

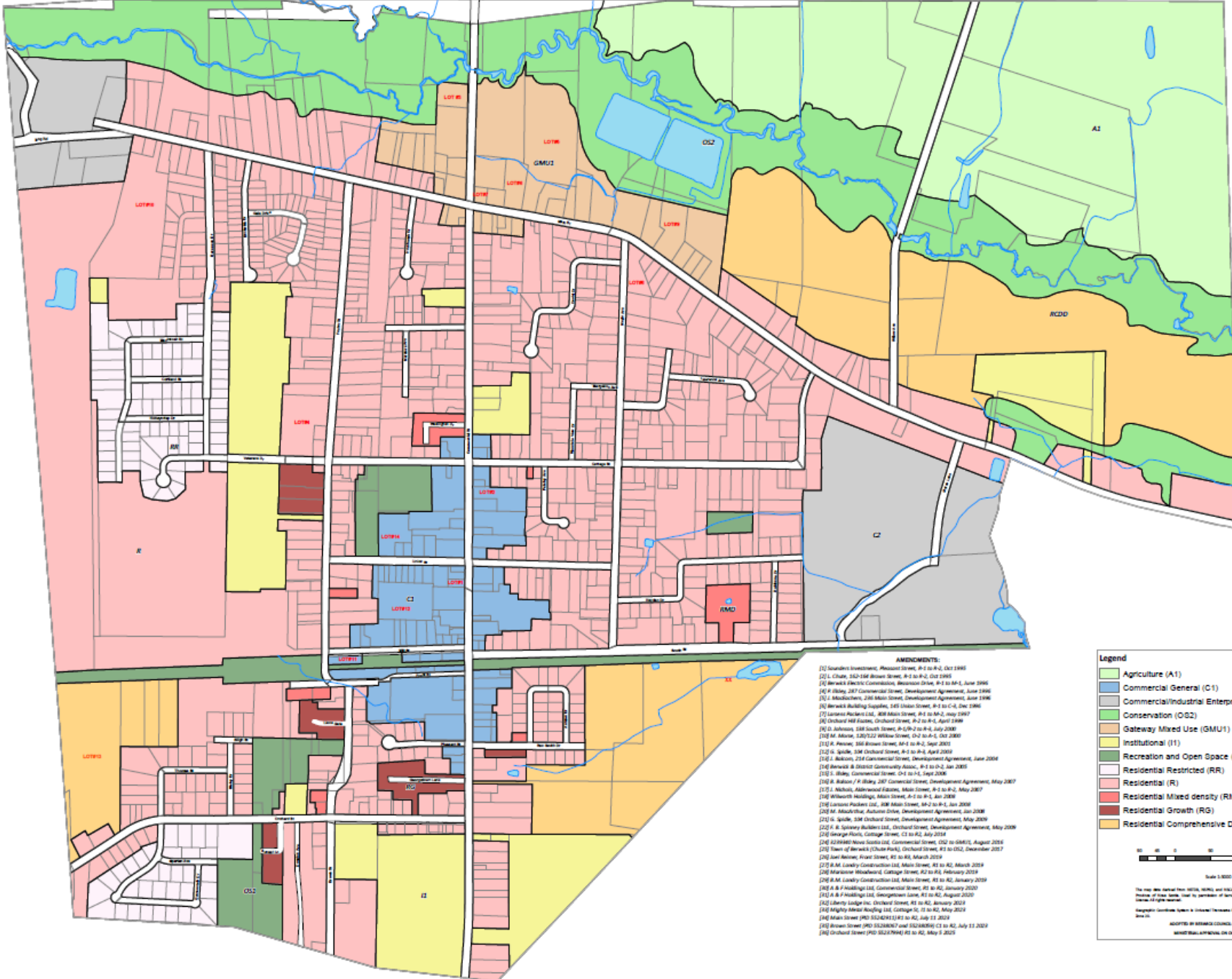


Stormwater Management Plan Development

30 April, 2026

Town of Berwick

- Mi'kmaq name Davor O'ack –divided waters
- Headwater for the Annapolis River which runs to the west and the Cornwallis/ Jijuktu'kwejk which runs to the east
- Only town in NS without a municipal water system
- Built on the south side of the rivers with Highway 101 running parallel to the north



