City of Thunder Bay
Stormwater Financing Study

Ward Meeting Presentation
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Stormwater Financing Study – What & Why?

What is it?

- How the City currently pays for stormwater, where the funds comes from, and is it fair?
- What is fairest way to generate increased, sustainable funds for stormwater, while balancing what the community can afford and the ease of implementing changes.
- Recommended plan with steps for implementation for preferred strategy.

Why are we doing this study?

- 2016 Stormwater Management Plan
- 2016 Asset Management Plan

2016 Stormwater Management Plan

– Adopted by Council in 2016, this plan will guide the City's stormwater management actions for the next 20 years, based on the following goals:

- ECOSYSTEM HEALTH
- WATERSHED QUALITY
- WATER QUANTITY
- OPERATIONS and MAINTENANCE
- MONITORING and DATA ASSESSMENT
- REGULATION and ENFORCEMENT
- EDUCATION and OUTREACH
- FUNDING and ORGANIZATION
- CLIMATE CHANGE

Plan Components		Year 1	Year 20 Average Spending
Studies and Inventories			
	Feasibility Studies	$ -	$ 227,400
	Natural Resources Inventories	$ 46,000	$ 129,600
	Stormwater Infrastructure Inventories & Data Collection	$ -	$ 30,600
	Modeling Efforts	$ 100,000	$ 123,000
	Sub-Total	**$ 146,000**	**$ 510,600**
Capital Projects			
	Sub-Total	**$ 4,341,000**	**$ 8,022,800**
Operations and Programs			
	Administration	$ -	*To be determined*
	Monitoring Program	$ 113,000	$ 119,450
	Inspection & Maintenance Program	$ 2,261,000	$ 2,707,800
	Regulations & Enforcement	$ 53,000	$ 88,200
	Public Education, Outreach, and Rebate Programs	$ 181,000	$ 266,600
	Sub-Total	**$ 2,608,000**	**$ 3,182,050**
Lakehead Region Conservation Authority Levy			
	Sub-Total	**$ 1,400,000**	**$ 1,400,000**
	TOTAL	**$ 8,495,000**	**$ 13,115,450**

Stormwater Management Asset Inventory

– What are Thunder Bay's stormwater assets?

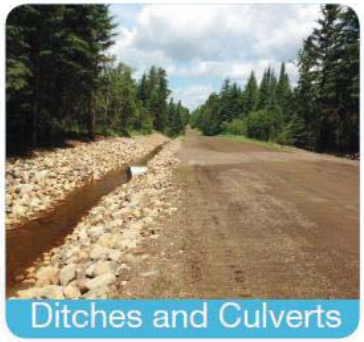

Storm sewers


Catchbasins


Inlets and outlets


Oil-grit separators


Bridges


Ditches and Culverts


Watercourse

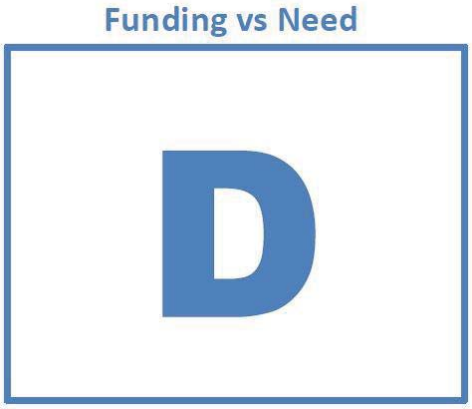

Stormwater treatment facilities, including Green Infrastructure

330km of sewers, 4,200 manholes, 11,000 catch basins, 486km ditches, 45 treatment facilities, 4 pumping station

Report Card

- From the 2016 Asset Management Plan…
  - Average spending from 2011-2015 was $2.9 million annually
  - Capital funding should amount to $6.2 million annually

This equates to a **$3.3 million annual funding gap and grade of D**.

