

Stormwater Charge

Finance, Administration and Audit Committee, November 6, 2017



Purpose of the Report

- At Finance, Administration and Audit Committee on September 20, 2017, New Business was introduced:
 - Staff provide a report which outlines how the stormwater charge is applied to rural areas
 - Provide an update on the implementation of the stormwater charge and feedback received

Stormwater Services are intended to protect property and the environment



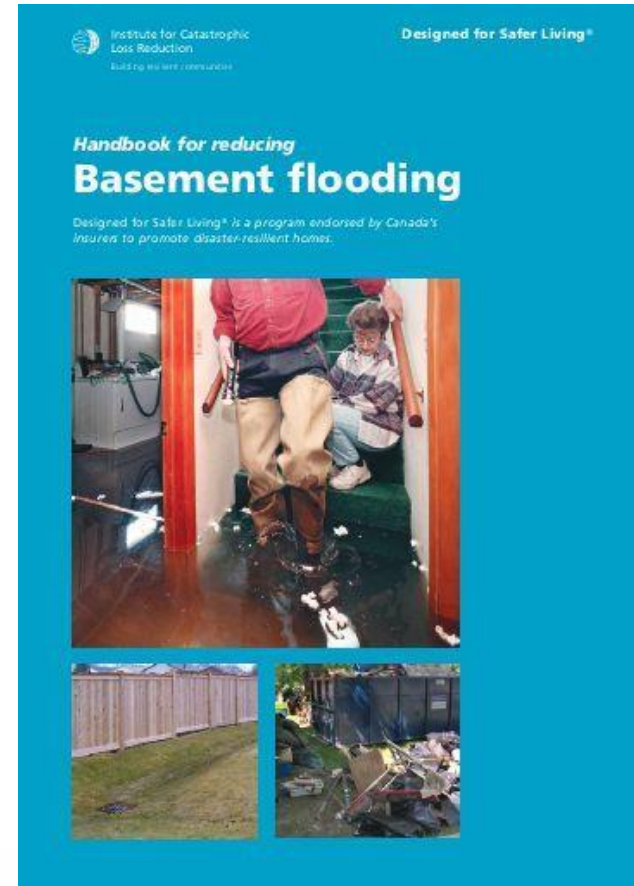
Proactive Stormwater Management Necessary to Mitigate the Effects of Climate Change

- 2017 Flooding
 - Spring – Western Quebec and Parts of Ontario
 - August – Windsor received 45-88 mm of rain on Monday, August 28 and another 50 on Tuesday August 29
 - October 30 - Ottawa



Impact of flooding to citizen

- Property damage
 - Financial
 - Insurance rates can go up for those who have experienced flooding
 - some homes cannot purchased basement flooding insurance
 - Damage to basements can be costly to repair
 - Emotional
 - Precious heirlooms can be destroyed
 - Emotional pain as flooding impacts a home many times over



“Canadian cities not ready for ‘weather whiplash’”

Toronto Star, August 22, 2015

- More frequent severe weather
- Insurance claim payouts from severe weather events average \$ 1 billion annually over the last several years
- Canadian municipalities are in an excellent position to build resilience to climate change



Vaughan Council approved a Stormwater Charge

- On March 22, 2016, Council approved
 - A variable stormwater charge to be applied to properties in the City
 - That the stormwater charge be calculated based on typical stormwater run-off
 - That government agencies, schools, places of worship and non-profits be exempt based on the same criteria and legislation for exempting property through the Assessment Act
 - The implementation of processes and plans to support the stormwater charge

Vaughan is one of nine Ontario Municipalities to show leadership in adoption of a stormwater charge

