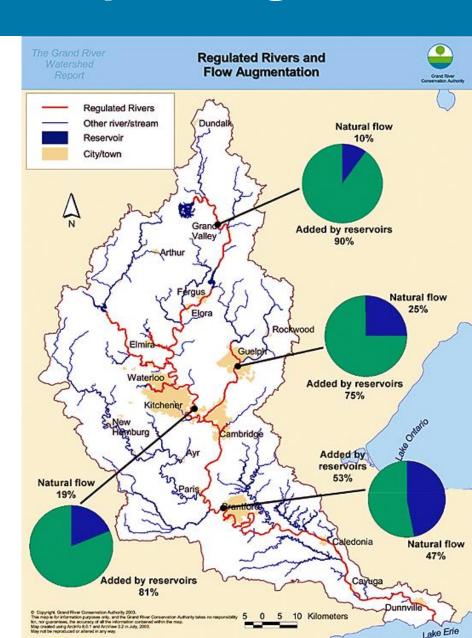
Objectives:

- 1. Protect life and minimize property damage
- 2. Improve watershed health
- 3. Connect people with the environment



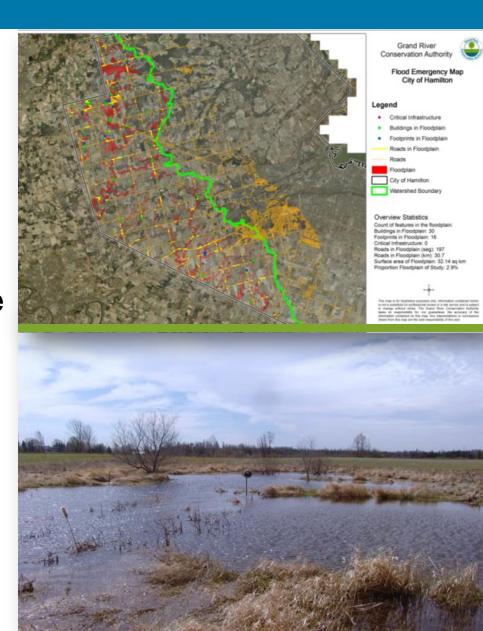
Protect life and minimize property damage

 Seven dams reservoirs actively managed to reduce flood damages and maintain flows



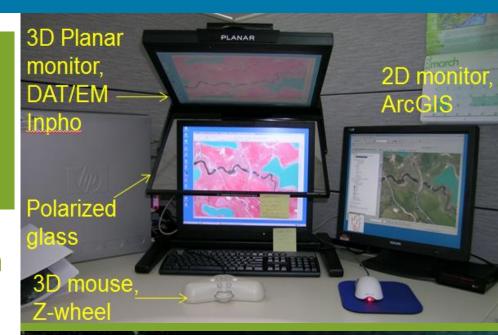
Protect life and minimize property damage

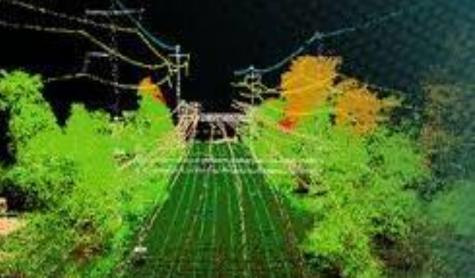
- Working with senior levels of government to find innovative ways to improve floodplain mapping
- Ability to regulate hazard areas and prevent building in wetlands



Protect life and minimize property damage

- Deliver value and innovation
- Improved flood forecasting and warning





Protect life and minimize property damage



- Improved monitoring and preparedness
- Adapting to climate change



Protect life/ property & Improve watershed health

Planning and Development

- Through a Memorandum of Agreement with the City, GRCA provides technical advice on Planning Act applications
- Advice includes input from biologist/ecologist, water resource engineer and resource planner



