



Comprehensive Stormwater Management Master Plan Update Public Information Centre

Date: August 19 - September 18, 2026
Location: virtual presentation

Project Overview

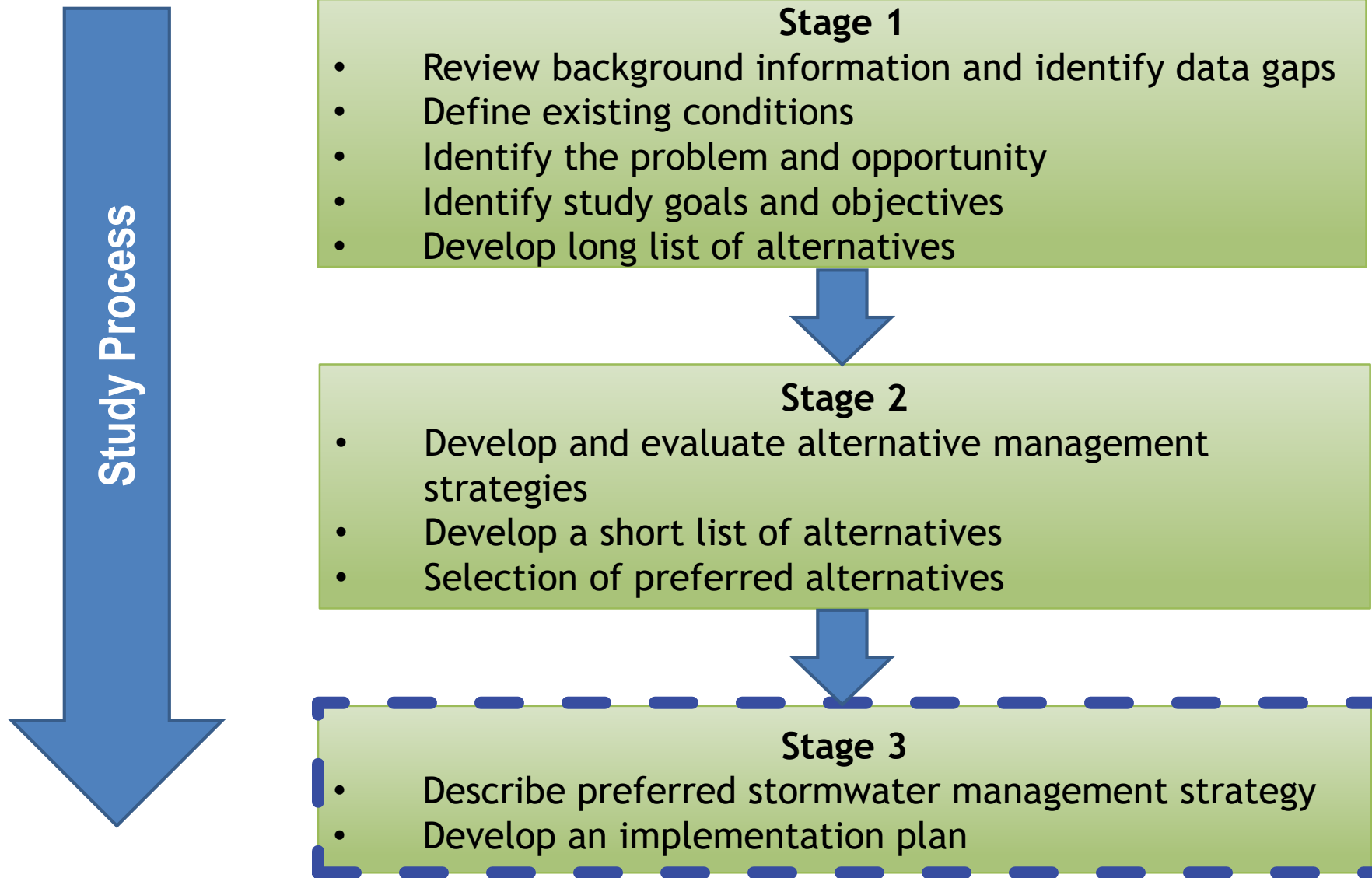
- ▶ What is stormwater?
 - ▶ Water from storms, including heavy rain and meltwater from hail and snow.
- ▶ What impacts does it have on the environment and communities?
 - ▶ Stormwater carries pollutants that can harm aquatic life, fish and wildlife habitats, and reduce aesthetic value.
 - ▶ Stormwater can also cause flooding.
- ▶ What deficits exist or areas needed for improvement?
 - ▶ Many parts of the City were developed before modern stormwater regulations were in place.
 - ▶ Stormwater in these areas is not treated before it is released to a stream or lake.
 - ▶ These uncontrolled flows can cause flooding and erosion, and negatively impact aquatic habitat.

