

Case Study 1

Town of Oakville

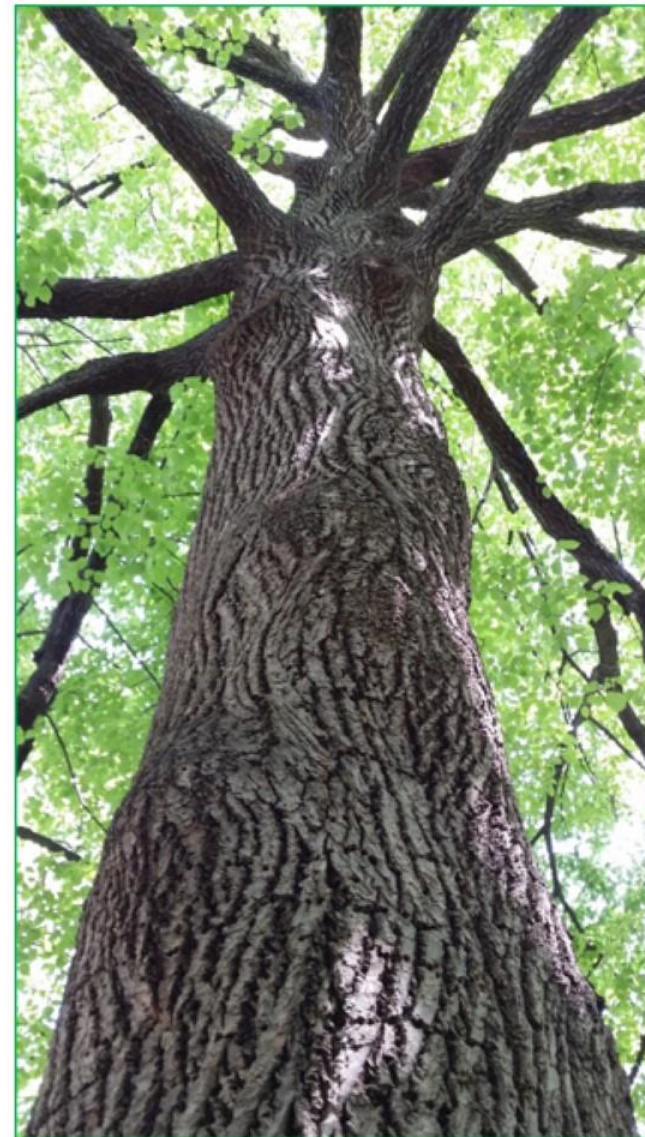
Municipal Natural Asset Initiative (MNAI)

Urban Forest Asset Management Workshop

Thursday, October 5, 2017

Green Infrastructure Ontario Coalition

Cindy Toth, H.B.Sc., Dip. EST (IHE)
Director, Environmental Policy
Town of Oakville