Improve watershed health

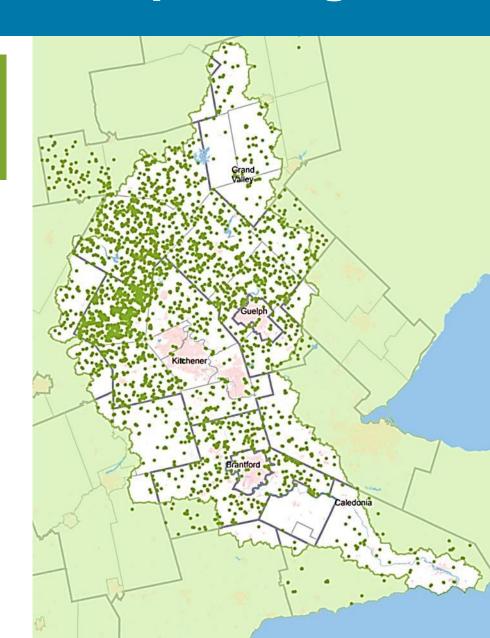
- Grand River Source Protection Plan took effect July 1, 2016
- Province funded 100% of Plan's development
- New municipal supply wells currently being drilled to meet capacity needs in Lynden and St. George



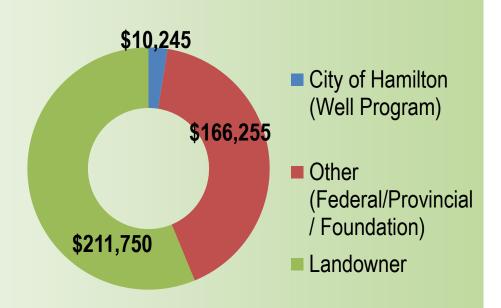
Improve watershed health

Rural Water Quality Program (RWQP) Watershed Success 1998-2016:

- Over 5,500 projects
- \$16 million in grant
- More than \$45 million invested

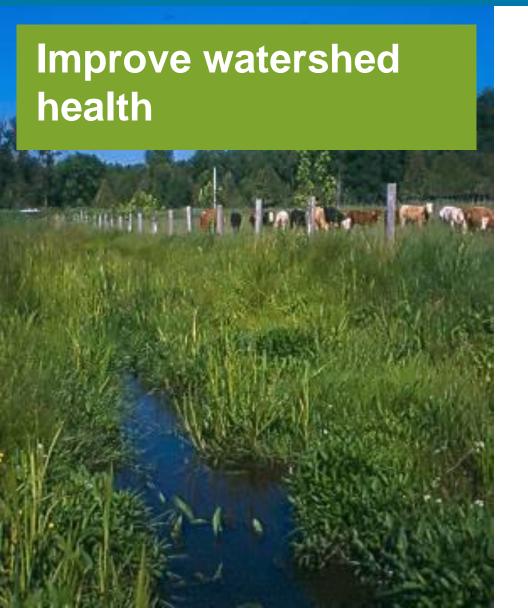


Improve watershed health



Hamilton RWQP since 2002

- 99 completed projects
- \$176,500 in grants
- Landowner contribution of \$211,750
- Total investment in water quality protection of \$388,250



Hamilton RWQP Project Highlights since 2002

- 6 Erosion Control structures built
- 11 fencing projects to restrict livestock from 4 km of watercourse
- 16 hectares of fragile agricultural land retired and planted to trees
- 12 wells decommissioned

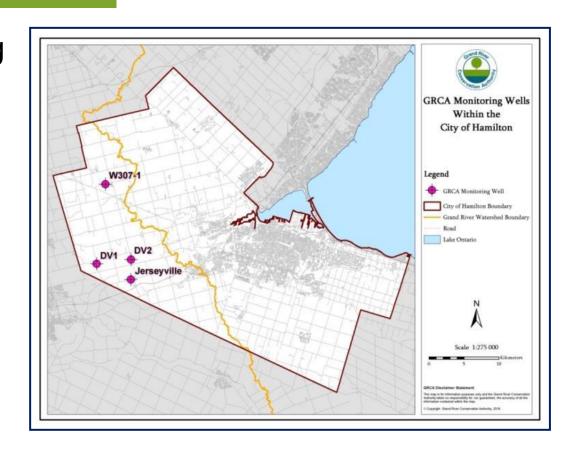
Improve watershed health

- Subwatershed planning in Fairchild Creek remains a priority in the Water Management Plan
- Listed as a priority for subwatershed planning (Water Management Plan)