- AMENDMENTS:**
- (1) Standard Investment, Pleasant Street, R-1 to R-2, Oct 1995
 - (2) L. Chan, 242-156 Blaine Street, R-1 to R-2, Oct 1995
 - (3) Berwick Electric Connection, Beacon Drive, R-1 to R-2, June 1996
 - (4) W. Biting, 287 Commercial Street, Development Agreement, June 1996
 - (5) J. MacDuchon, 281 Main Street, Development Agreement, June 1996
 - (6) Berwick Building Supplies, 145 Union Street, R-2 to C-1, Dec 1996
 - (7) Caruso Packer Ltd., 808 Main Street, R-1 to R-2, May 1997
 - (8) Orchard Hill Estates, Orchard Street, R-2 to R-1, April 1998
 - (9) D. Johnson, 138 South Street, R-1 to R-2, July 2000
 - (10) M. Adams, 120-122 Wilson Street, D-1 to R-1, Oct 2000
 - (11) K. Penney, 166 Brown Street, R-1 to R-2, Sept 2001
 - (12) G. Spille, 138 Orchard Street, R-1 to R-2, April 2003
 - (13) A. Robins, 118 Commercial Street, Development Agreement, June 2004
 - (14) Berwick & District Community Assoc., R-1 to R-2, Jan 2005
 - (15) S. Boley, Commercial Street, D-1 to R-1, Sept 2006
 - (16) A. Robins / J. Boley, 187 Commercial Street, Development Agreement, May 2007
 - (17) J. Nikkui, Alderwood Estates, Main Street, R-2 to R-1, May 2007
 - (18) Wilworth Holdings, Main Street, R-1 to R-1, Jan 2008
 - (19) Caruso Packer Ltd., 808 Main Street, R-1 to R-1, Jan 2008
 - (20) M. Maudslough, Autumn Drive, Development Agreement, Jan 2008
 - (21) G. Spille, 138 Orchard Street, Development Agreement, Mar 2009
 - (22) A. Squyres Builders Ltd., Orchard Street, Development Agreement, May 2009
 - (23) George Piro, Cottage Street, C-1 to R-2, July 2014
 - (24) Kilmohr Nova Scotia Ltd, Commercial Street, OS2 to OSR1, August 2016
 - (25) Town of Berwick (Chase Park), Orchard Street, R-1 to OS2, December 2017
 - (26) Joel Malone, River Street, R-1 to R-1, March 2019
 - (27) M. Lundy Construction Ltd, Main Street, R-1 to R-2, March 2019
 - (28) Marianne Woodhead, Cottage Street, R-1 to R-1, February 2019
 - (29) M. Lundy Construction Ltd, Main Street, R-1 to R-2, January 2019
 - (30) A. B. Haddage Ltd, Commercial Street, R-1 to R-2, January 2019
 - (31) A. B. Haddage Ltd, Commercial Street, R-1 to R-2, August 2019
 - (32) Liberty Lodge Inc, Orchard Street, R-1 to R-2, January 2019
 - (33) Highgate Building Ltd, Cottage St, C-1 to R-2, May 2019
 - (34) Main Street (RD 5524915) R-1 to R-2, July 11, 2019
 - (35) Brown Street (RD 5524917 and 5524918) C-1 to R-2, July 11, 2019
 - (36) Orchard Street (RD 5524914) R-1 to R-2, May 9, 2019

Legend

- Agriculture (A1)
- Commercial General (C1)
- Commercial/Industrial Enterprise (C2)
- Conservation (OS2)
- Gateway Mixed Use (GMU1)
- Institutional (I1)
- Recreation and Open Space (OS1)
- Residential Restricted (RR)
- Residential (R)
- Residential Mixed density (RMD)
- Residential Growth (RG)
- Residential Comprehensive Development District (RCDD)

0 50 100 150 200 250 Feet

Scale 1:5000

This map was prepared from GIS, GPS, and other data to the best of our knowledge and belief. The Town of Berwick does not warrant the accuracy of the information shown on this map.

Approved by Council on October 17, 2019

ADOPTED BY BERWICK COUNCIL ON JULY 11, 2019

BERWICK MUNICIPAL CLERK OCTOBER 23, 2019

Northern Gateway





Public Concern





Public Concern



11 July 2024



11 July 2024



11 July 2024



11 July 2024



- Recognized need to create a Stormwater Management Plan
- Needed to have Public Involved, 24 March 2025 Session