Town of Oakville

- Pop: 193,832 (2016)
- Area: 139 km²
- Growing



**SCHEDULE A1
URBAN STRUCTURE**

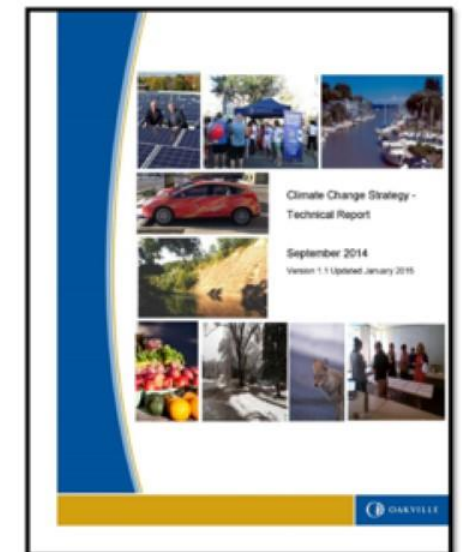
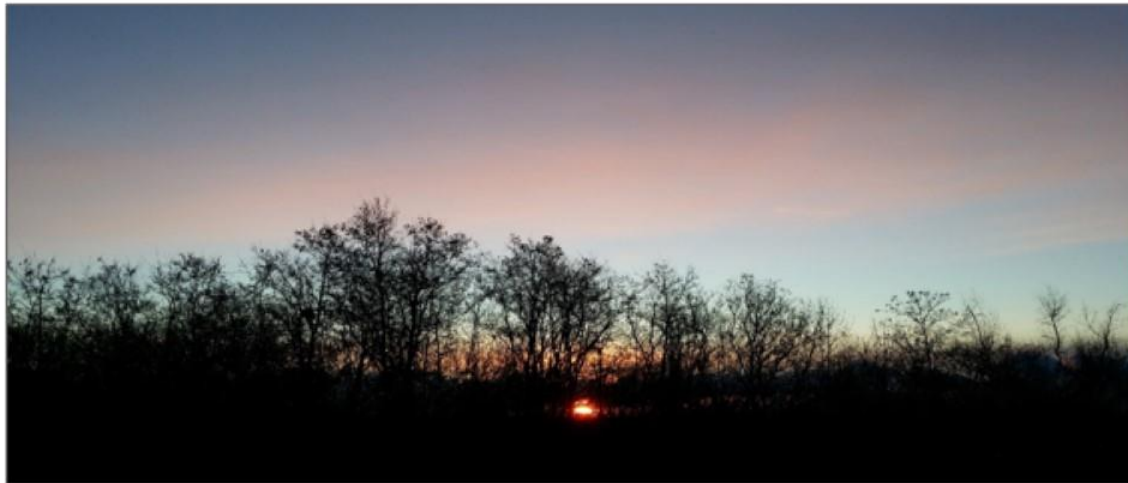
- RESIDENTIAL AREAS
- EMPLOYMENT AREAS
- MAJOR COMMERCIAL AREAS
- GROWTH AREAS
- RAILROAD BELT