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

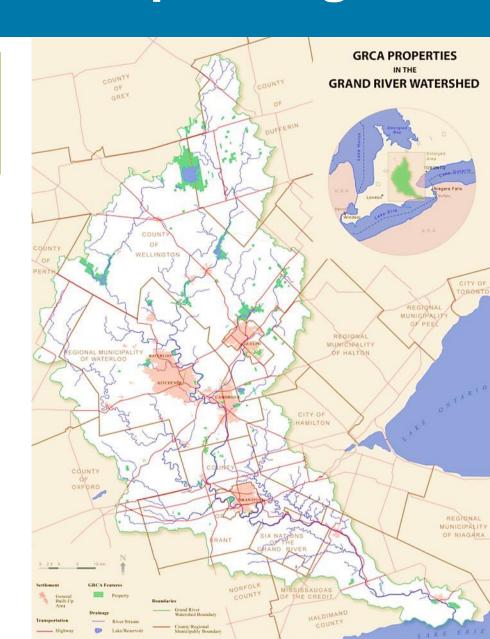


Groundwater Monitoring



Connect people with the environment

- More than 48,000 acres of recreational and natural land
- Includes 11 parks, Luther
 Marsh Wildlife Management
 Area, 6 natures centres, as
 well as cottage lots, farm
 leases and rail trails
- Current initiatives include wind-down of residential tenancy program, evaluation of other program areas and hazard tree management



Connect people with the environment

GRCA Parks/Conservation Areas

- Weather dependent
- Revenue forecasts are prone to significant fluctuations
- Record revenue from 2015-2017 has helped fund capital projects

Natural Areas

 Increasing management and cost pressures due to population growth and changing demographics



Some thoughts on Nature ...

If we teach them, they will understand it. If they understand it, they will value it. If they value it, they will protect it.

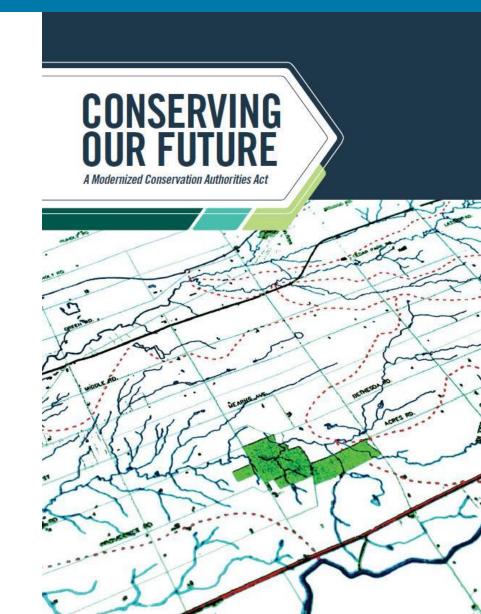
The Future needs: Biologists,
Engineers, Resource Managers,
Planners, Accountants,
Educators, Economists. We
must all communicate,
collaborate and cooperate.



Connect people with the environment

New Conservation Authorities Act

- New Conservation
 Authorities Act was passed on December 12, 2017 as part of Bill 139 Building Better Communities and Conserving Watersheds
- The act is accompanied by a new document, Conserving Our Future: A Modernized Conservation Authorities Act (MNRF)



New Conservation Authorities Act

Levies

No significant changes in Levy Apportionment Formula; The New Act defines three types of levies:

Capital (projects)

- For works (capital expenditures) undertaken in furtherance of the Authority's objects
- Apportioned based on benefit
- Municipalities can appeal the apportionment to the Local Planning Appeal Tribunal

Maintenance

- For expenditures in relation to the operation or maintenance of a project
- Apportioned based on benefit per Regulation 670/00 (by agreement or CVA)
- Municipalities can appeal the apportionment to the Mining and Lands Tribunal