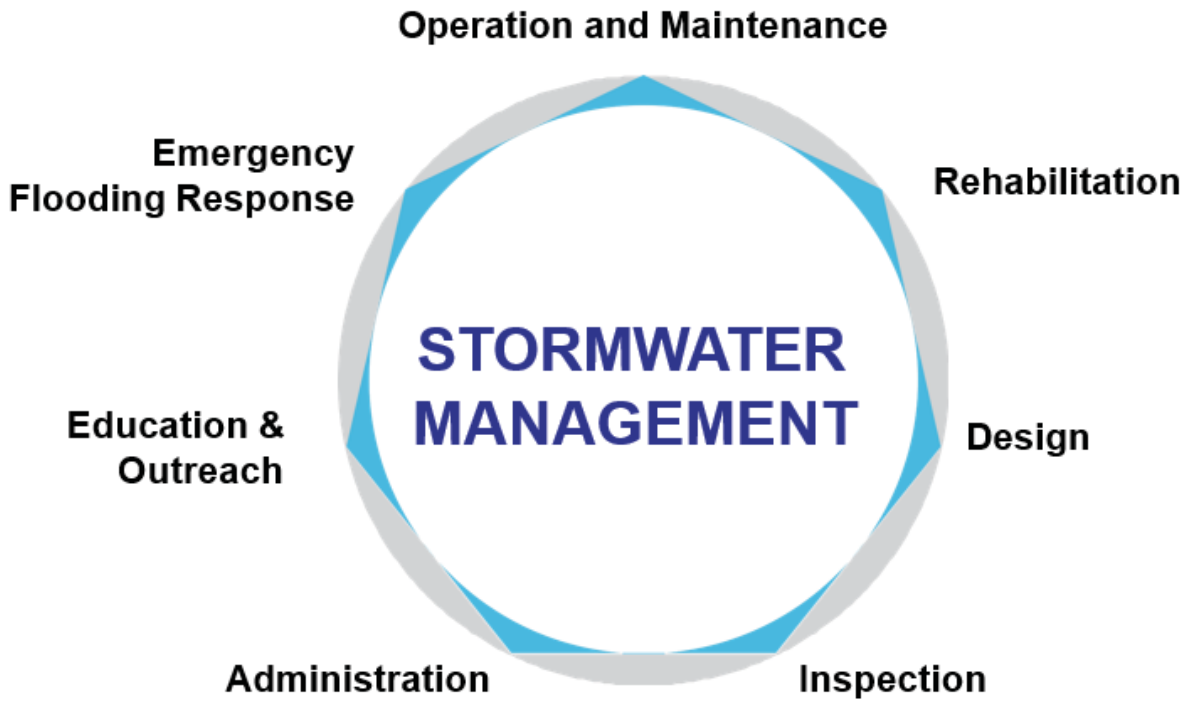


Note: Does not include:

- all current assets, such as ditches, culverts, and treatment facilities
- the construction of new, or larger, infrastructure and treatment facilities

What is Thunder Bay Currently Doing?

– The City is responsible for protecting public health & safety as well as the environment by managing the quality and quantity of stormwater reaching our lakes and rivers



