Township of Ashfield-Colborne-Wawanosh Servicing Master Plan

Community of Port Albert

Public Information Meeting

September 7, 2019

TOWNSHIP OF
ASHFIELD - COLBORNE - WAWANOSH

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Agenda

- Project Scope
- Study Area Limits
- Master Plan Process
- Components of Master Plans
- Preferred Implementation Options
- Report Recommendations
- Council Endorsement
- Next Steps

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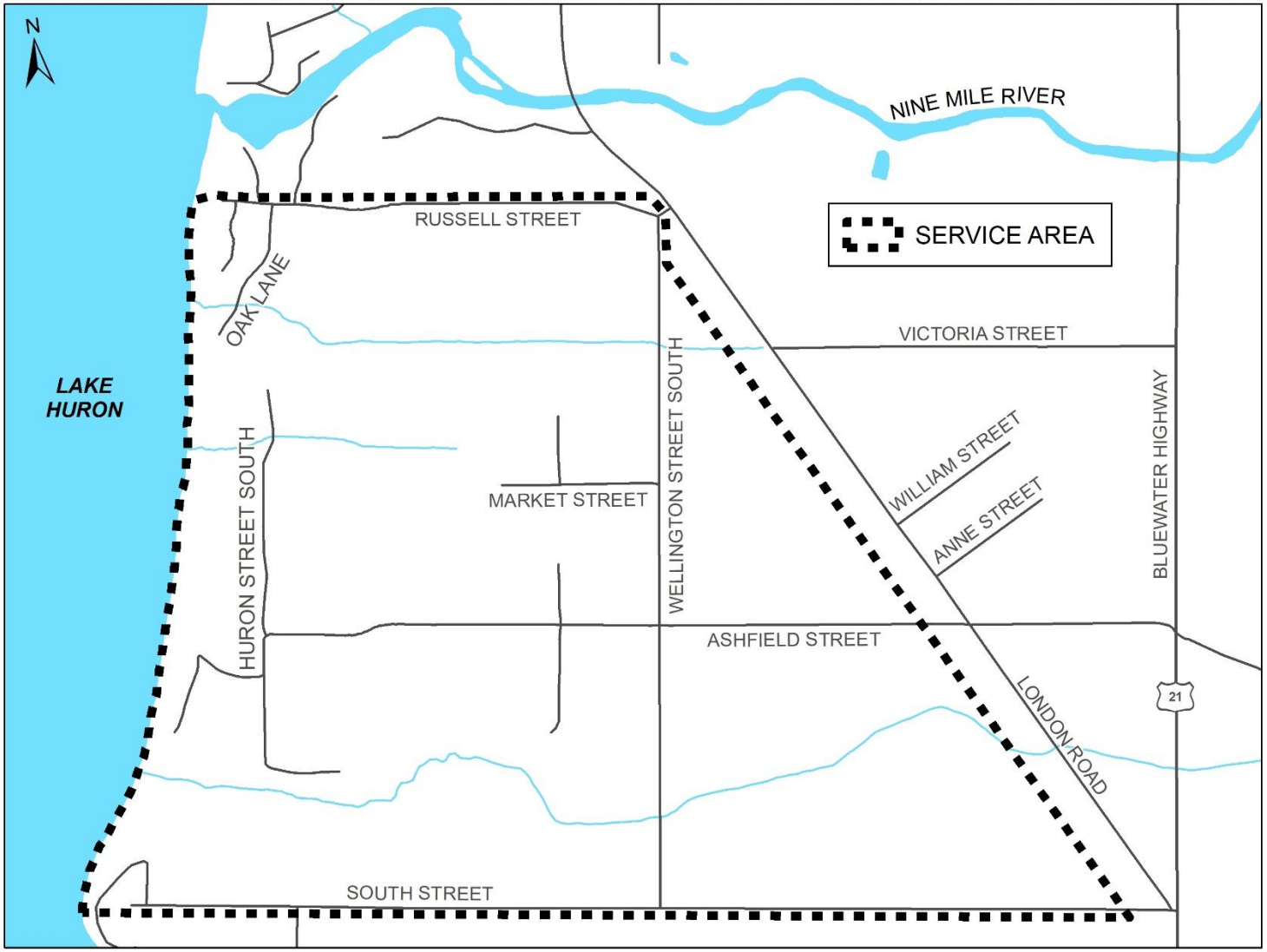
Project Study Area



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Master Plan Study Scope

- Examine existing drainage facilities within the study area and define drainage catchments
- Review municipal sanitary and water servicing issues within the study area and suggest an approach
- Consult with Local Residents and Review Agencies
- Develop a phased urban expansion strategy for the study area that addresses drainage requirements as well as other servicing needs
- Identify and assess existing and required drainage outlets to Lake Huron needed to accommodate development plan
- Prepare a report documenting the Master Plan process and study recommendations

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Features of a Master Plan

- Takes a System Wide Approach to Planning which relates Infrastructure either Geographically or by Function
- Recommends projects to be implemented over an extended period of time
- Addresses at minimum the First Two Phases of the Municipal Class EA and can also cover other phases
- Recommends an Infrastructure Master Plan which can be Implemented through the completion of separate individual projects

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Master Plan Timelines

• Initial Notice Published	June 2018
• Questionnaire Mailed to Residents	June 2018
• Compiled Results of Questionnaire	Jan/Feb 2019
• On-Site Meeting with MVCA	May 2019
• Preliminary Engineering	Spring 2019
• Consultation with Affected Landowners	Spring 2019
• Public Meeting	September 2019
• Finalize Master Plan	Winter 2019/20

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INVESTIGATIONS

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Inventory of Existing Facilities

- Collection and review of existing infrastructure details from Township staff
- Infrastructure survey to confirm details of existing facilities
  - Pipe Inverts and size
  - Pipe gradients and current condition
  - Location and condition of outlets
- Review of digital elevation information and drainage reports to determine drainage catchments
- Site observation to confirm desktop review