Stormwater Charge Implementation

Stormwater Charge Communication- By the Numbers

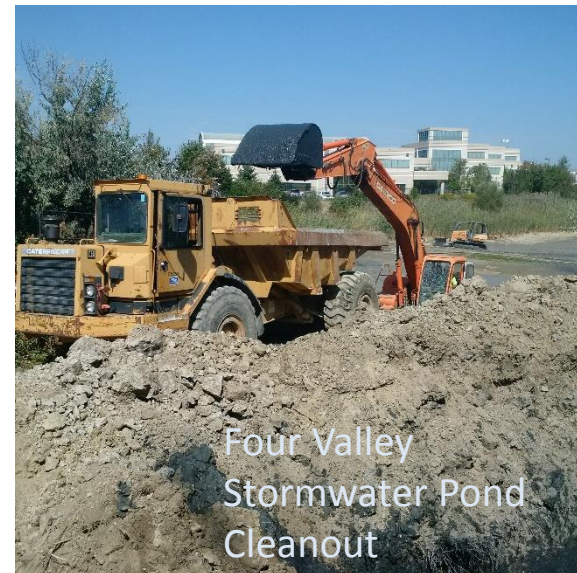
- **110** – 60 second radio promotions on 105.9 The Region
- **9** – ¼ page newspaper ads in Lo Specchio, Vaughan Citizen, Thornhill Liberal
- **205,000** – utility bill buck slips inserts
- **2,283** - views of the ‘What is stormwater’ educational video
- **80,000** – homes received 2016 summer edition of Vaughan At Work featuring SW charge
- **7, 035** – targeted ads on social media platforms
- **3,523** – letters to agricultural/vacant property owners
- **5** - stories appeared on local media outlets

Stormwater Charge Applied to Properties

Property Type	Annual Charge for 2017
Industrial Commercial Institutional (ICI) (small - < 1acres)	\$41.28
ICI (medium – 1-10 acres)	\$1,066.21
ICI (large > 10 acres)	\$16,740.78
Agricultural/Vacant	\$694.65
Residential (Low)- single residential	\$50.00
Residential (Med) – townhomes	\$30.61
Residential (High) - condos	\$184.00

Stormwater Charge Introduced in 2017 Budget

- 2017 Stormwater budget - \$12 million
- 2017 Stormwater Budget included:
 - Capital Projects to mitigate flooding in Thornhill and Woodbridge
 - Enhanced the Operations and Maintenance of stormwater infrastructure
 - Reserve Contribution



Erosion Control initiatives

- Prioritize watershed areas for erosion hazard sites causing public safety, environment to be at risk
- Monitor high risk erosion site
- Mitigate



Federal and Provincial Governments Provide Grants to help Municipalities mitigate the effects of Climate Change

- 2017 Vaughan received a Canadian Water and Wastewater Fund Grant for \$ 20.5 million
 - \$3.8 million for stormwater projects
 - Stormwater management pond (SWP) cleanouts – McNaughton, Fossil Hill, Sugar Bush, Exchange Way, Fairfax.
 - Church Street Stormwater pumping station evaluation
- Today's FAA includes a report asking for Council approval to apply for a grant from the Federation of Canadian Municipalities to fund stormwater pilots



Calculating the Stormwater Charge

New Business From Sept 20, 2017 FAA

The Finance, Administration and Audit Committee recommends that staff report back to a future Finance, Administration and Audit Committee meeting on the Wastewater Annual charges for **rural areas.**

There are three property categories which fall in to rural areas:

Industrial/Commercial/Institutional

Agricultural/Vacant

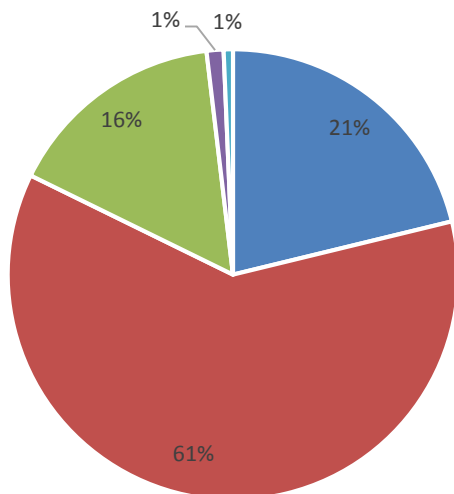
Residential

Steps to determine Stormwater Charge

- Divide the City into 7 property categories
- Determine the area of the land for each property category
- Determine the % of this land which is impermeable (water cannot penetrate)
- Divide the budget required for the stormwater program into the % for each property category
- Divide that cost by the number of properties in each category