Administration

- For all costs except capital (projects) and maintenance
- Apportioned in accordance with Regulation 670/00 (based on CVA)
- CA can establish a minimum Administration Levy
- Municipalities can appeal the apportionment to the Mining and Lands Tribunal

Timetable

September 22, 2017	→ Draft #1 to General Meeting
January 22, 2018	→ Municipalities advised of Meeting Date for Budget
January 26, 2018	→ Draft #2 to General Meeting
February 23, 2018	→ Board Approval, 2018 Budget & Levy (AGM)

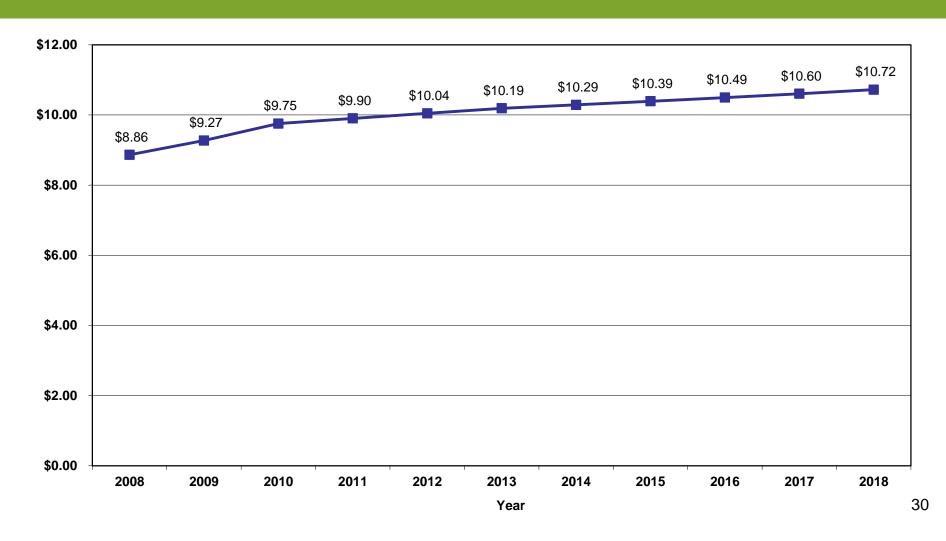
(Presentations to municipal councils between October 2017 and February 2018 as required)

Overview

- 2018 expenditures: \$32.0 million (\$31 million in 2017)
- Municipal dollars highly leveraged (\$1 in municipal levy matched by \$2 from other sources)
- Per capita municipal levy: \$10.72