Project Overview

- ▶ This project is completed following the Municipal Class Environmental Assessment process.
- ▶ This study follows the requirements for master plans under Approach #1. This approach identifies any Schedule B or C projects for future studies.
- ▶ The MCEA helps plan municipal infrastructure while protecting the environment.



Project Overview



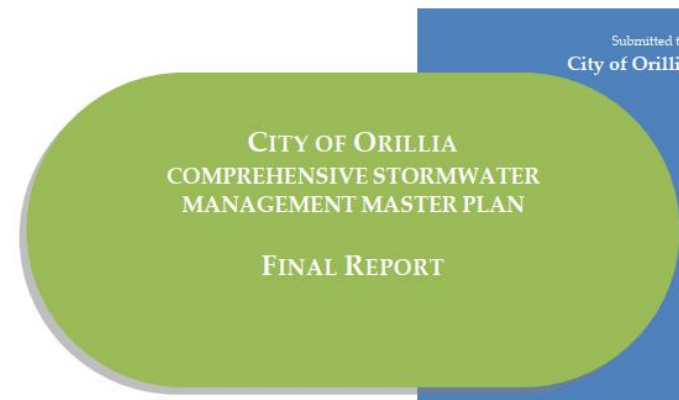
Study Goal

- ▶ Develop a City-wide stormwater management approach to:
 - ▶ Improve water quality
 - ▶ Reduce urban flooding
 - ▶ Improve erosion control
 - ▶ Mimic the natural water cycle
 - ▶ Preserve and enhance the natural environment
- ▶ Comply with the Lake Simcoe Protection Plan, by reducing phosphorus loading to Lake Simcoe and its tributaries