Stormwater Charge Applied to Properties

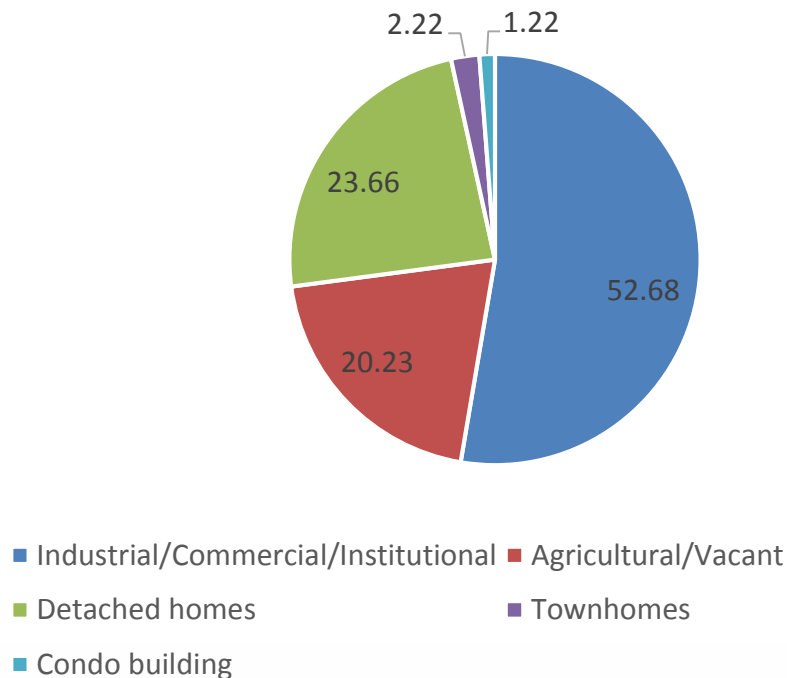
Property Category by Land Area



■ ICI ■ A/V ■ RES L ■ Res M ■ Res H

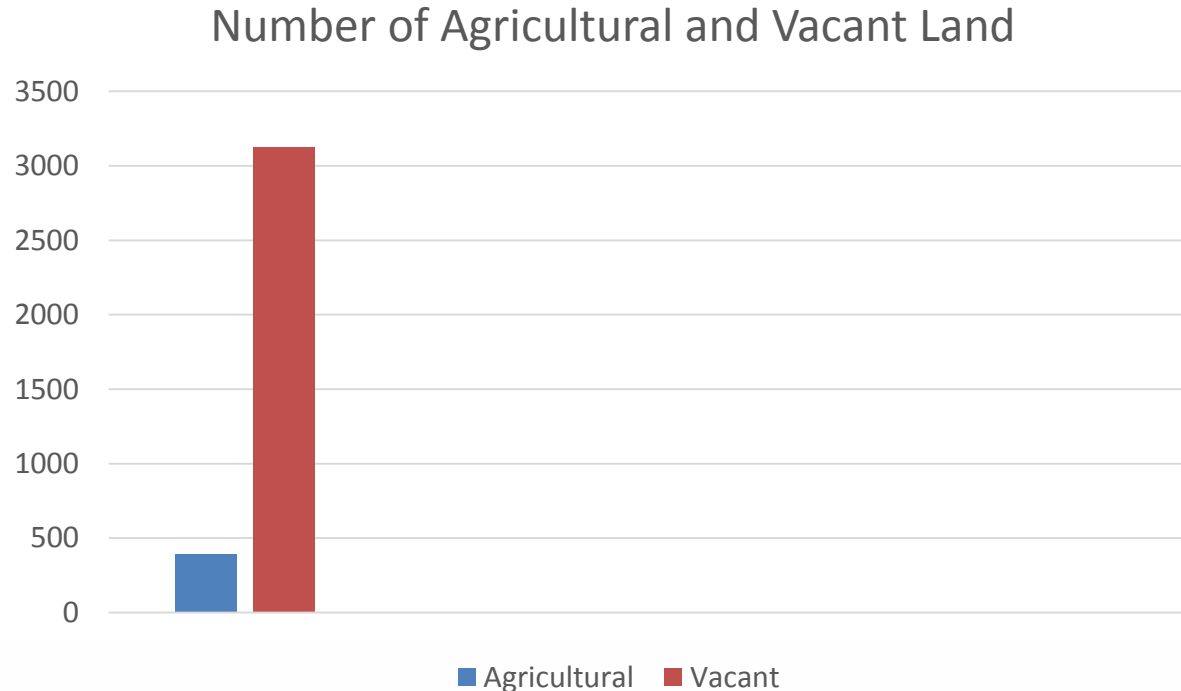
Property Type	Land Area (acres)
Commercial	4,690
Industrial	8,983
Institutional	1,312
Agricultural/Vacant	43,150
Residential (Low)	11,213
Residential (Medium)	859
Residential (High)	472