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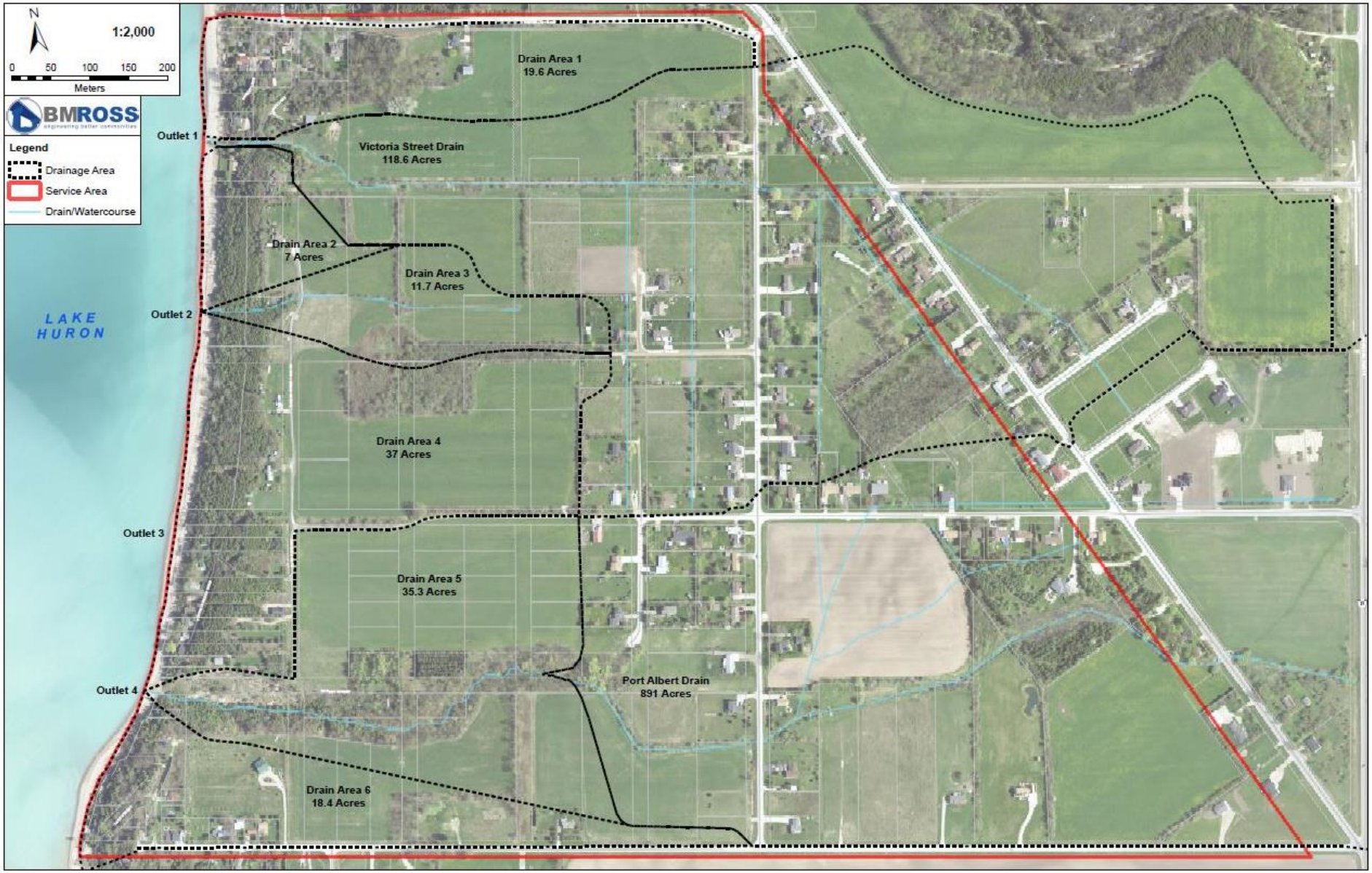
Natural Heritage Assessment

- Based on feedback from MVCA and MNRF, potential wetland habitats were identified within the study area
- Retained services of an ecologist to visit the site and asses the properties
- Obtained permission from landowners in advance
- No wetland on east parcel
- Locally significant wetland present on westerly site
- Setbacks will be required for adjacent developments

Locally significant wetland

Drainage Catchments



Drainage Outlets

- Four existing drainage outlets within the study area limits
  - Victoria Street MD
  - Ravine north of Market Street
  - Ravine at end of Ashfield Street
  - Port Albert Drain
- Upgrades needed to existing outlets in order to accommodate additional flows from new development
- Port Albert Drain outlet an ongoing concern due to erosion
- Not possible to direct all flows to Victoria Street drain outlet
- Upgrades to Ashfield Street outlet preferred

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Ashfield Street Outlet

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Ashfield Street Outlet

- Municipal Road Allowance.
- Significant Erosion at the top end.
- Very flashy flows during extreme rainfall events.
- Upgrades to include installation of pipe from Huron Street to Lake.
- Regrading and revegetation of ravine side slopes.
- Erosion protection at outlet.