- GREENBELT
- LANDS NOT SUBJECT TO THE POLICIES OF THIS PLAN
- RAILWAY LINE
- MAJOR TRANSIT STATION

NOTE: THE GREENBELT IS NOT SUBJECT TO THE POLICIES OF THIS PLAN.

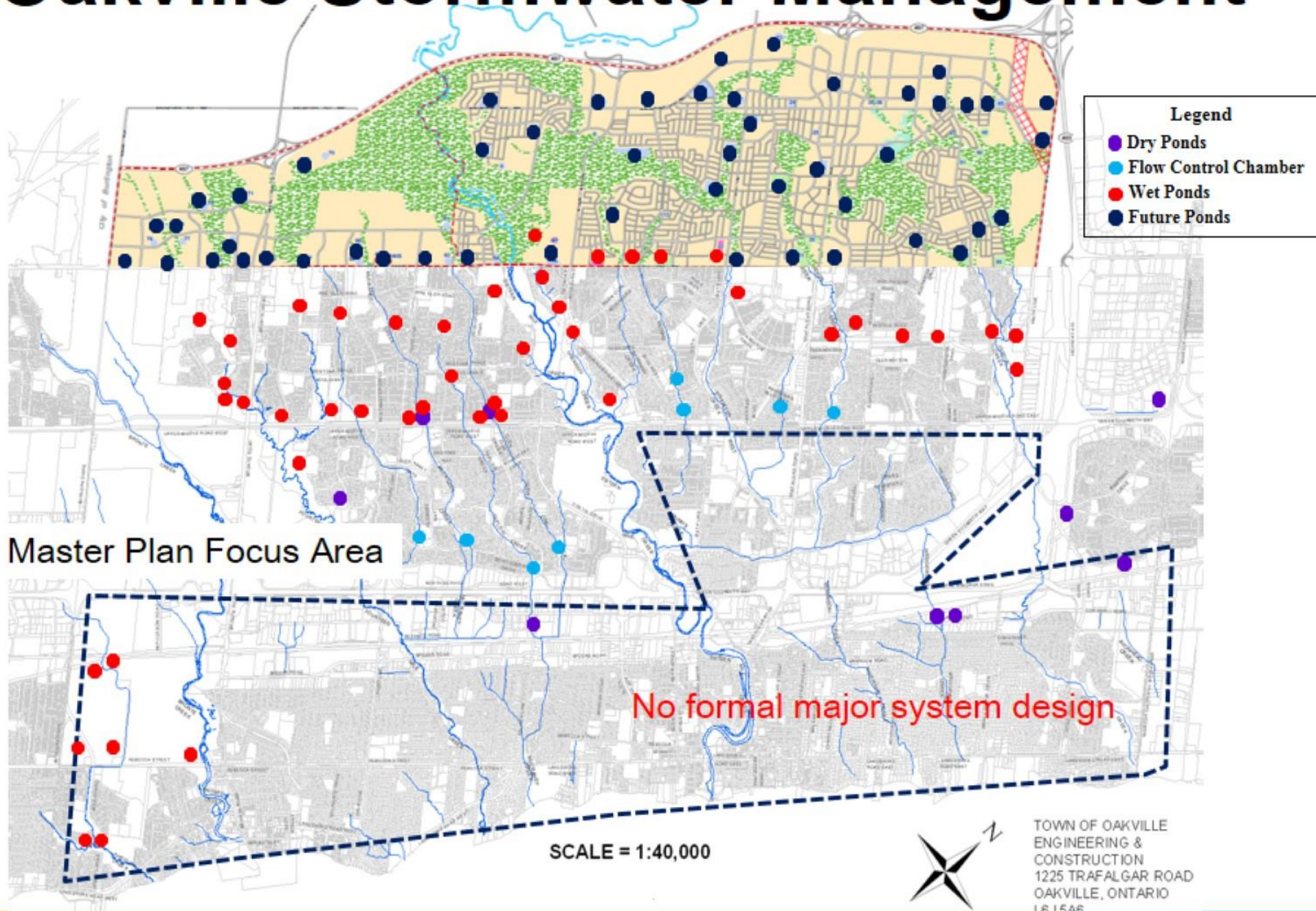
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April 4, 2017