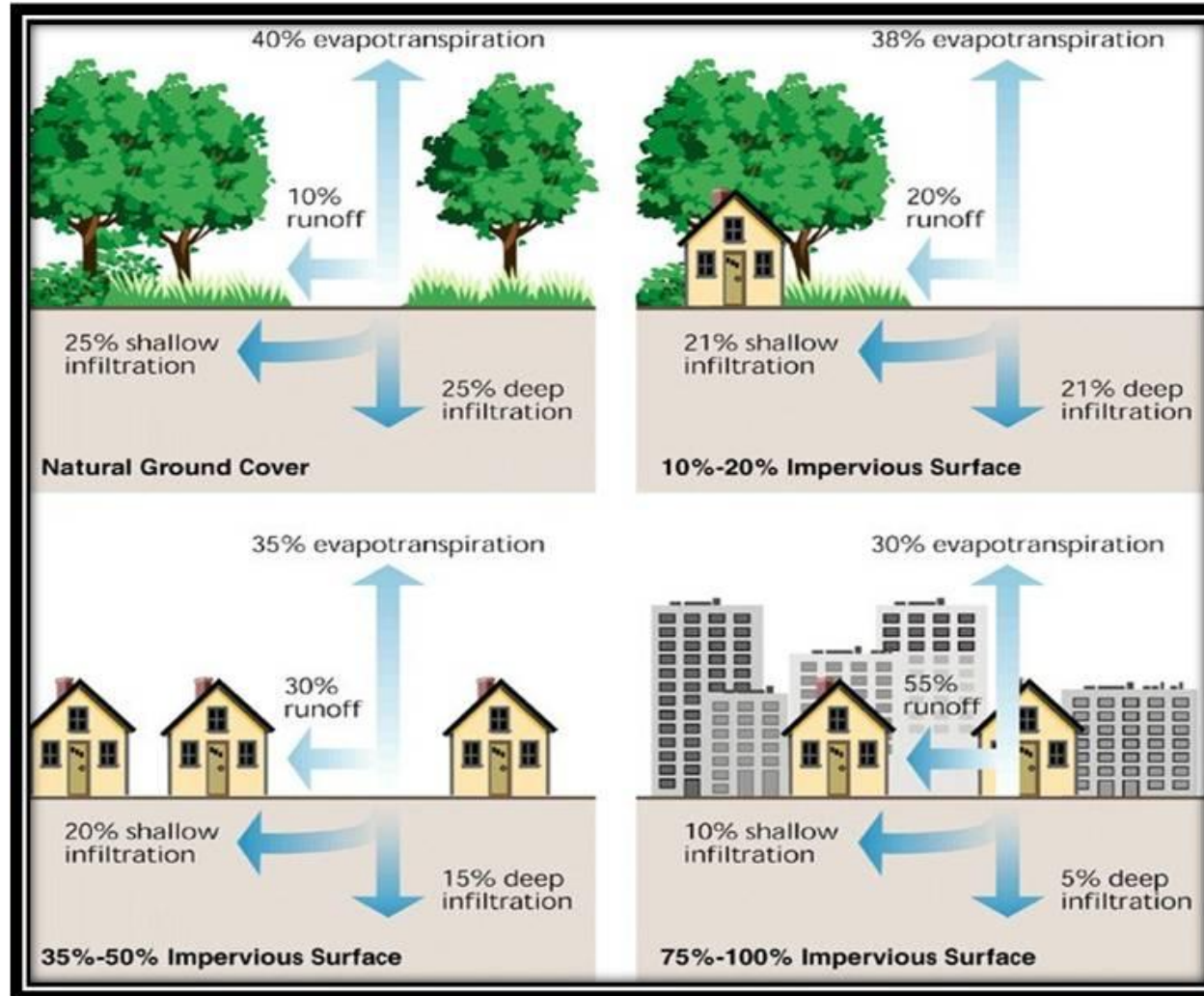


Project Need

- ▶ The last Comprehensive Stormwater Management Master Plan was completed in 2016. Updates are now needed because:
 - ▶ Lake Simcoe Protection Plan compliance
 - ▶ Accounting for new policies