Capital Projects

Operations and Maintenance

Repair

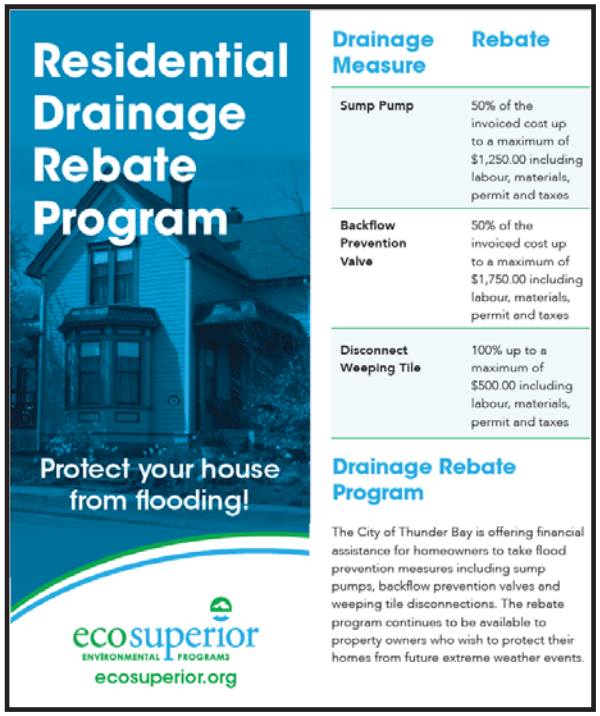
Street Sweeping

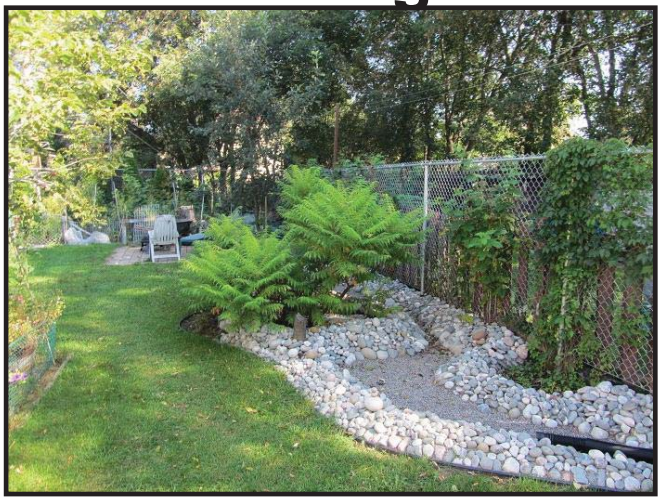
Ditch Cleaning

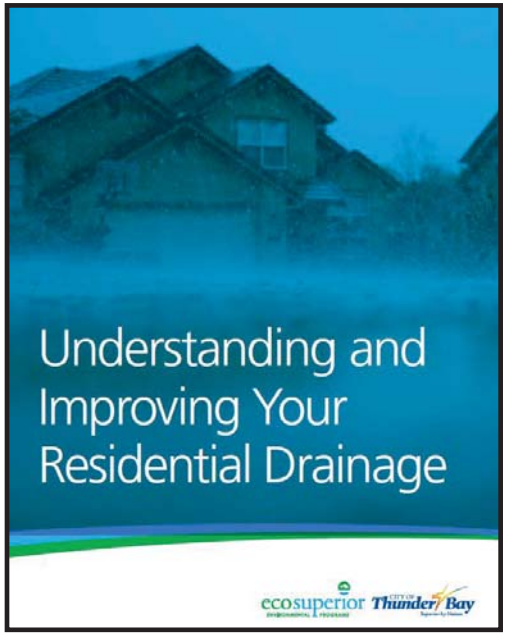
Catch Basin Cleaning

Floodway Dredging

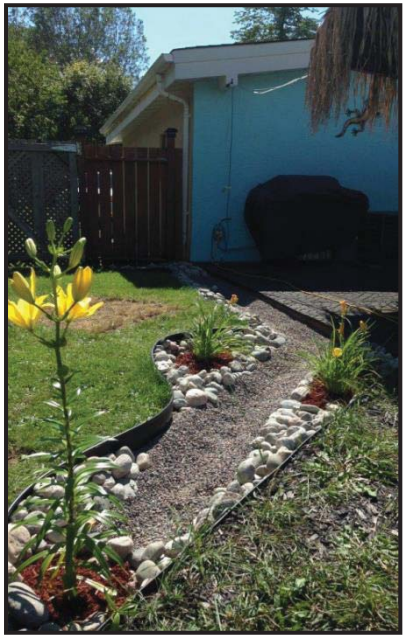
Assistance & Rebate Programs







- Residential Drainage Program
- Rain Garden Rebate
- Rain Barrel Rebate
- Residential Drainage Guide