Issues Facing Oakville

- Impact of growth
- Climate change
- Vulnerabilities: urban forest and stormwater



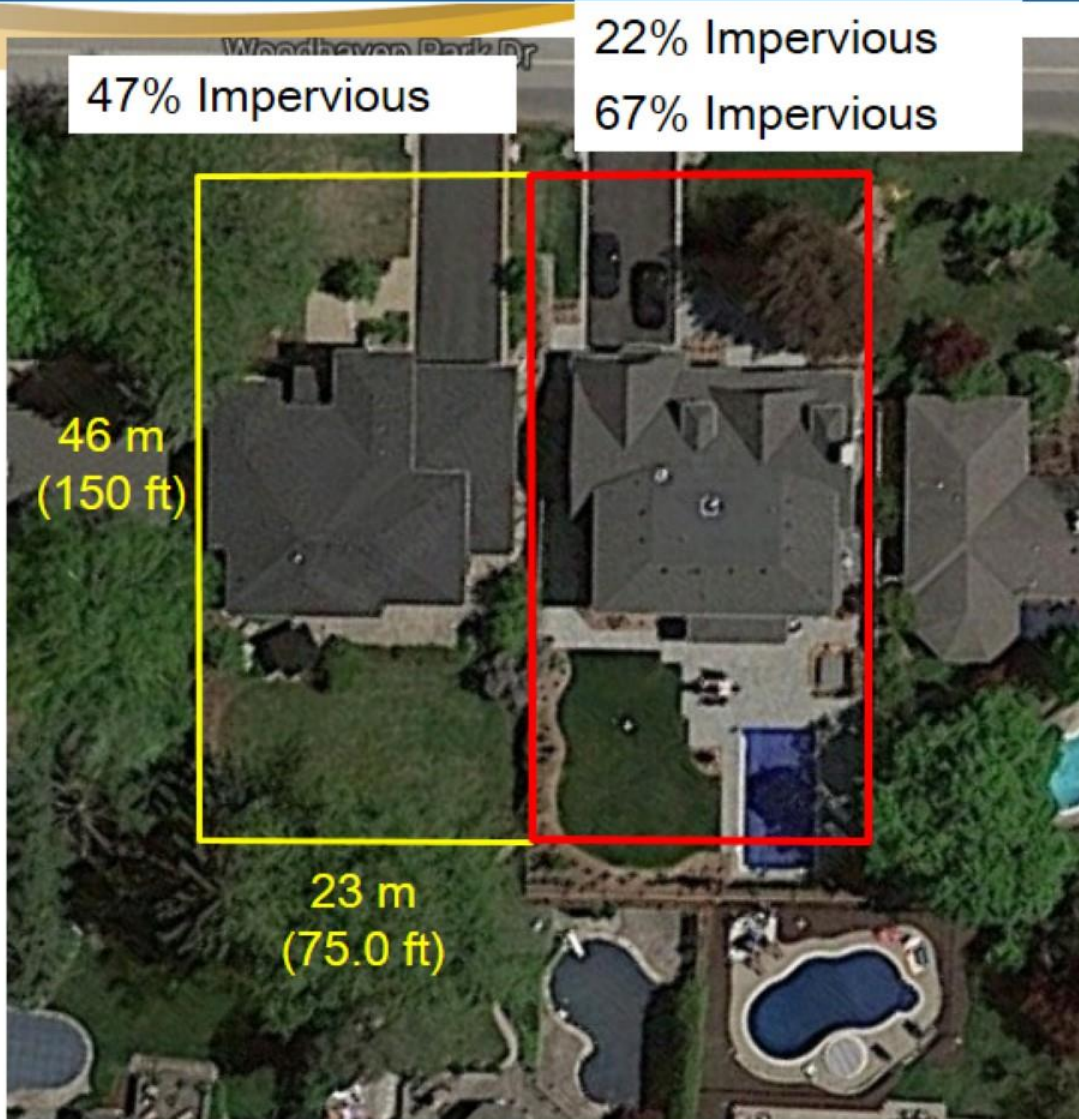
Oakville Stormwater Management



SW Master Plan Phase 2

- Analyse using a model for both minor (sewer) and major (overland) systems
- Identify vulnerabilities
 - Low points in road, public flow through private lands
- Develop needs assessment
- Prepare implementation plan





Coronation Park Subdivision



Davis Minardi Subdivision

Town of Oakville MNAI Pilot

- FCM Sustainable Cities Conference in Feb. 2016 piqued interest of staff and Mayor
- CAO convened meeting of staff involved in asset management and stormwater management
- Project:
 - Focus on stormwater natural assets in older area of town with mounting pressures due to monster home development linked with ongoing Stormwater Management Master Plan Phase 2
 - Looking for potential mechanisms to account for loss of ‘private side’ natural assets when buildings cover more of a lot with subsequent conveyance of more runoff to the public realm
 - Specific consideration of remnant watercourse features in private control to better understand their function and value of provided municipal service

Process:

Getting Started

Assess State
of Natural
Assets

Run and
Interpret Model

Natural Capital
Asset
Management
Planning

Implementation

**August –
November
2016**

Activities
include:

- Data gathering
- Work plans

**November
2016 – Feb
2017**

Activities
include:

- Condition assessment
- Scenario development
- Beneficiary considerations

**February
2017 – April
2017**

Activities
include:

- Run model
- Calibrate model
- Economic analysis

**April 2017 –
July 2017**

Activities
include:

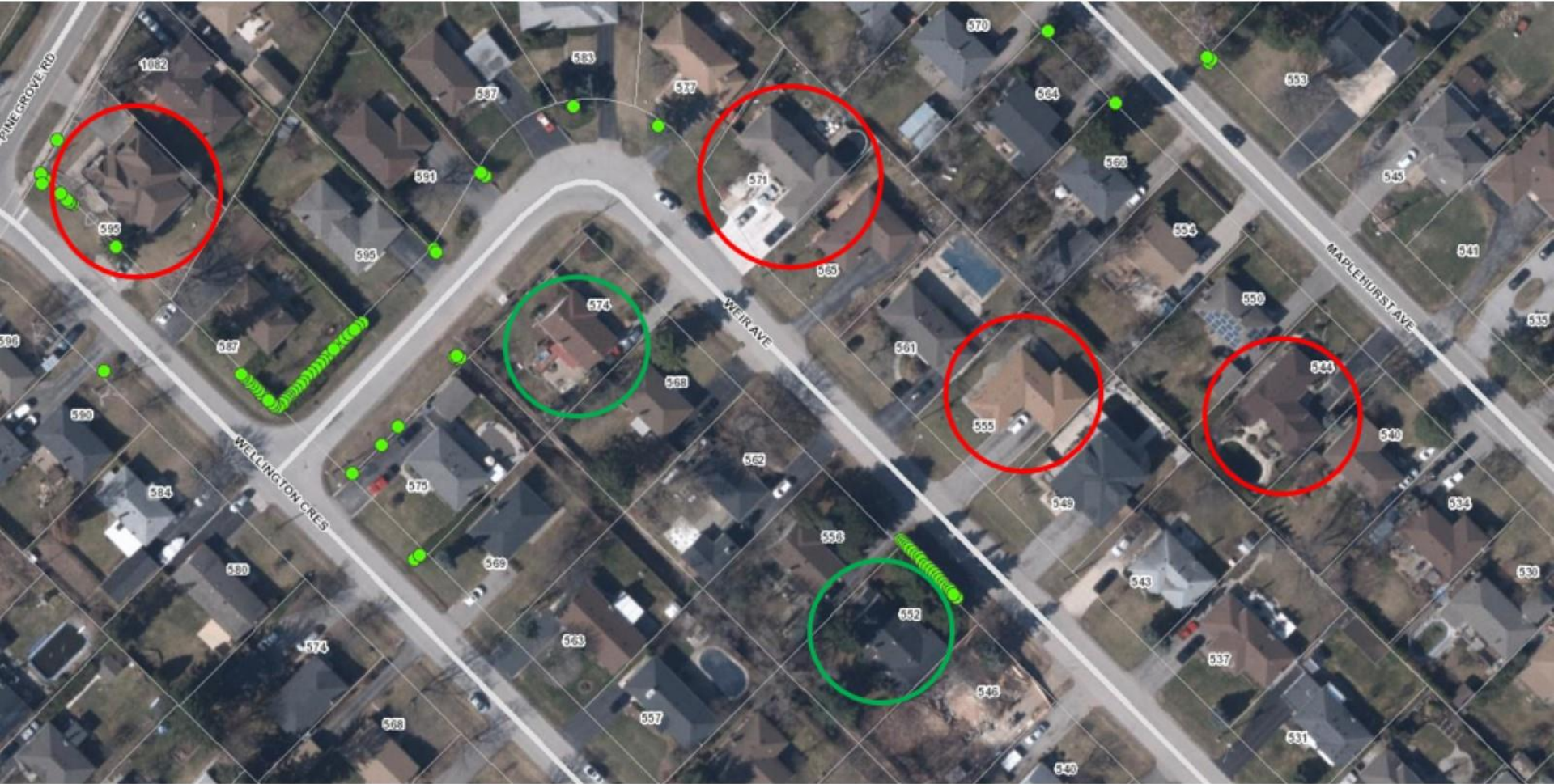
- Monitoring & maintenance plans
- Updating asset management strategies, plans, policies
- Long-term financial planning