Impact of Development on Stormwater

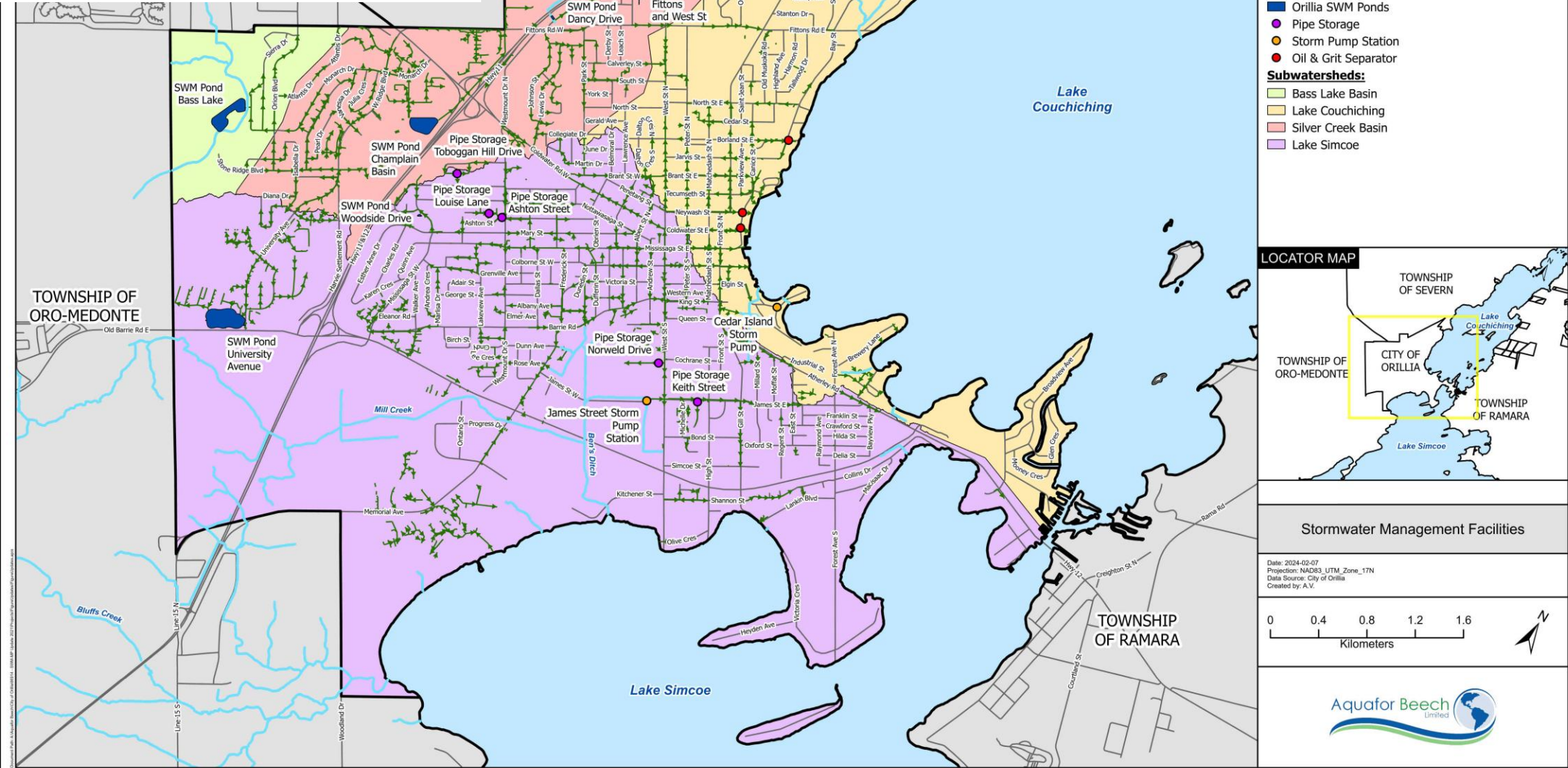


Stormwater Management Facilities

- ▶ **Stormwater management ponds** collect and store stormwater, slowing its flow to creeks and rivers.
- ▶ **Low Impact Development (LID)** is a design practice that mimics natural water cycles by enabling water to infiltrate into the soil, where it can be filtered by soil and/or absorbed by plants.
- ▶ **Oil and Grit Separators (OGS)** are underground devices that are attached to storm sewer pipes. They remove sediment, screen debris, and separate floatables like oil and grease.

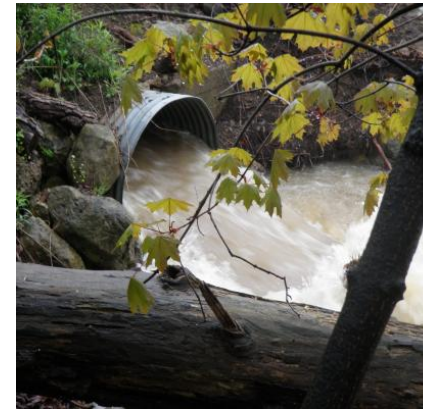
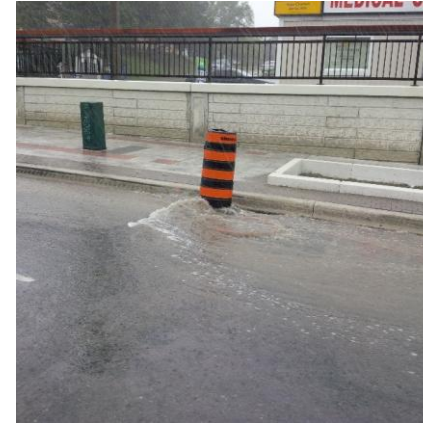


Subwatersheds and Existing Stormwater Management Facilities



Outline of Study Recommendations

- ▶ Recommendations divided into 5 categories:
 - ▶ Pollution Control and Municipal Operations and Maintenance
 - ▶ Source Controls
 - ▶ Conveyance Controls
 - ▶ Urban Flood Management and Storm Conveyance
 - ▶ End of Pipe Controls



Recommendations: Pollution Control and Municipal Operations and Maintenance

- ▶ Reduced road salt, where possible
- ▶ Street Sweeping
- ▶ Catch Basin Cleaning
- ▶ OGS Cleaning
- ▶ Storm Outfall Cleaning

Recommendations: Source Controls

- ▶ The recommended approach includes:
 - ▶ Private property retrofits; and
 - ▶ Development of a LID Policy, an approvals process, a tracking system, and a process for providing oversight of private property LID best management practices