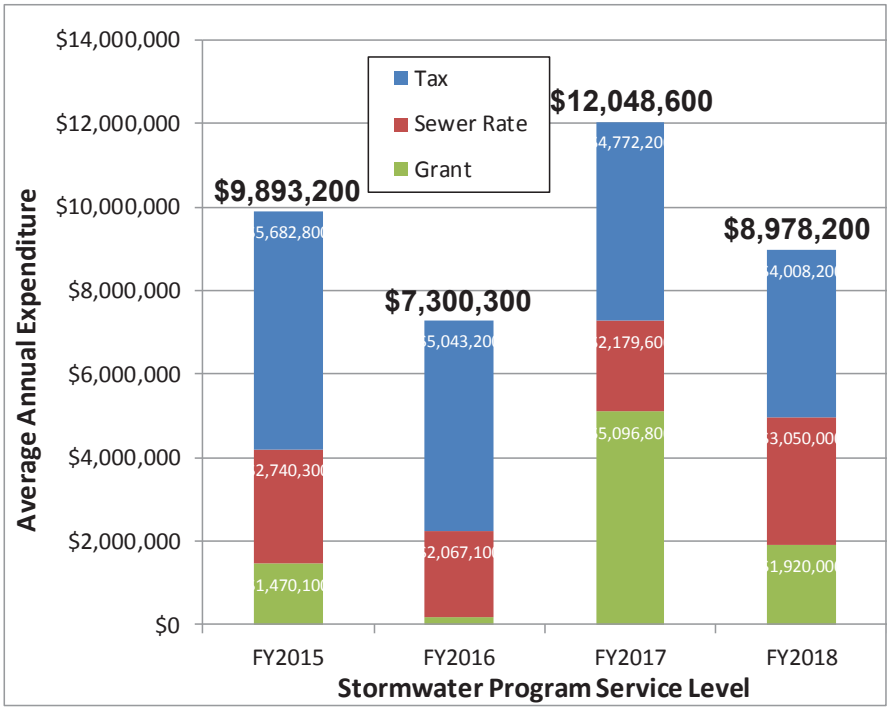
Stormwater Financing Study Overview

1. Evaluate current expenditures & funding sources
2. Determine the appropriate and affordable level of service for future stormwater program projects and activities
3. Identify and evaluate funding options and alternatives
4. Solicit feedback from a Stormwater Advisory Committee as well as residents and business owners
5. Recommend a preferred option and determine the impacts / differences compared to current funding sources
6. Present project findings and study recommendations to Council later this year