Council Response



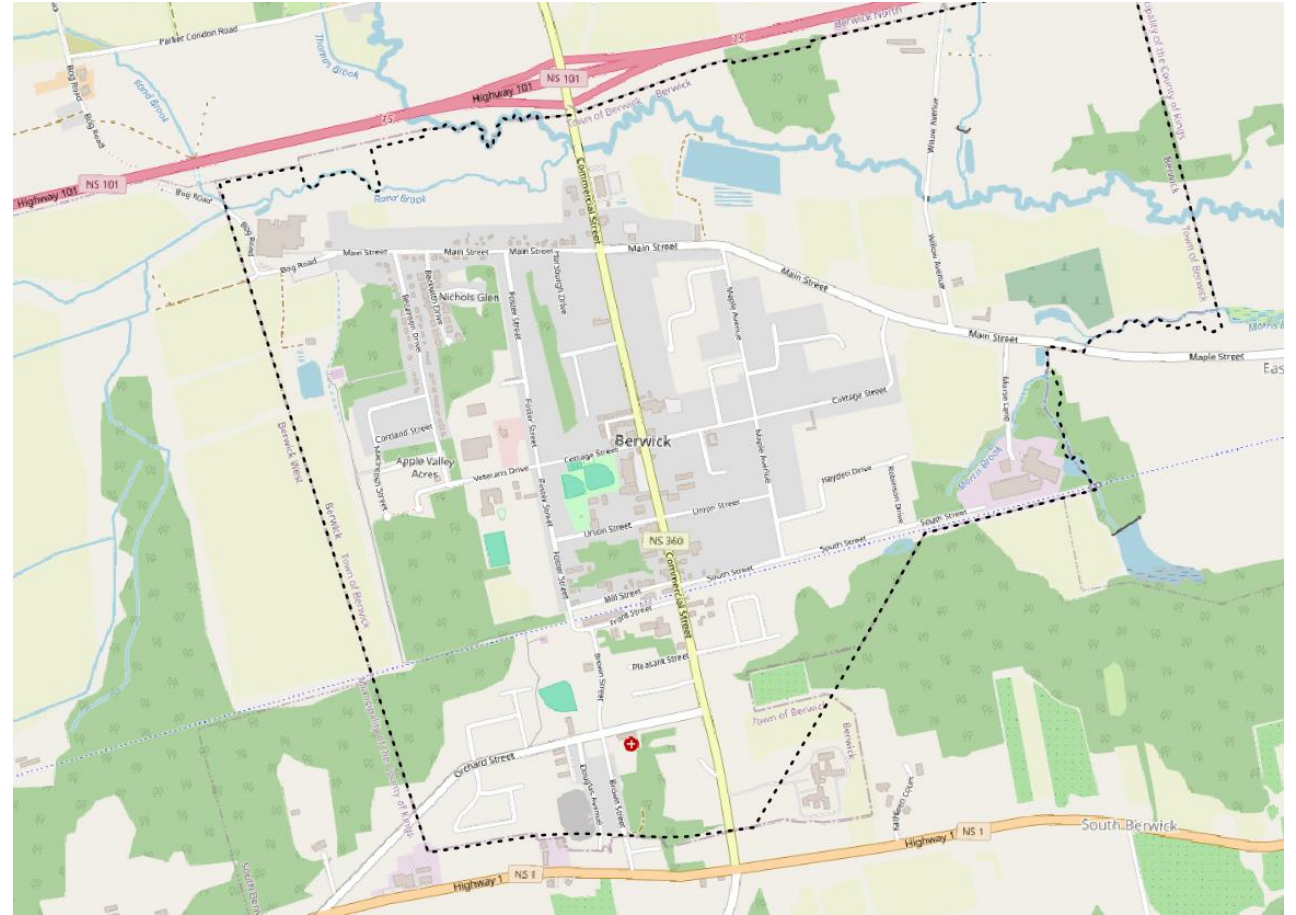
What Did we Learn?

- Stormwater management is important
- Development challenges
- Infrastructure challenges
- Impact on future road work
- Know your property
- Appreciate climate change
- Understand the river



Stormwater Plan – Next Steps

- Timeline
- Considerations
- Modelling Results
- Mitigation Scenarios
- Recommendations
- Way Forward



Timeline

2024

● Apr 1
Need for updated
Stormwater Plan

● Jun 13
PCAP Funding
Application Submitted

● Jul 11
Significant Rain Event
(1:100 yr – 4 hr storm)

● Jul 25
PCAP Funding Award

● Nov 1
RFP Released

● Dec 20
RFP Closed
(7 Submissions)

2025

● Jan 14
RFD to Council
to award to CBCL

● Jan 30
Project Kickoff
Meeting with CBCL

● Mar 24
Public Engagement Session
(Data Gathering)