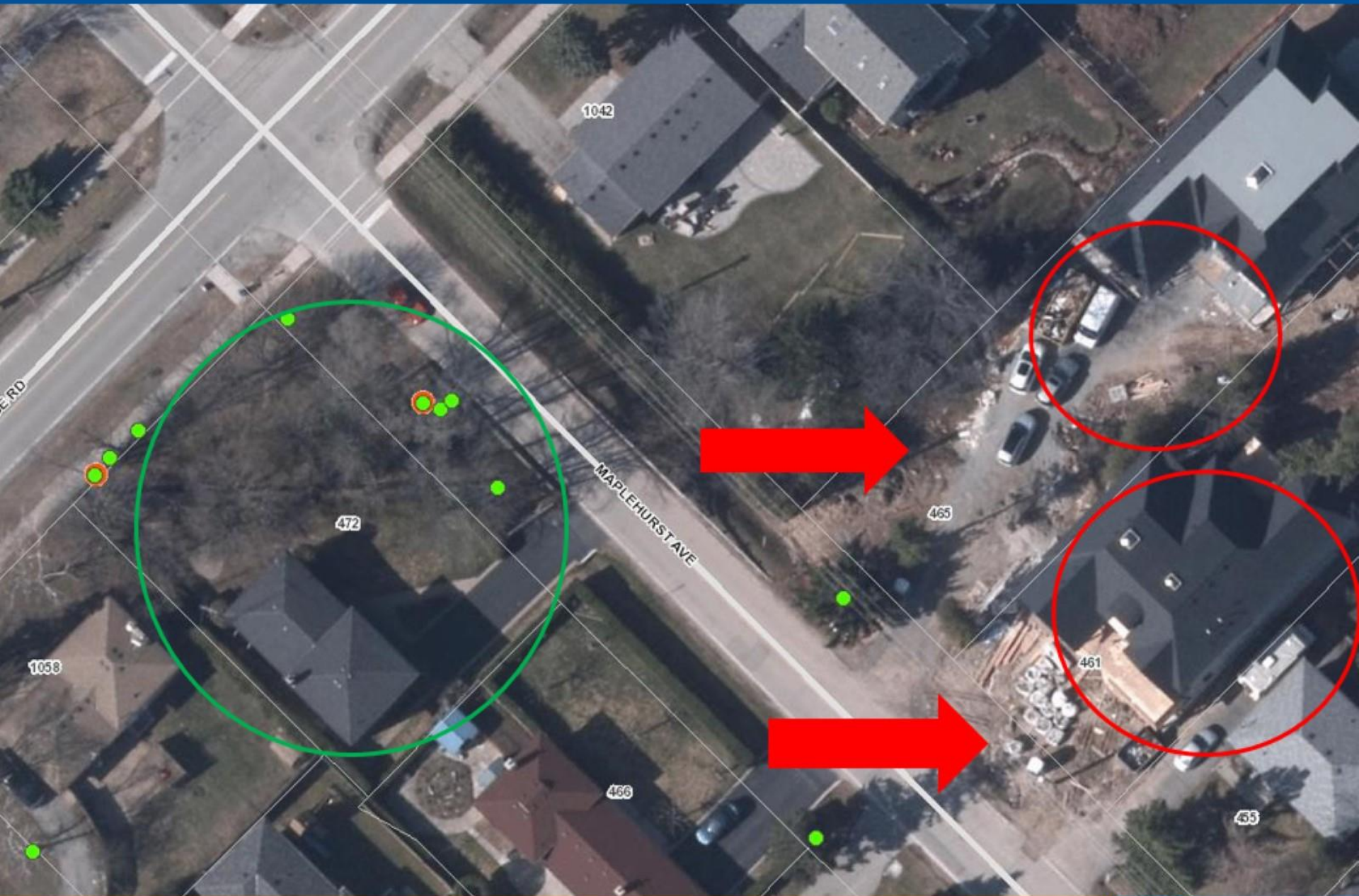
**July 2017 –
December
2017**

Activities
include:

- Implement asset management strategies, plans, policies
- Identify next steps











Where we are:

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Progress To Date

- **Condition assessment** – Area characterization. Topographic survey completed. Channel data collection (level loggers and groundwater monitors) started in fall 2016, some data collection still underway to supplement existing characterization but nearly complete. Data will be used to improve system knowledge.
- **Scenarios** – Being defined in concert with the Storm Water Master Plan work that is nearing scenario identification based on preliminary results (model shift from permeable to impermeable and climate change impacts). Testing system response and sensitivity to extreme weather impacts.
- **Modelling** – PCSWMM model already prepared within the Storm Water Master Plan work, ready to model scenarios
- **Beneficiary Considerations** – Preliminary list drafted, reviewed with feedback from MNAI
- **Challenges** – Not significant – key is running pilot with the SWMP. Work progressing well. Asset management/finance team members are monitoring pilot, ready to move to natural asset valuation stage.

MNAI Pilot

- Helping to focus on need to better define and consider role of natural assets; town's specific consideration relates to how best to deal with changing lot coverage in areas with 'monster home' development pressures including natural/open water receivers and value of remnant streams
- Good position with consultant already on board doing the SWMMP; opportunity to integrate natural assets into Master Plans explicitly through analysis and public consultation
- Growing understanding of role of natural assets, helping to look forward to how these assets will be added to inventory with parameters and valuation



Oakville's MNAI Pilot

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