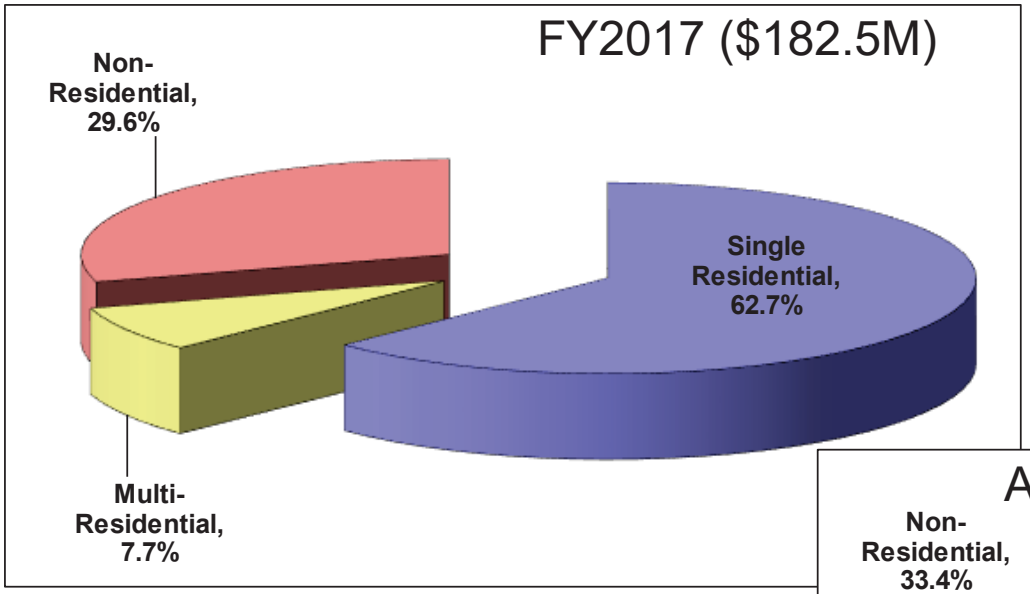
Current Stormwater Program Expenditures

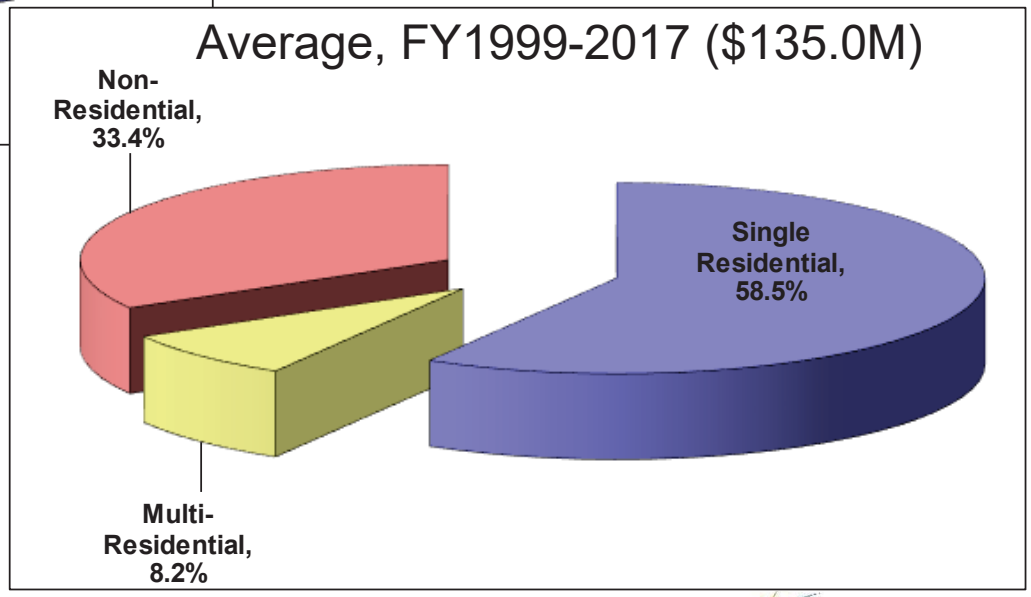
– Annual stormwater program costs (FY2018 budget): $9.0M
- Tax funded portion: $4.0M
- Rate funded portion: $3.1M
- Grant funded portion: $1.9M

Stormwater Management Program Item	Current Funding Source	Annual Expenditure	
		Tax Funded	All Sources
Operations & Maintenance			
Street Cleaning	Tax	$762,300	$762,300
Drainage & Flood Control	Tax	$685,900	$685,900
Catchbasins	Sewer Rate	$0	$443,300
Pump Stations	Sewer Rate	$0	$36,100
Storm Sewers	Sewer Rate	$0	$360,600
2016 SMP (20-year average)	n/a	n/a	n/a
Subtotal		**$1,448,200**	**$2,288,200**
Capital Improvements			
Storm Sewer Separation	Sewer Rate + Grant	$0	$2,210,000
Stormwater Mgmt. Projects	Tax + Grant	$1,060,000	$2,980,000
Culvert Replacement	Tax	$100,000	$100,000
2016 SMP (20-year average)	n/a	n/a	n/a
Subtotal		**$1,160,000**	**$5,290,000**
Other			
Lakehead Region CA Levy	Tax	$1,400,000	$1,400,000
Indirect Overhead	Tax	??	??
Subtotal		**$1,400,000**	**$1,400,000**
TOTAL		**$4,008,200**	**$8,978,200**



Tax Levy Distribution





Property Tax Funding

	Pros	Cons
Tax-Based Funding	• Already accepted as the primary existing source of revenue for municipalities • Can be used to fund all stormwater management program activities • The billing system is already established	• Property taxes are based on a property's assessed value, not runoff contribution, so the fairness and equity of this revenue source is low • Not a dedicated* or stable funding source • Annual competition for general tax funds to support other community services • No incentive to adopt source controls to reduce runoff • Tax-exempt properties don't contribute to stormwater program