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Survey Results

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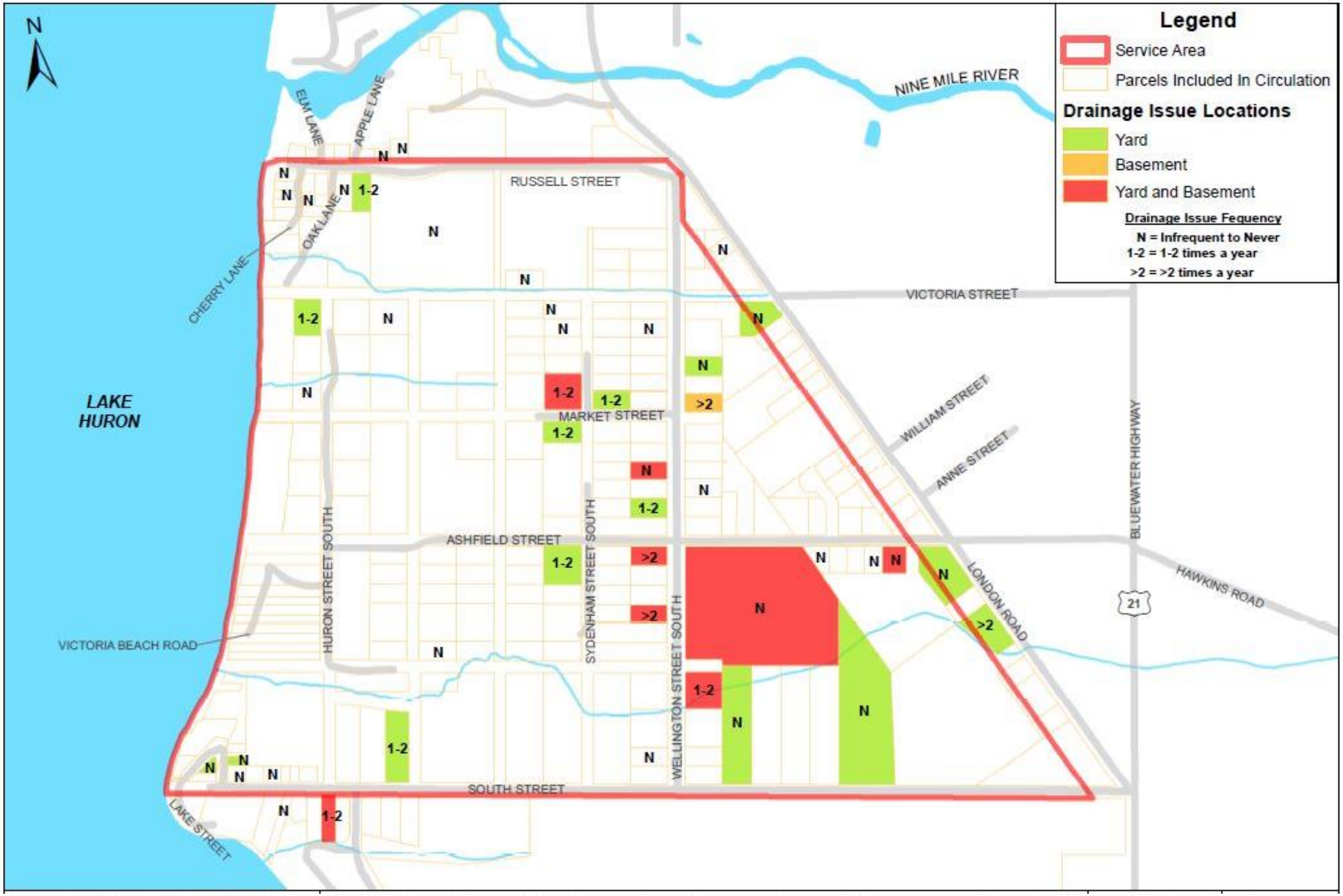
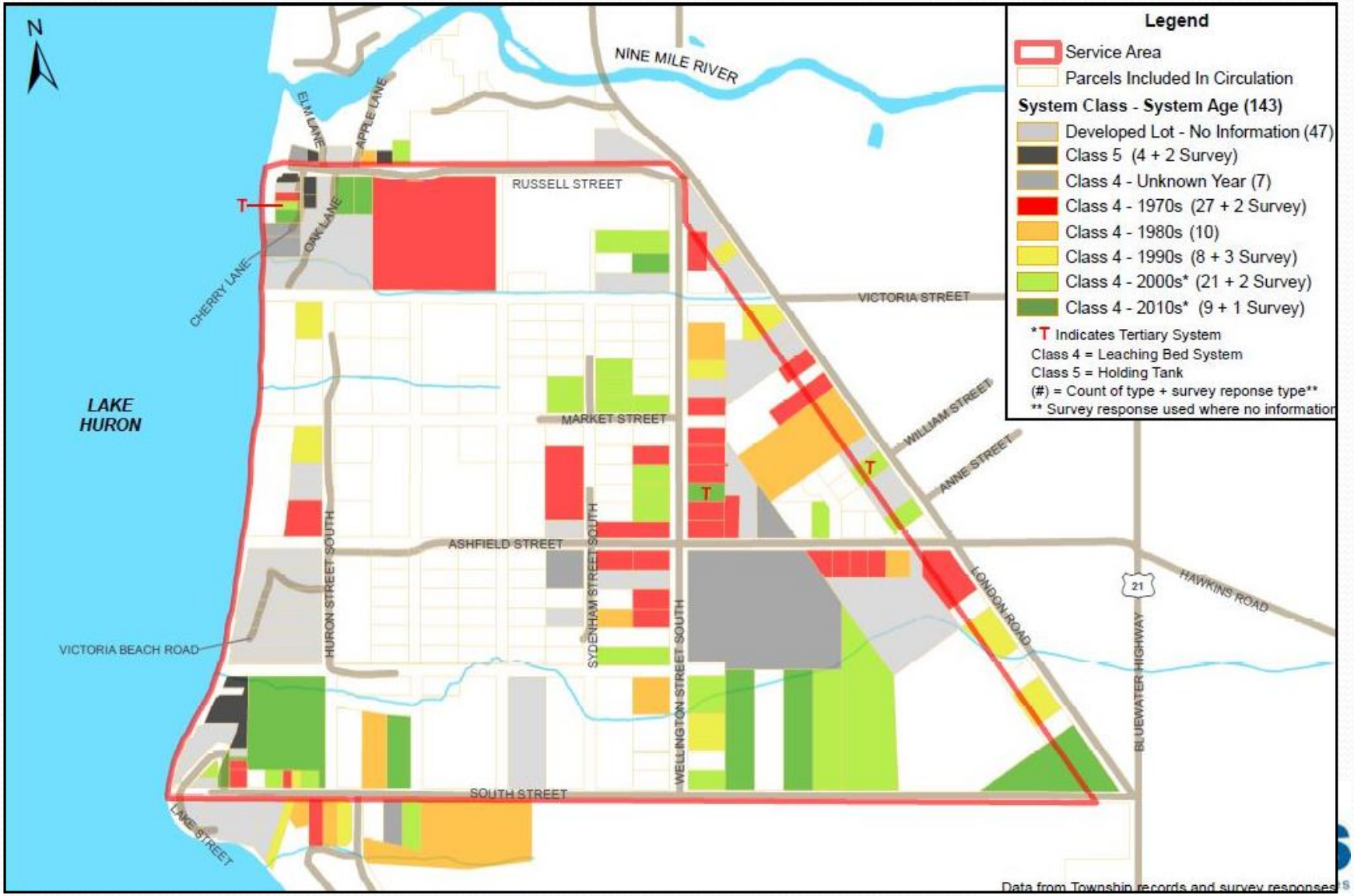
Survey Results: 21% Response