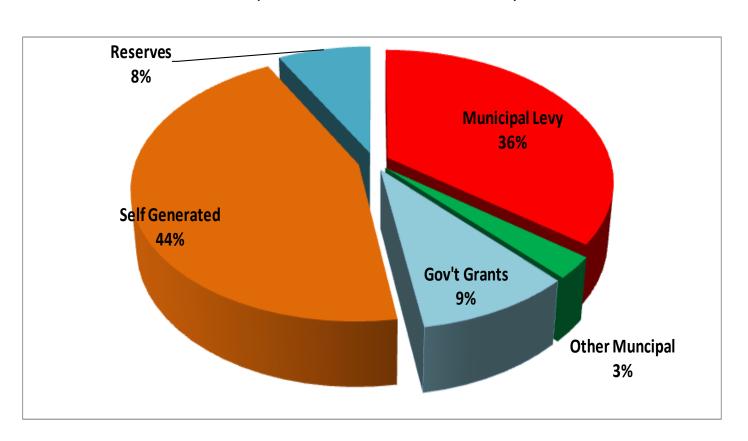
GRCA Per Capita Levy 2008 to 2018



Revenue by Source

Total 2018 Budget Revenue = \$32.0 Million

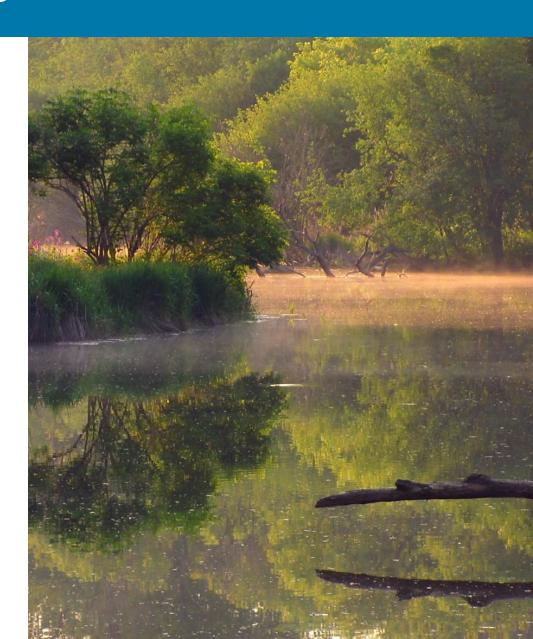
(\$ 31.0 Million in 2017)



Revenue

General Municipal Levy

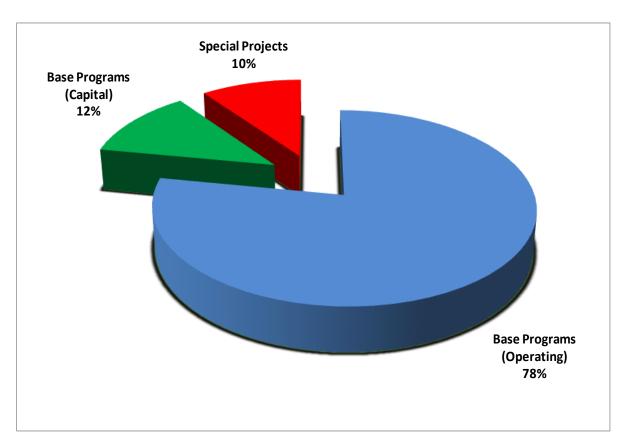
- Increasing by 2.5% to \$11,352,000 in 2018
- Operating Levy (Admin., Programs and Maintenance): \$10,302,000
- Capital Levy (Water Mgmt. Projects): \$1,050,000



Expenditures by Category

2018 Budget Expenditures = \$32.0 Million

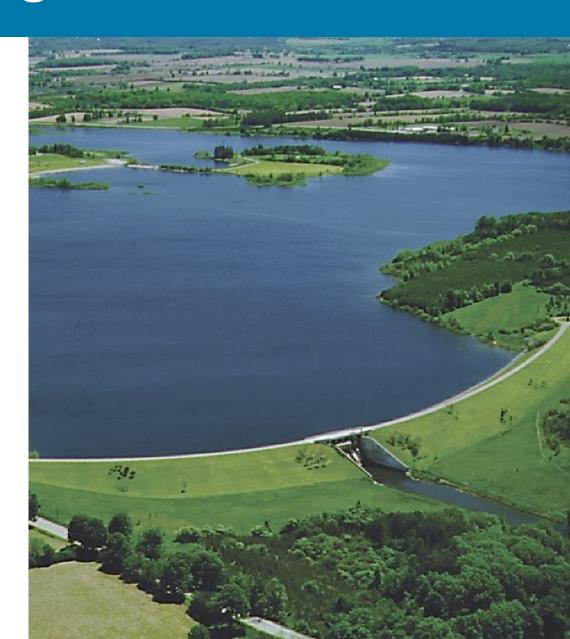
(\$ 31.0 million in 2017)



Expenditures

Operating Budget (\$24.9 million)

- Watershed
 Management (dams, flood forecasting, planning, lands
- Conservation Areas
- Corporate Services and Communication



Expenditures

Capital Budget (\$3.8 million)

- Water Control Structures
- Conservation Areas



Expenditures

Special Projects (\$3.2 million)

- Expenses are offset 100% by special funding sources
- Do not use general municipal levy to fund these projects
- Special Projects include Floodplain Mapping, Children's Water Festivals, Water Management Plan, Source Protection Program, Emerald Ash Borer, Rural Water Quality Program, etc.