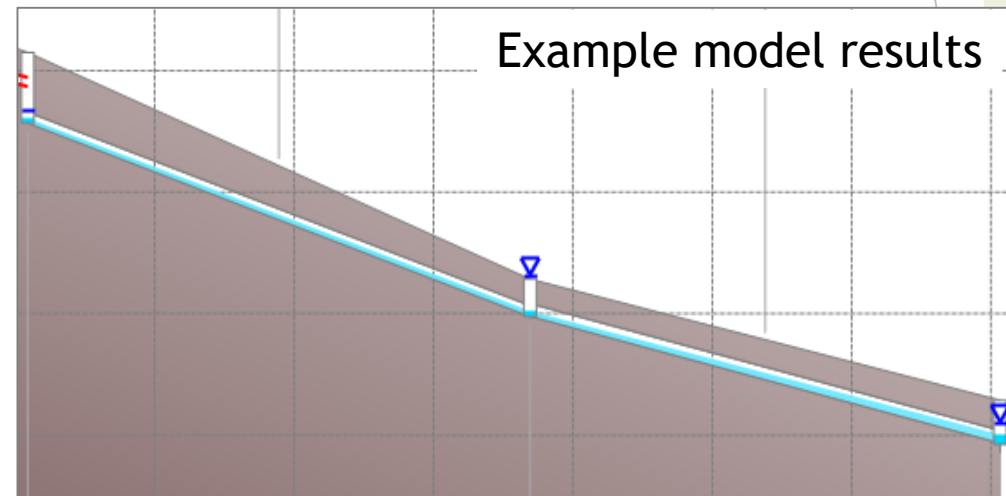
Recommendations: Conveyance Controls

- ▶ The recommended approach includes:
 - ▶ Development of a LID in the ROW Program;
 - ▶ Retrofit of existing ditches; and
 - ▶ Development of LID policy and processes relating to City-owned conveyance controls.



Recommendations: Urban Flood Management and Storm Conveyance

- ▶ The recommended approach includes:
 - ▶ Calibrating the City's stormwater computer model
 - ▶ Upgrading storm sewers and ditches as part of road reconstruction works
 - ▶ Completing ongoing ditch maintenance
 - ▶ Investigate the City's outfalls, and acquire easements where required
 - ▶ Continue to inspect and maintain storm sewers and pump stations
 - ▶ Mitigation of minor drainage issues



Recommendations: End-of-Pipe Controls

- ▶ The recommended approach for stormwater ponds and OGS units includes:
 - ▶ Operations and maintenance of existing ponds and OGS units
 - ▶ Retrofits of existing stormwater ponds
 - ▶ Implementation of new end-of-pipe stormwater controls