Property Categories by % hard surface area



The total budget needed for the stormwater program is allocated to each property category's hard surface area


Stormwater Charge Applied to Agricultural/Vacant



Agricultural/
Vacant
Stormwater
Charge
\$694.65

Stormwater Charge Applied to Properties

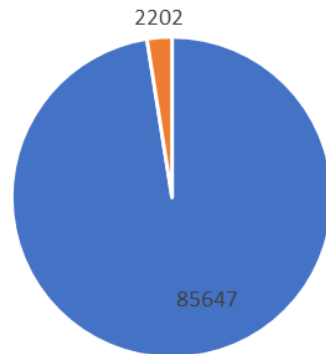
- An example for I/C/I:

I/C/I Property Type	Size	% of Total I/C/I Land Area	% of Properties		Stormwater Charge
I/C/I Small	Less than 1 acre	3%	68%		\$41.28
I/C/I Medium	Between 1 and 10 acres	33%	29%		\$1,066.21
I/C/I Large	More than 10 acres	64%	4%		\$16,740.78
Total		100%	100%		

Stormwater Charge Implementation Feedback

Feedback Received from Implementation of the Stormwater Charge

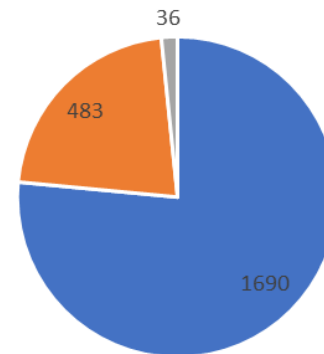
Total Calls Received out of Total Charges Applied



2.57 % of all charges issued required more info

■ Calls Received

Calls Resolution in Tiered System



1.6 % of all calls received requested a review of the charge

■ Tier 1 ■ Tier 2 ■ Tier 3

Feedback from Implementation of the Stormwater Charge (Tier 2)

Percent of total property owners who called	
Residential Property Owners	<1%
Commercial Property Owners	<2%
Agricultural Property Owners	20% (1 in 5)
Vacant Property Owners	3%

Feedback from Implementation of the Stormwater Charge (Tier 3)

Property Type	Number of complaints
Non-residential – large	7
Non-residential – medium	2
Vacant	7
Agricultural	18
Residential – Low	2
Total	36

Questions?

Municipal Comparison – Typical Annual Stormwater Charges

Municipality	Residential (single detached)	Non-Residential (Small <1 acre)	Non-Residential (Large <10 acres)
Aurora	\$60.12	\$763.56	\$763.56
Markham	\$47.00	\$29/\$100,000 of CVA	\$29/\$100,000 of CVA
Richmond Hill	\$62.24	\$180.82	\$180.82
Kitchener	\$149.88	\$766.92	\$14,218.20
Waterloo	\$127.92	\$328.32	\$12,515.76
Mississauga	\$102.00	<\$1,546.01	<\$15,459.91
London	\$184.44	\$184.44	<\$6,140.16
St. Thomas	\$90.72	\$90.72	\$12,568.80

TRCA vs City responsibilities

Activity	City responsibility	TRCA responsibility
Flooding hazards	<ul style="list-style-type: none">• Mitigate impacts to our infrastructure	<ul style="list-style-type: none">• Review municipal policy documents to ensure consistency with S3.1PPS
Stormwater Management	<ul style="list-style-type: none">• Provides approval authority• Manages and maintains all SW assets	<ul style="list-style-type: none">• Provides tech expertise in SW quantity, quality, erosion and water balance
Erosion and Sediment Control	<ul style="list-style-type: none">• Address erosion issues on City owned lands• Opportunity to develop additional initiatives	<ul style="list-style-type: none">• Provides permits for projects in regulated areas• Provides inspections for infrastructure under partnership with various municipalities