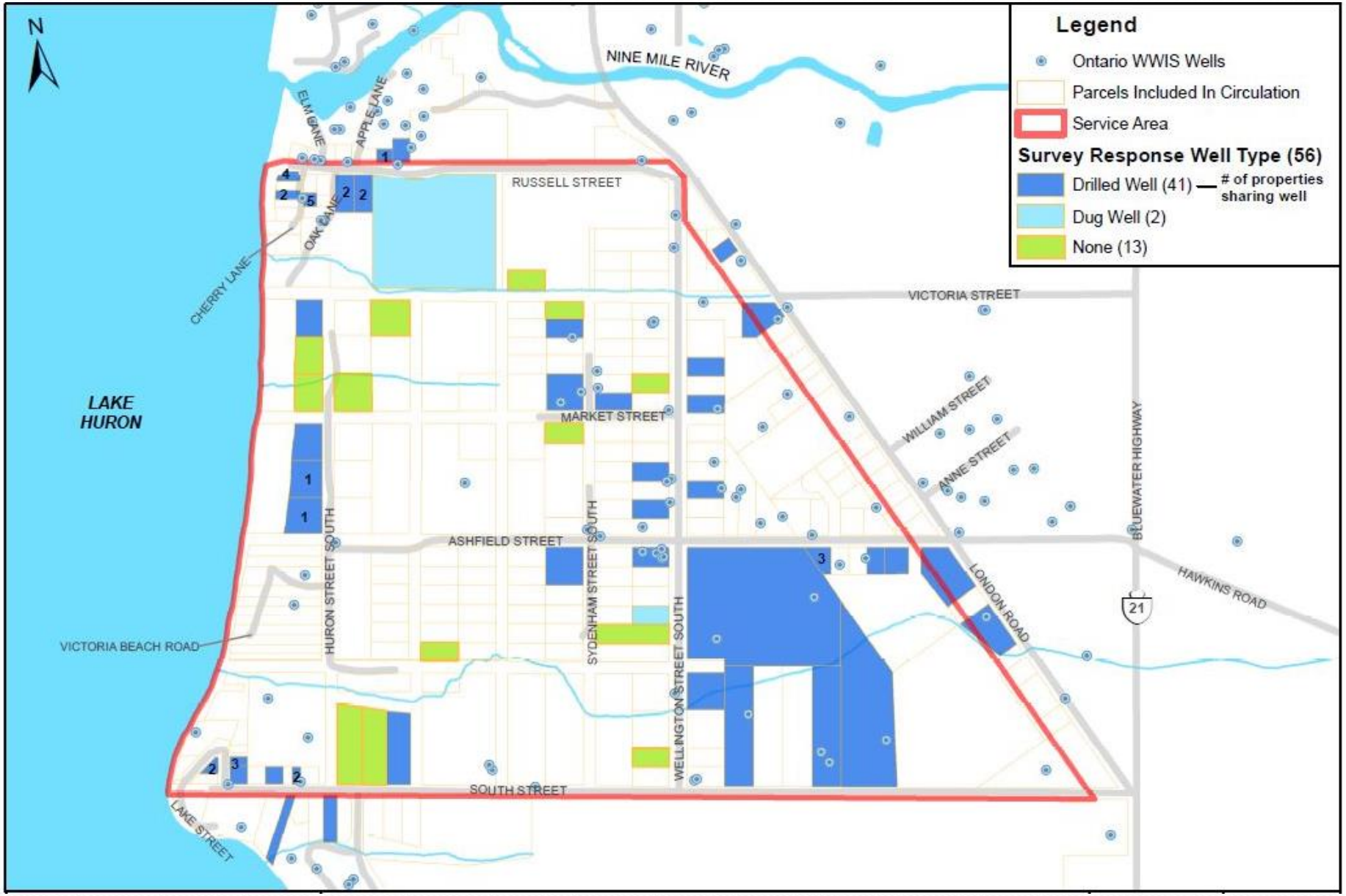
Drainage Problems



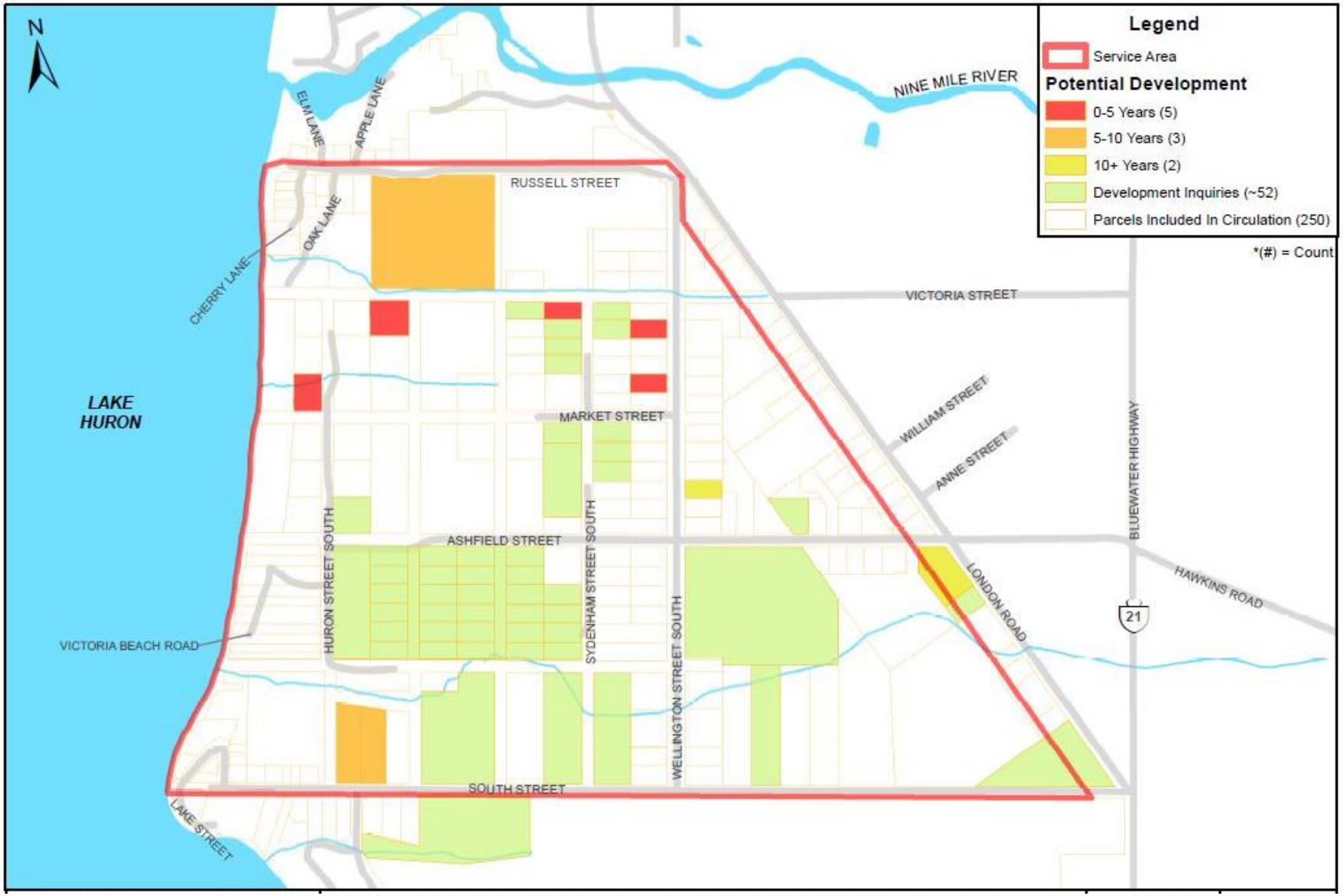
Survey Results - Septic



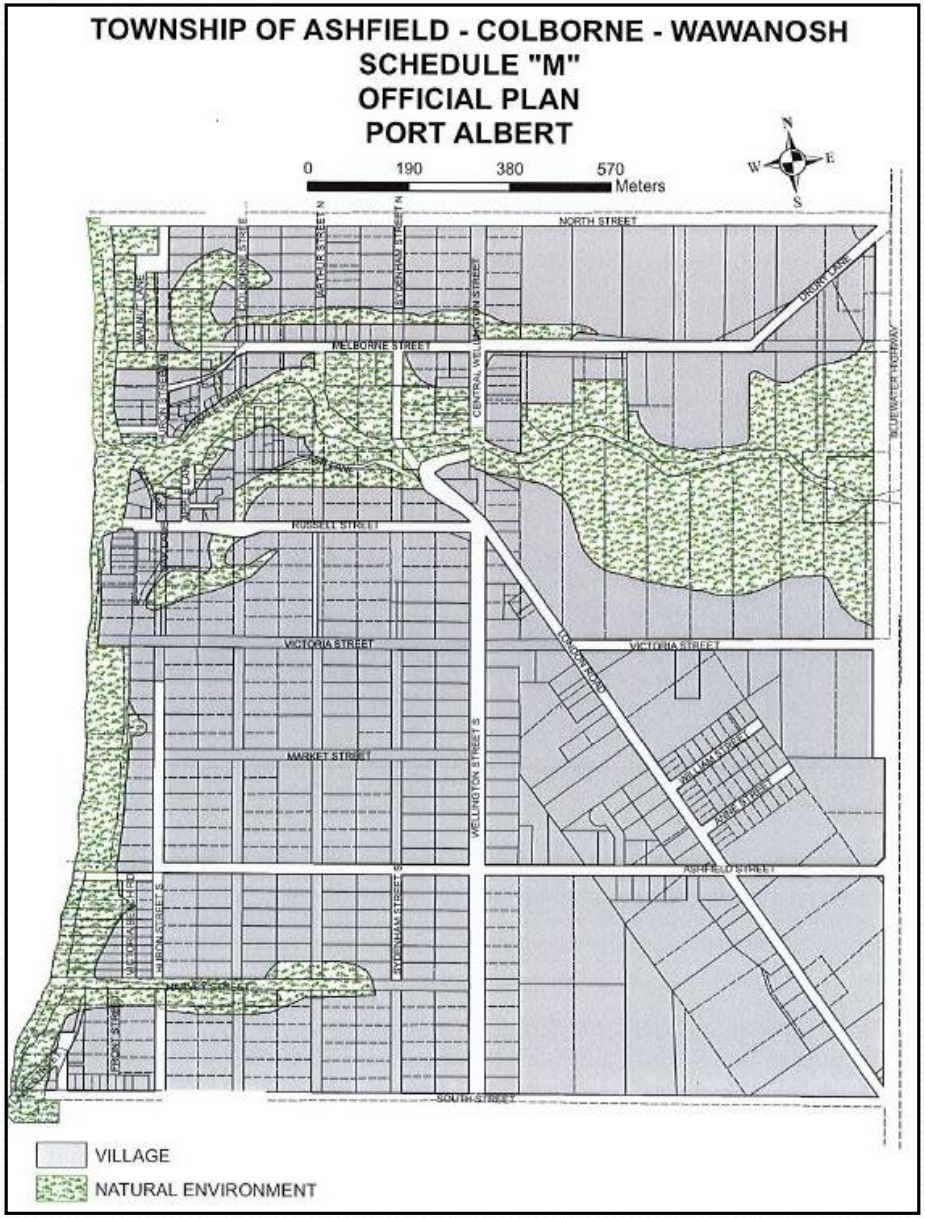
Survey Results – Water Supply



Survey Results – Development Potential



Official Plan and Zoning Maps



Master Plan Alternatives – Existing Roads

Problem Statement: Some existing road infrastructure within the east extent of the study area lacks sufficient drainage infrastructure to address the drainage needs of existing development

Alternative 1 – Reconstruct existing road infrastructure to an urban road cross-section and improve drainage infrastructure

Alternative 2 – Reconstructed existing road infrastructure to a rural road cross-section and improve drainage infrastructure

Alternative 3 – Do Nothing

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Evaluation Considerations

- **Alternative 1**
  - Will provide more efficient drainage of the road infrastructure
  - Meets the design standard established by the Public Works department for urban settlement areas
- **Alternative 2**
  - Less expensive than alternative 1
  - May not address all the drainage needs of existing development located adjacent to the corridor
  - Does not meet current urban design standard established by the Public Works Department for urban settlement areas

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Master Plan Alternatives – Future Development

Problem Statement: Upgrades to Existing Infrastructure are needed to facilitate development of Vacant Development lands in Port Albert (most currently in a holding zone)

Section 18.8.7 Holding Zone – VR1-H
In the area VR1-H no development is permitted until the needed municipal services such as a public road or drainage have been provided. The Holding Zone-H may be removed when these services are available or will be provided by the developer to the satisfaction of the Township.

