

# Braintree's Stormwater Program

*April 30, 2018*

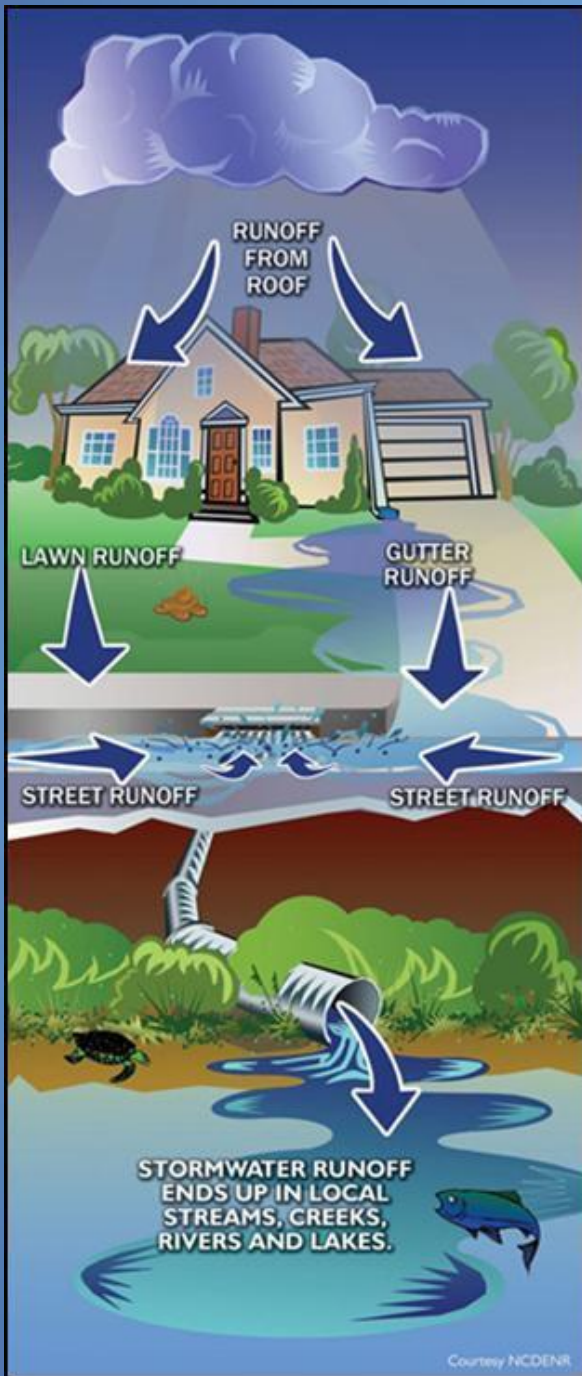


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# What is stormwater ?





- After it rains or snows, the water runs down the street
- As the water is running down to the storm drain, it collects any pollutants it comes across and carries straight into the storm drain
- The storm drains collect the water, and send it through pipes
- The pipes outlet at the nearest wetland or water body without any treatment
- This pollutes the natural habitats for various species

# Old Approach:

- General Maintenance and Cleaning
- Culvert Repairs as needed
- Minimal Treatment
- Meet the min. requirements of the 2003 MS4-Stormwater Program

# New possible water treatments

## Biotreatment Areas

Aesthetically pleasing and good for the environment



# New Approach Benefits:

- Improve Public Health and Safety
  - Cleaner water
  - Less flooding
  - Safer roads
  - Improve access to local businesses
  - More aesthetically pleasing
  - Less beach closures
  - Make water swimmable/fishable
  - Improve the habitat of our local wildlife
- Meet all the requirements of the Clean Water Act- 2016 MS4-Stormwater Program

We all can agree that the **NEW**  
approach is the way to go...

***How do we achieve that?***

- Create a Stormwater Master Plan
  - Plan will evaluate Braintree's current drainage
  - Outline what we need to improve
  - Steps we need to take to improve it
  - Cost estimates for the improvements
- Implement a Stormwater Master Plan
- Maintain what we've built so it continues to function at it's best

# How did we get to this new approach?

- Environmental regulations are changing
  - EPA Stormwater Program (Per Federal Clean Water Act)
  - Massachusetts DEP Stormwater Standards
  - Wetlands Protection Act
- Stricter requirements
- Fines for not complying with EPA Stormwater Program



# 2016 Permit

- 2016 – EPA and MassDEP co-signed the Final Permit in April 2016 and it will become effective **July 1, 2018.**
  - To become authorized to discharge stormwater, a Notice of Intent (NOI) must be submitted before September 29, 2018.
  - The Notice of Intent outlines all the tasks that the municipality agrees to perform.
  - To become authorized, a municipality must meet all the requirements.
  - 5 Year Permit, but requirements are outlined for 10 years

# 2016 Massachusetts MS4 General Permit

## **Six minimum control measures**

- Public education
- Public involvement
- Illicit discharge detection & elimination
- Construction site runoff
- Post-construction stormwater management
- Pollution prevention for municipal operations

## Other Actions needed:

- Fully map the stormwater system with catchments
- Perform outfall screening/testing
- Retrofit sites with stormwater improvements
- Increase street sweeping program
- Clean all catch basins once they are over 50% full
- Report on all retrofits by tracking impairments.
- Increased site inspection
- Inspection/inventory of private stormwater systems
- Site Plan Review to include impairment removal
- Stricter stormwater ordinances at the local level

# Braintree has:

- 261 Outfalls
- 3,887 Catch Basins
- 98 miles of Town drain pipe
- 158 culverts in public ways (est.)
- 2,135 Drain Manholes
- 398 Headwalls (81 at outfalls)
- 30 Detention Basins (est.)
- 8 Infiltration Systems (est.)
- And the majority are aging

# List of Impaired Waters in Braintree

- Cochato River
- Monatiquot River
- Town Brook
- Weymouth Fore River

# How changes affect Braintree?

- Lack necessary time and materials
- Lack exclusive funding mechanism
- Lack drainage master plan
- Need more robust GIS system
- Need additional staff

# Proposed Stormwater Utility Fee

- Single Family & up to 3 Family properties

Year 1 - \$6.25/ Quarter or \$25/ Year on Water/Sewer bill.

- 4+ Family, Commercial, Industrial & Tax Exempt

Same as above but per ERU (Equivalent Residential Unit) which is multiplied per 2,780 SF of impervious surface on the parcel.

Example: Property has one acre of roof, driveway and parking area that are all impervious to water infiltrating into the ground.

Year 1 the cost would be  $43,560 / 2,780$  or 15.67 ERU's. This would then be multiplied by \$6.25/ Quarter or \$25/ Year at a total cost of \$97.94/ Quarter or \$391.75/ Year.

# Local Stormwater Utility Fee

Municipality	Annual Residential Rate
Fall River	\$140
Newton	\$75
Northampton	\$63.94
Milton	\$32 - \$468

**\$25/year can go a long way**



# Benefits of a Stormwater Utility

- Meet the terms of the New MS4 Permit
- Improve the quality of our waters
  - Swimmable, drinkable, fishable
- Long range planning of drainage projects
  - Cost-effective by prioritizing
- Provide regular drainage maintenance to instill a **proactive** approach, rather than **reactive**
- Avoid costly Emergency repairs by staying ahead of the crisis.



*Comments or Questions*