Levy Apportionment in 2018

Mining and Lands Commissioner Decision Dec 21, 2017

Background

- 26.75% of the geographic area of Hamilton is in the Grand River Watershed
 - ➤ Hamilton would pay approximately 12.2% of GRCA's levy
- 5% of the assessment of Hamilton is in the Grand River Watershed
 - Hamilton would pay approximately 2.4% of GRCA's levy

2001/2004 Agreement

- City, GRCA, NPCA, Cons. Hamilton and Cons. Halton agreed to use estimated assessment instead of geographic area
- Formalized by Resolution of the City and its four Conservation Authorities
- Agreement was abandoned by NPCA in 2015. City of Hamilton appealed.

December 21, 2017 Ruling

- The agreement is invalid because:
 - There was no written agreement, and,
 - Resolutions of support were not passed by all other participating municipalities
- Conservation Authorities must use the CVA formula outlined in Regulation 670/00
- GRCA has requested direction from MNRF for 2018

Grand River Conservation Authority Summary of Municipal Levy - 2018 Budget

DRAFT - with adjustment for Hamilton

	% CVA in	2017 CVA		CVA-Based	2018 Budget	2018 Budget	2018 Budget	Actual	
	Watershed	(Modified)	CVA in Watershed	Apportionment	Operating Levy	Capital Levy	Total Levy	2017 Levy	% Change
Brant County	84.0%	5,778,502,491	4,853,942,092	3.20%	329,962	33,630	363,592	354,137	2.7%
Brantford C	100.0%	12,178,149,735	12,178,149,735	8.04%	827,847	84,376	912,223	897,489	1.6%
Amaranth Twp	82.0%	651,361,270	534,116,241	0.35%	36,308	3,701	40,009	39,009	2.6%
East Garafraxa Twp	80.0%	498,143,467	398,514,773	0.26%	27,090	2,761	29,851	29,452	1.4%
Town of Grand Valley	100.0%	396,850,584	396,850,584	0.26%	26,977	2,750	29,727	27,291	8.9%
Melancthon Twp	56.0%	481,524,449	269,653,692	0.18%	18,331	1,868	20,199	19,694	2.6%
Southgate Twp	6.0%	815,068,745	48,904,125	0.03%	3,324	339	3,663	3,620	1.2%
Haldimand County	41.0%	5,888,880,157	2,414,440,864	1.59%	164,129	16,728	180,857	183,117	-1.2%
Norfolk County	5.0%	8,186,035,325	409,301,766	0.27%	27,824	2,836	30,660	30,831	-0.6%
Halton Region	10.3%	36,402,339,213	3,765,423,823	2.48%	255,966	26,089	282,055	271,150	4.0%
Hamilton City	4.7%	77,135,348,277	3,625,361,369	2.39%	246,445	25,118	271,563	263,512	3.1%
Oxford County	37.7%	3,548,847,438	1,337,821,840	0.88%	90,943	9,269	100,212	99,302	0.9%
North Perth T	2.0%	1,770,295,097	35,405,902	0.02%	2,407	245	2,652	2,563	3.5%
Perth East Twp	40.0%	1,600,912,173	640,364,869	0.42%	43,531	4,437	47,968	45,952	4.4%
Waterloo Region	100.0%	86,368,658,180	86,368,658,180	56.99%	5,871,175	598,402	6,469,577	6,314,548	2.5%
Centre Wellington Twp	100.0%	4,246,127,695	4,246,127,695	2.80%	288,644	29,419	318,063	312,036	1.9%
Erin T	49.0%	2,223,001,923	1,089,270,942	0.72%	74,047	7,547	81,594	81,701	-0.1%
Guelph C	100.0%	22,830,352,868	22,830,352,868	15.06%	1,551,964	158,179	1,710,143	1,646,748	3.8%
Guelph Eramosa Twp	100.0%	2,374,434,372	2,374,434,372	1.57%	161,409	16,451	177,860	175,520	1.3%
Mapleton Twp	95.0%	1,408,733,893	1,338,297,198	0.88%	90,975	9,272	100,247	95,992	4.4%
Wellington North Twp	51.0%	1,432,770,017	730,712,708	0.48%	49,672	5,063	54,735	53,415	2.5%
Puslinch Twp	75.0%	2,216,998,019	1,662,748,514	1.10%	113,030	11,520	124,550	127,922	-2.6%
<u>Total</u>		278,433,335,385	151,548,854,151	100.00%	10,302,000	1,050,000	11,352,000	11,075,000	2.5%