Alternative 1 – Address stormwater drainage on a parcel by parcel basis as development applications are received

Alternative 2 – Develop a comprehensive approach dealing with drainage for the entire service area

Alternative 3 – Do Nothing

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Evaluation Considerations

- **Alternative 1**
  - Does not allow Township to plan ahead for infrastructure-related capital works projects
  - Difficult to address drainage impacts for entire sub-catchment
  - Leaves timing to chance and whim of developers
  - May result in multiple facilities for Township to maintain
- **Alternative 2**
  - Allows drainage requirements to be addressed for each sub-catchment as a whole
  - Phased approach will allow Township to plan ahead and budget for necessary infrastructure projects
  - Ensures that drainage outlets are designed to address full development within each catchment

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REPORT
Recommendations

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Recommendations

Select Alternative 1 for Existing Developed Areas and Alternative 2 for Future Development Areas

In Existing Developed Areas

- Reconstruct roads to an urban design standard – Similar to London Road
- Develop minimum standards for grading, drainage and lot sizes
- Retrofit Existing Facilities to Improve Water Quality

In Future Development Areas

- Develop a phasing plan for road and drainage infrastructure improvements
- Confirm locations and standards for drainage and road infrastructure

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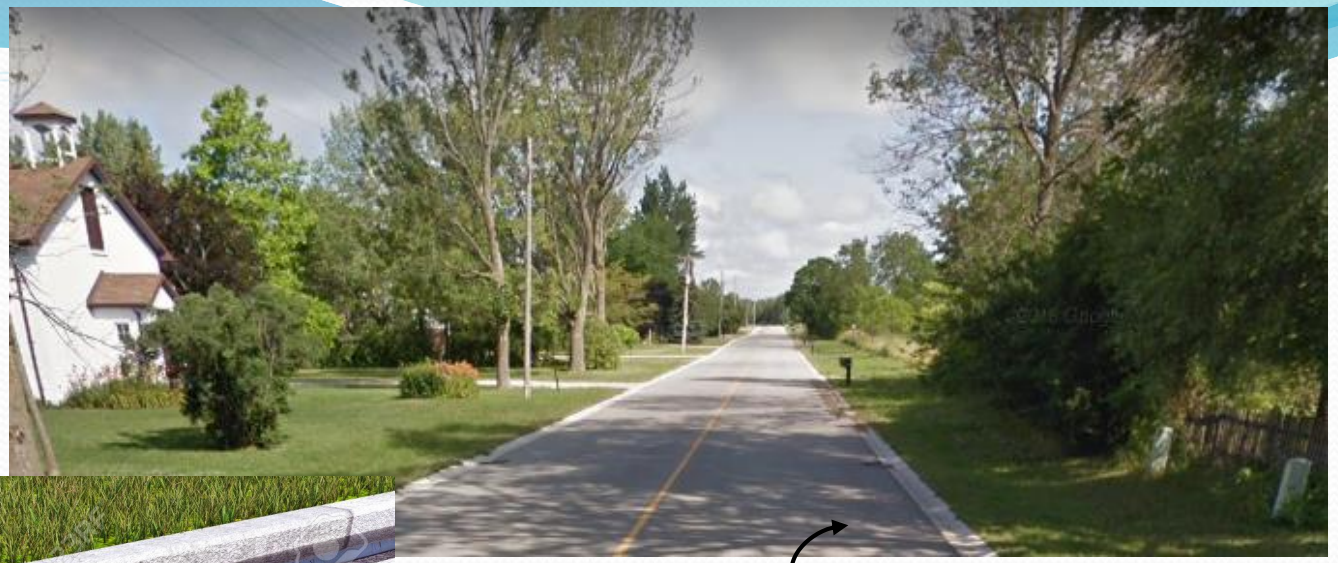
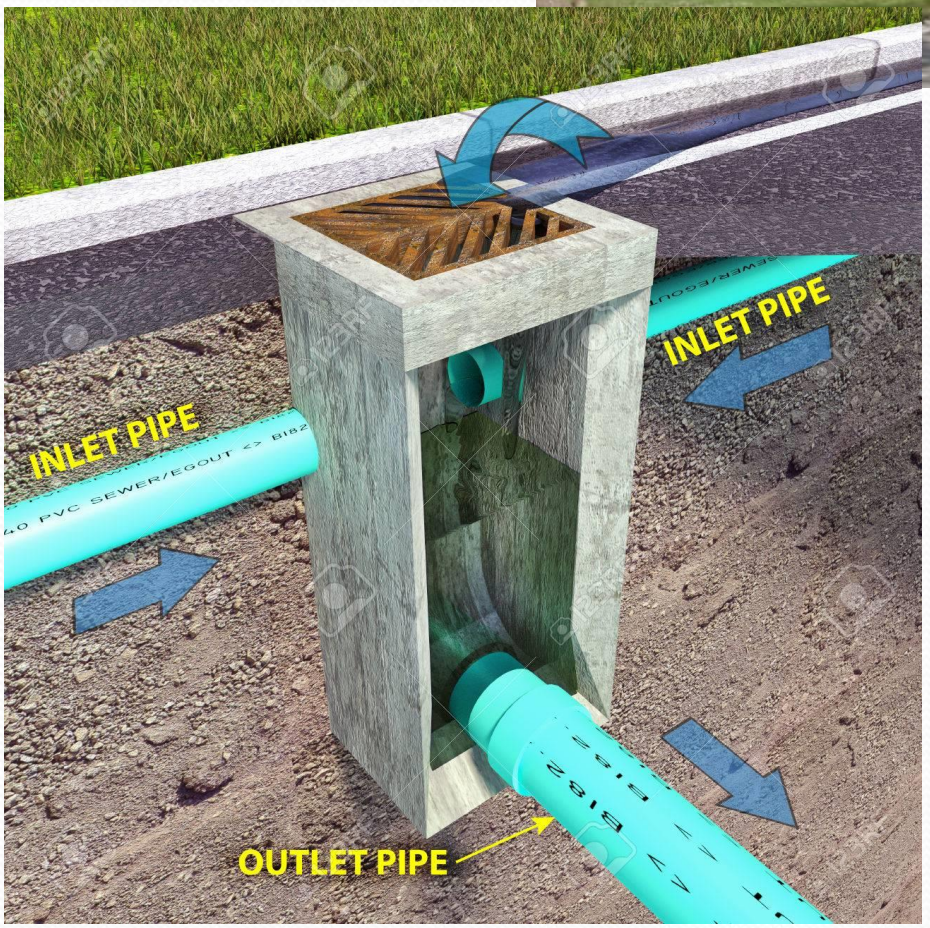
Urban Road Standard