Stormwater Charge Applied to Properties

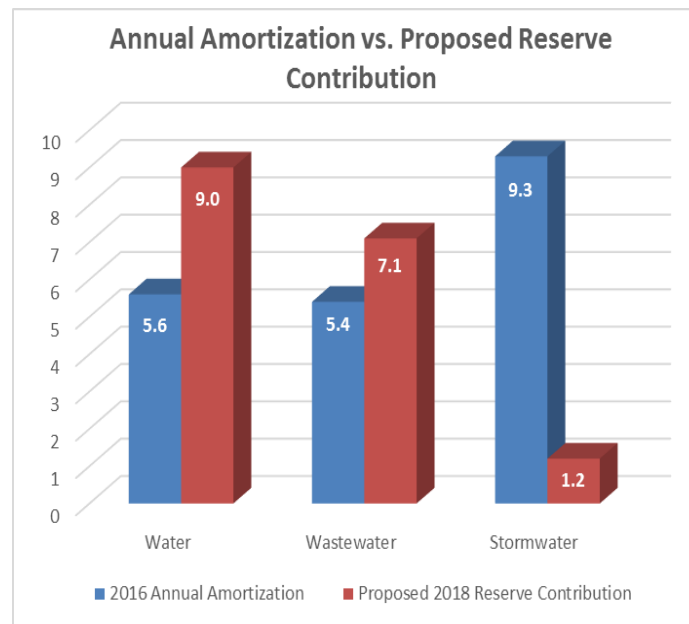
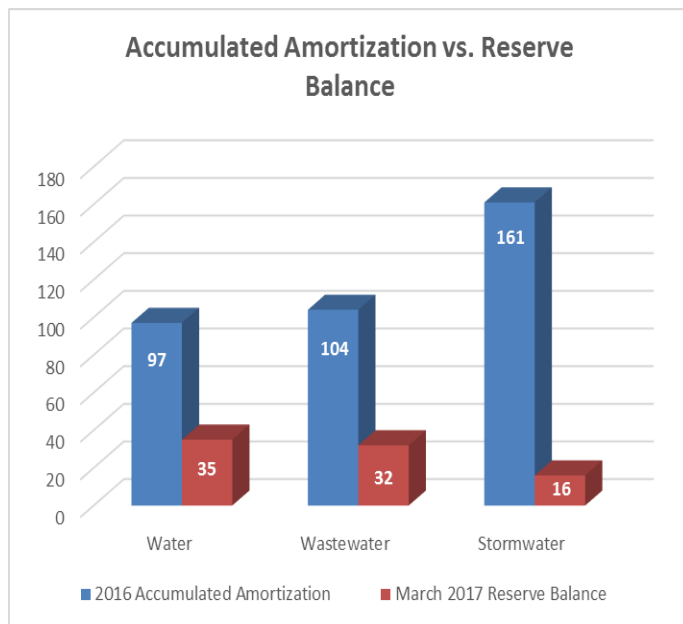
Property Type	# of Units (Tax Roll #s)
Commercial	2,326
Industrial	4,608
Institutional	208
Agricultural/Vacant	4,966
Residential (Low)	67,365
Residential (Med)	10,146
Residential (High)	11,521 (180 condos)

Stormwater Charge Applied to Properties

- The stormwater run-off is applied to the acres to determine theoretical impervious (paved) area

Property Type	Run-off Coefficient	% share of Total Impervious Area
Commercial	0.75	16.49%
Industrial	0.75	31.58%
Institutional	0.75	4.61%
Agricultural/Vacant	0.10	20.23%
Residential (Low)	0.45	23.66%
Residential (Med)	0.55	2.22%
Residential (High)	0.55	1.22%

Rate Setting



Other approaches to Agricultural/Vacant

- Richmond Hill – residential and farm properties charge- \$ 62.24
- Markham- all properties in the non-residential including vacant land charge is \$ 29 per \$100,000 of Current Value Assessment.
- London - residential land area 0.4 ha or less without a stormdrain within 90 m is \$ 11.54/month
 - Land area above 0.4 ha is \$127.92/month per ha