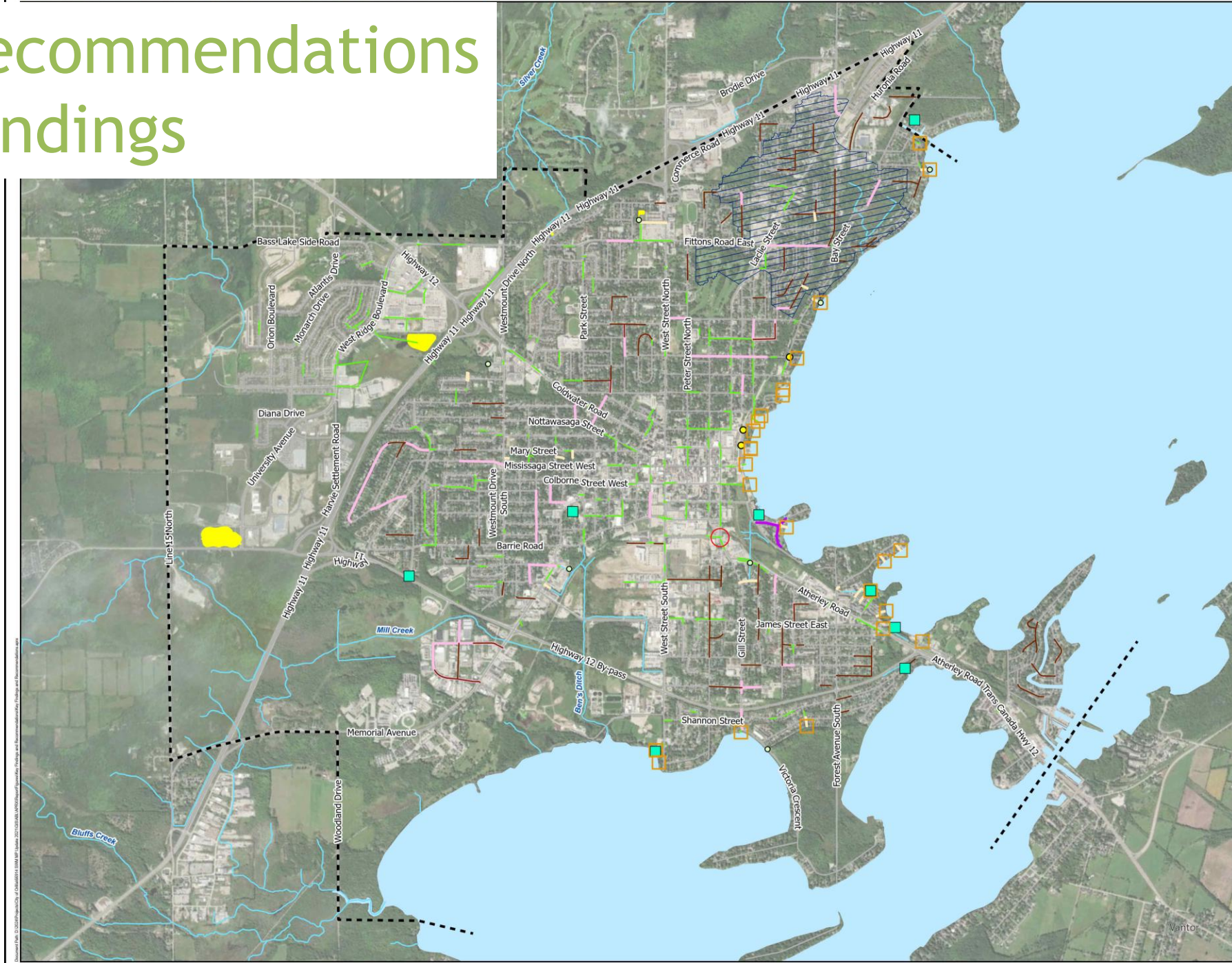
Additional Recommendations

- ▶ Implement findings from:
 - ▶ Cedar Island Schedule B Environmental Assessment to reduce urban flooding on Cedar Island Road and Davey Drive
 - ▶ Sundial Creek Class Environmental Assessment to improve stormwater management to help protect and restore a healthy Brook Trout population
- ▶ Develop and implement a monitoring plan to comply with provincial guidelines



Brook Trout

Key Recommendations and Findings



- Legend**
- Waterbody
 - City Limits
 - Orillia Roads
 - Watercourse
- Key Findings & Recommendations:**
- New OGS Units
 - OGS Unit Maintenance
 - Drainage Mitigation Projects
 - Outfall Cleanouts
 - New Stormwater Management Facilities
 - Storm Sewer Upgrades
 - Ditch LID Retrofits
 - Ditch Upgrades
 - Cedar Island Preferred Alternative
 - Easement Acquisition
 - Sundial Creek Preferred Alternative
 - SWMF - Sediment Removal and Maintenance

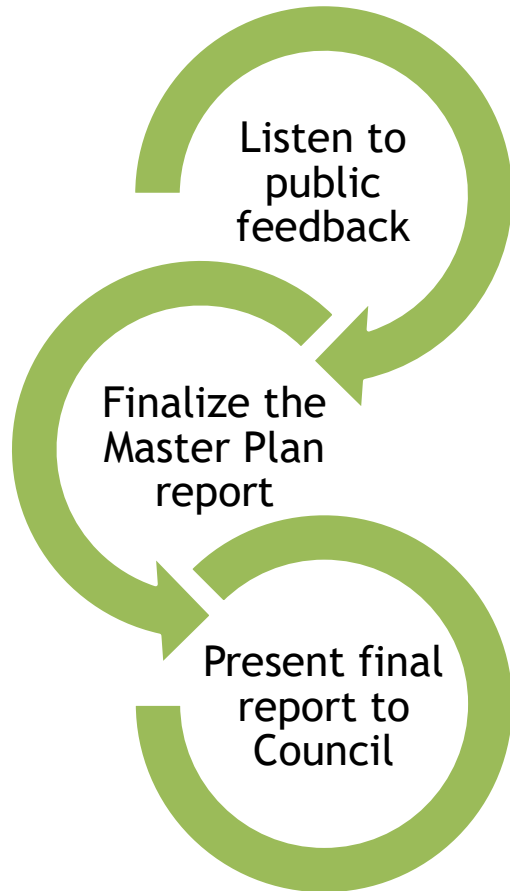
Key Findings & Recommendations

Date: 2020-03-17
Projection: NAD83, UTM, Zone_17N
Data Source: City of Orillia
Created by: J.R.

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Next Steps



Implementation of the Comprehensive Stormwater Management Master Plan recommendations will begin in 2027!



Thank-you

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