London Road
After



London Road
Before

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Population and Growth

Population Data and Growth Rates (1961 to 2016)[1]

Year	ACW[2]	Ashfield Twp.	Port Albert
1961	N/A	1688	
1966	N/A		
1971	N/A	1703 (+.88%)	
1976	N/A	1820 (+6.9%)	
1981	N/A	1824 (+.22%)	
1986	N/A	1736 (-4.8%)	255
1991	N/A	1809 (+4.2%)	269 (+5.5%)
1996	5477		
2001	5411 (-1.2%)		
2006	5409 (-.04%)		458 (+70.3%)
2011	5582 (+3.2%)		
2016	5422 (-2.87%)		550 (+20.1%)
Population Change	-55	+121	+295
Percent Change	-1%	+ 7.2%	+115%
Avg Ann. Growth Rate	-0.046%	+0.43%	+2.6%

Building Permits Issued, 2014-2018

Year	Avg Housing Starts
2014	2
2015	5
2016	1
2017	3
2018	6
Total	17
5 year average	**3.4**

Population Projections: 2016-2038

Year	Low (1.0%)	Medium (1.5%)	High (2.0%)
2016	550	550	550
2018	570	570	570
2023	599	614	629
2028	630	662	695
2033	662	713	767
2038	696	768	847
20 Year Increase	**126 (6/yr)**	**198 (10/yr)**	**277 (14/yr)**

Proposed Phasing Plan – Developed Areas

1) Reconstruct Wellington Street between Ashfield & Russell
   - Lower profile of road to allow front yard drainage at more lots.
   - Install new drainage infrastructure discharging to Victoria MD

2) Reconstruct Wellington from Ashfield to South Street and Ashfield from Sydenham to London Road.

Future Development Lands

1)Reconstruct & realign Ashfield Street to 'municipal standard'
   - Upgrade outlet at west end of Ashfield Street

2) Construct a Stormwater Management (SWM) retention facility adjacent to Huron & Ashfield

3) Additional extensions of currently 'unopened' roads, based on demand, along with associated drainage upgrades

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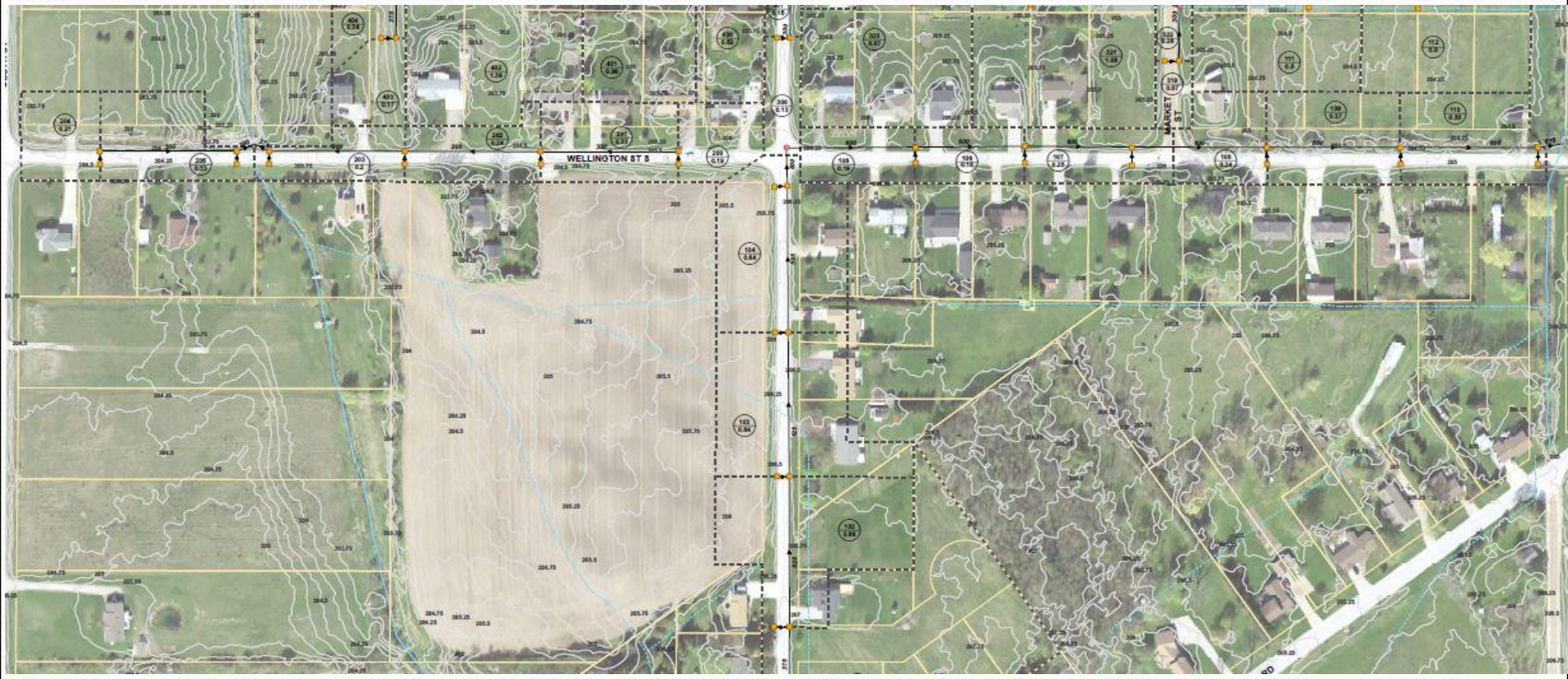
Wellington Street Reconstruction



- Install new storm drainage infrastructure including catchbasins and larger pipes
- Lower road to allow for positive drainage from properties to road allowance
- Install curb and gutter and ditch inlets
- Discharge to Victoria Street Drain – Outlet in good condition

What is a SWM Facility

What is a Stormwater Pond?