Grand River Conservation Authority Summary of Municipal Levy - 2018 Budget

DRAFT-January 8th 2018

	% CVA in	2017 CVA		CVA-Based	2018 Budget	2018 Budget	2018 Budget	Actual	
	Watershed	(Modified)	CVA in Watershed	Apportionment	Operating Levy	Capital Levy	Total Levy	2017 Levy	% Change
Brant County	84.0%	5,778,502,491	4,853,942,092	2.88%	296,667	30,237	326,904	354,137	-7.7%
Brantford C	100.0%	12,178,149,735	12,178,149,735	7.22%	744,313	75,862	820,175	897,489	-8.6%
Amaranth Twp	82.0%	651,361,270	534,116,241	0.32%	32,645	3,327	35,972	39,009	-7.8%
East Garafraxa Twp	80.0%	498,143,467	398,514,773	0.24%	24,357	2,482	26,839	29,452	-8.9%
Town of Grand Valley	100.0%	396,850,584	396,850,584	0.24%	24,255	2,472	26,727	27,291	-2.1%
Melancthon Twp	56.0%	481,524,449	269,653,692	0.16%	16,481	1,680	18,161	19,694	-7.8%
Southgate Twp	6.0%	815,068,745	48,904,125	0.03%	2,989	305	3,294	3,620	-9.0%
Haldimand County	41.0%	5,888,880,157	2,414,440,864	1.43%	147,568	15,040	162,608	183,117	-11.2%
Norfolk County	5.0%	8,186,035,325	409,301,766	0.24%	25,016	2,550	27,566	30,831	-10.6%
Halton Region	10.3%	36,402,339,213	3,765,423,823	2.23%	230,138	23,456	253,594	271,150	-6.5%
Hamilton City	26.8%	77,135,348,277	20,633,705,664	12.24%	1,261,106	128,534	1,389,640	263,512	427.4%
Oxford County	37.7%	3,548,847,438	1,337,821,840	0.79%	81,766	8,334	90,100	99,302	-9.3%
North Perth T	2.0%	1,770,295,097	35,405,902	0.02%	2,164	221	2,385	2,563	-6.9%
Perth East Twp	40.0%	1,600,912,173	640,364,869	0.38%	39,138	3,989	43,127	45,952	-6.1%
Waterloo Region	100.0%	86,368,658,180	86,368,658,180	51.24%	5,278,740	538,019	5,816,759	6,314,548	-7.9%
Centre Wellington Twp	100.0%	4,246,127,695	4,246,127,695	2.52%	259,518	26,451	285,969	312,036	-8.4%
Erin T	49.0%	2,223,001,923	1,089,270,942	0.65%	66,575	6,785	73,360	81,701	-10.2%
Guelph C	100.0%	22,830,352,868	22,830,352,868	13.54%	1,395,362	142,218	1,537,580	1,646,748	-6.6%
Guelph Eramosa Twp	100.0%	2,374,434,372	2,374,434,372	1.41%	145,122	14,791	159,913	175,520	-8.9%
Mapleton Twp	95.0%	1,408,733,893	1,338,297,198	0.79%	81,795	8,337	90,132	95,992	-6.1%
Wellington North Twp	51.0%	1,432,770,017	730,712,708	0.43%	44,660	4,552	49,212	53,415	-7.9%
Puslinch Twp	75.0%	2,216,998,019	1,662,748,514	0.99%	101,625	10,358	111,983	127,922	-12.5%
Total		278,433,335,387	168,557,198,449	100.00%	10,302,000	1,050,000	11,352,000	11,075,000	2.5%

Questions?