**Note: A dedicated tax levy for specific stormwater services could be adopted*

Development Charges

- Ontario Development Charges (DC) Act of 1997 authorizes municipalities to pass by-laws to recover costs incurred related to new and re-development projects
- Only used to fund eligible growth-related capital costs, and only for the services for which they were collected
- Often based on the number of residential dwelling units or the building floor area for non-residential developments
- City has enacted a DC by-law, but it has not been implemented yet

Stormwater User Fee (Utility)

– Progression of public utilities once funded from general tax support and then shifted to enterprise fund
  - Water – Volume used
  - Wastewater – Volume generated
  - Solid Waste – Quantity generated
  - Stormwater – Runoff contribution

– Variable rate with charge based on total impervious area (hard surfaces):
  - Rooftops
  - Driveways
  - Parking areas
  - Patios
  - Sidewalks

Stormwater User Fee (continued)

- Typical range in Ontario is $4-15 per month for average homeowner
- Wide variety in service levels and portion of program that is rate financed
- Flat fee: equal charge to all utility customers (Calgary)
- Tiered flat fee: charges by customer type (London, Aurora, Richmond Hill)
- Variable rate: property owners based on measured impervious area (Kitchener, Mississauga, and Guelph)

Municipality	Fee Type (as of 2016)	Start
Nova Scotia		
Halifax	Variable Rate	2013
Ontario		
London	Tiered Flat Fee	1996
Aurora	Tiered Flat Fee	1998
St. Thomas	Tiered Flat Fee	2000
Kitchener	Variable Rate	2011
Waterloo	Variable Rate	2011
Richmond Hill	Tiered Flat Fee	2013
Markham	Tiered Flat Fee	2015
Mississauga	Variable Rate	2016
Saskatchewan		
Regina	Tiered Flat Fee	2001
Saskatoon	Variable Rate	2012
Alberta		
Calgary	Flat Fee	1994
Edmonton	Variable Rate	2003
St. Albert	Tiered Flat Fee	2003
Strathcona County	Flat Fee	2007
British Columbia		
Pitt Meadows	Tiered Flat Fee	2009
Richmond	Tiered Flat Fee	n/a
West Vancouver	Tiered Flat Fee	n/a
Surrey	Tiered Flat Fee/ Parcel Tax	n/a
White Rock	Tiered Flat Fee/ Parcel Tax	n/a
Langley Township	Parcel Tax	n/a
Victoria	Variable Rate	2016

Stormwater User Fee Funding

	Pros	Cons
User-Fee Funding (e.g., Stormwater Rate based on impervious area)	• Dedicated and stable funding source for all stormwater activities (i.e., sustainable) • Fair and equitable fee based on indicator of runoff contribution (assessed to all private and publicly-owned properties in the same manner) • With a credit program, provides an incentive for property owners to reduce stormwater runoff and pollutant discharge • Mechanism to ensure privately owned stormwater facilities are maintained	• Additional implementation costs (rate study, database management, billing and customer service*) • Possibility that a new fee may not be well received by the public *Note: Potential to administer stormwater rate through other existing billing systems (e.g., hydro, water/ sewer, etc.).

Evaluation Criteria for Preferred Option

- Applicability of funding method citywide
- Eligibility to support capital improvement projects, operations & maintenance activities
- Eligibility to offset costs for engineering, support, and overall administration of the stormwater program
- Fair and equitable charges to the property owners
- Long-term funding source dedicated solely to stormwater program expenditures
- Level of effort to administrate and staffing/resource requirements
- Environmental benefits including opportunities for rebates and incentives to reduce stormwater and pollutant loads

Next Steps

- Collect input on the key questions and factor all ideas into the evaluation of the different funding options
- Continue parcel analysis (impervious area measurements)
- Continue to communicate via the City website www.thunderbay.ca/stormwaterplan
- Upcoming Meetings (dates to be determined)
  - Stormwater Advisory Committee Meeting 2 and 3
  - Public Information Centre No. 2
  - Ward Meetings
  - Council Presentation(s)
  - Additional as required

Questions?







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