A stormwater pond is a constructed facility that is designed to improve water quality, provide flood protection and reduce erosion in downstream watercourses. Although these ponds can look natural, a stormwater pond is an engineered structure that must be maintained and cleaned out periodically to ensure proper function.

Catchbasin

01 **The stormwater pond collects surface water** runoff from rooftops, lands and roads.

02 **Solids in the water settle** to the bottom of the pond as sediment.

03 Plants and bacteria help to **remove some pollutants.**

04 **Cleaner water leaves** the stormwater pond and eventually makes its way to the Lake.

What does a SWM Facility Look Like?

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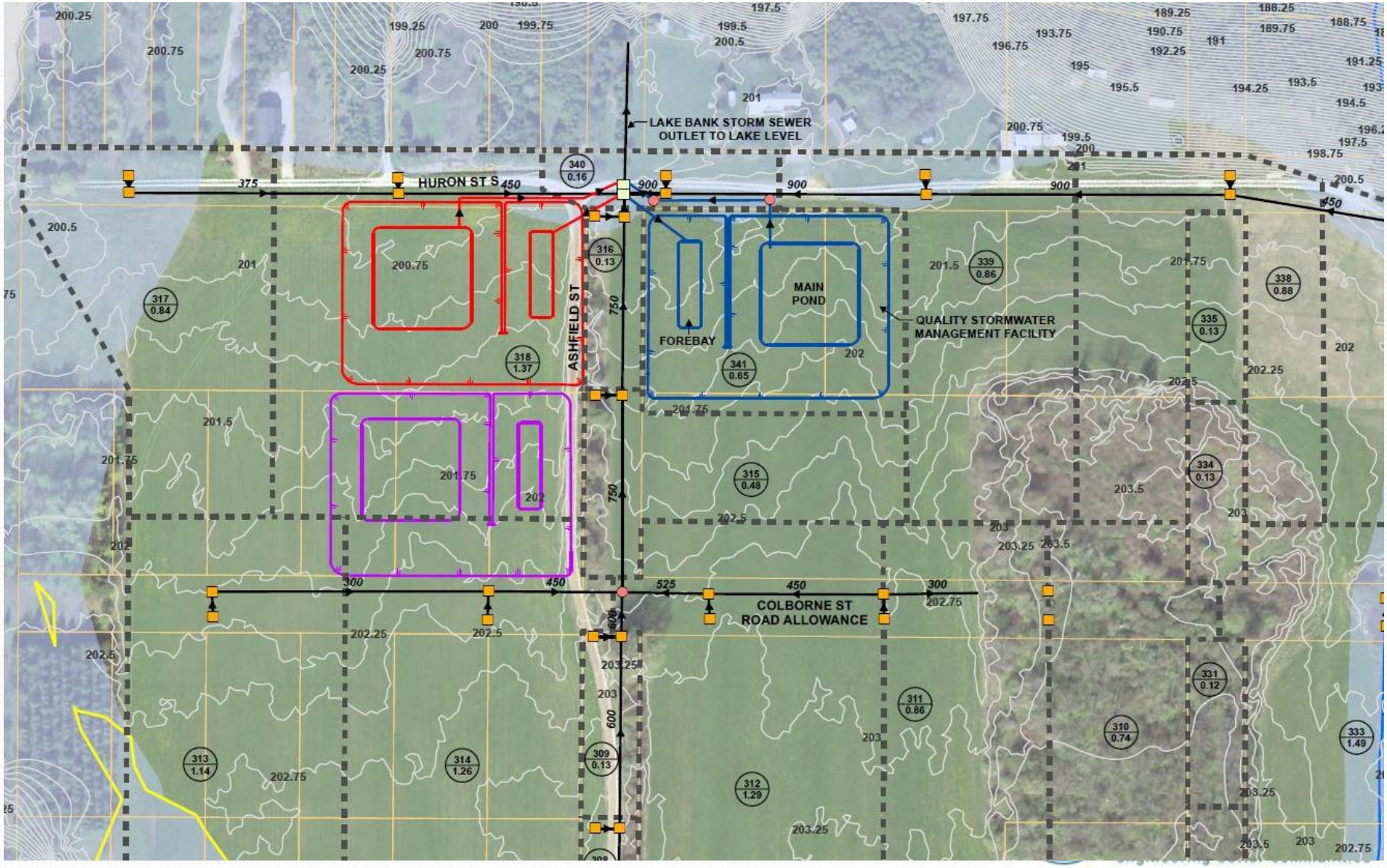
Proposed Regional SWM Facility

- Located adjacent to intersection of Ashfield and Huron
- Two celled pond facility to provide quality control for stormwater drainage discharging to Lake Huron
- Pond outlet would discharge to upgrades storm drainage outlet at west end of Ashfield Street
- Two possible locations being considered for pond facility

South of Ashfield

North of Ashfield

Possible SWM pond locations



Servicing of Future Development Lands

Financing Approach

- Options for financing of new storm systems within established community areas: D.C., Drainage Act, Municipality Pay, Area Rating:
  - Development Charges (D.C.) – Municipality pays upfront (more suited for new development).
  - Drainage Act – Not recommended in urban setting
  - Municipality Pay – Different than past projects for the area
  - Area Rating Bylaw – Benefitting landowners pay
- Suggest similar approach to that used on the London Road Project
  - Base rate plus area charge based on property size
  - Will need to calculate costs based on benefitting drainage area and contribution to stormwater infrastructure (piping, outlets, etc.)
  - Payment will be triggered when benefitting works occur
  - Township will have to finance some work initially and then collect from residents over a set time frame
  - As with London Road, Township would pay for a share of the storm sewer related costs along the established road corridor

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Next Steps

- Collect input from public meeting and review with ACW staff
- Modify report recommendations based on feedback
- Finalize Financing Approaches and Cost Estimates
- Public Open House to Present Financing Approaches
- Finalize Master Plan Report
- Council Adoption of Master Plan
- Consider inclusion of Master Plan Recommendations in ACW Official Plan
- Make Final Report Available to Public

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Questions?

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