● Oct 27
Presentation to Council
Work Completed to Date

2026

● Mar 2
Public Information Session
Draft Report Review

● Mar 9
Town Feedback Submitted
Toward Final Report

● Apr 6
Final copy received



Considerations

- Located along the Cornwallis/Jijuktu'kwejk River, at the head of the Annapolis and Cornwallis/Jijuktu'kwejk River watersheds
- Relatively flat topography; shallow water table
- Cornwallis/Jijuktu'kwejk River flow can be impeded by high tides in the Minas Basin
- Previous Stormwater Management Strategy from 2004

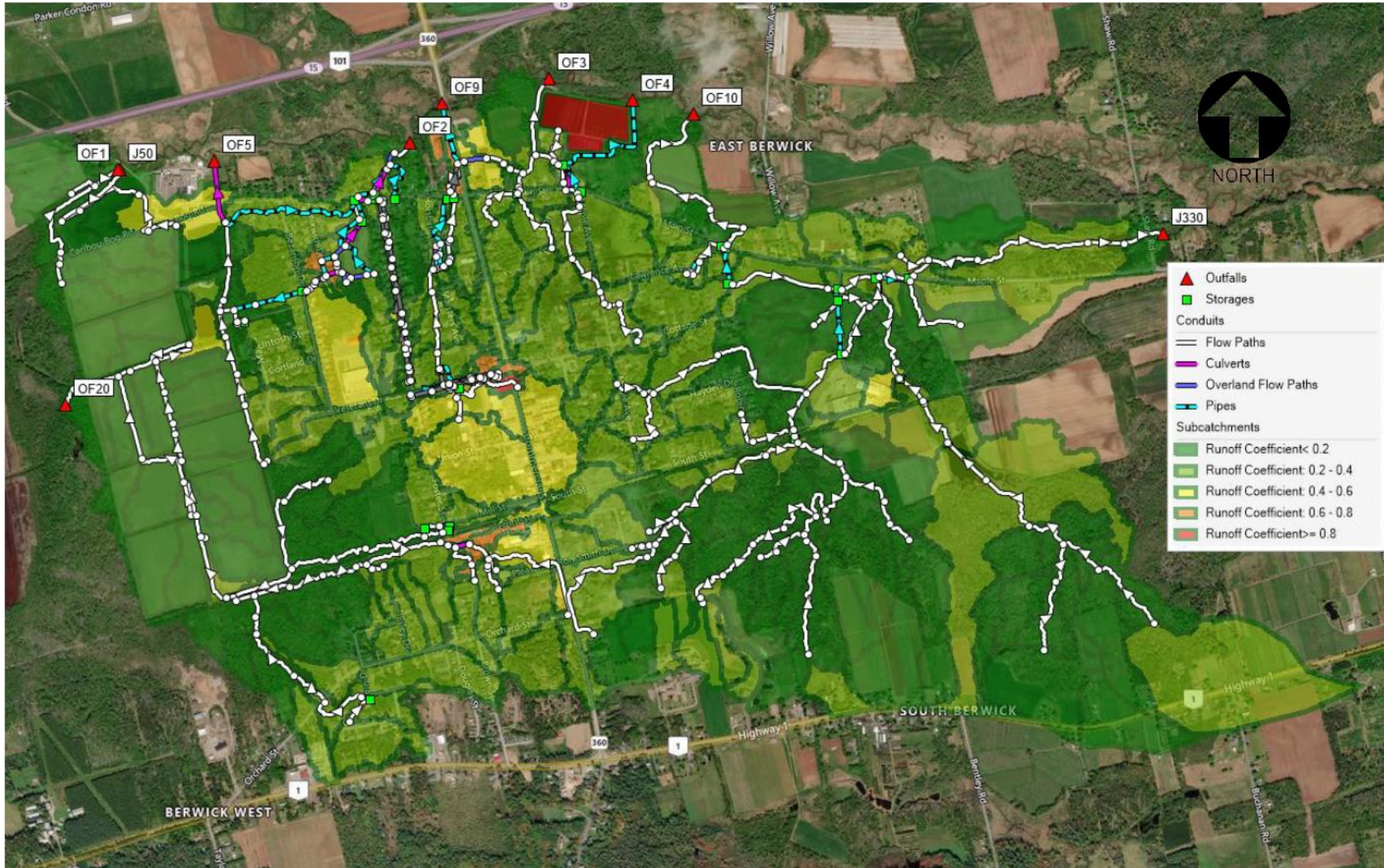
Considerations

- Minor storm system servicing parts of the Town, other parts rely on overland water flow
- Updated stormwater plan needed to:
 - Inform future development
 - Inform active transportation methods
 - Inform capital improvements to infrastructure
- Localized flooding during the 11 July 2024 rain event
 - Data points for model validation

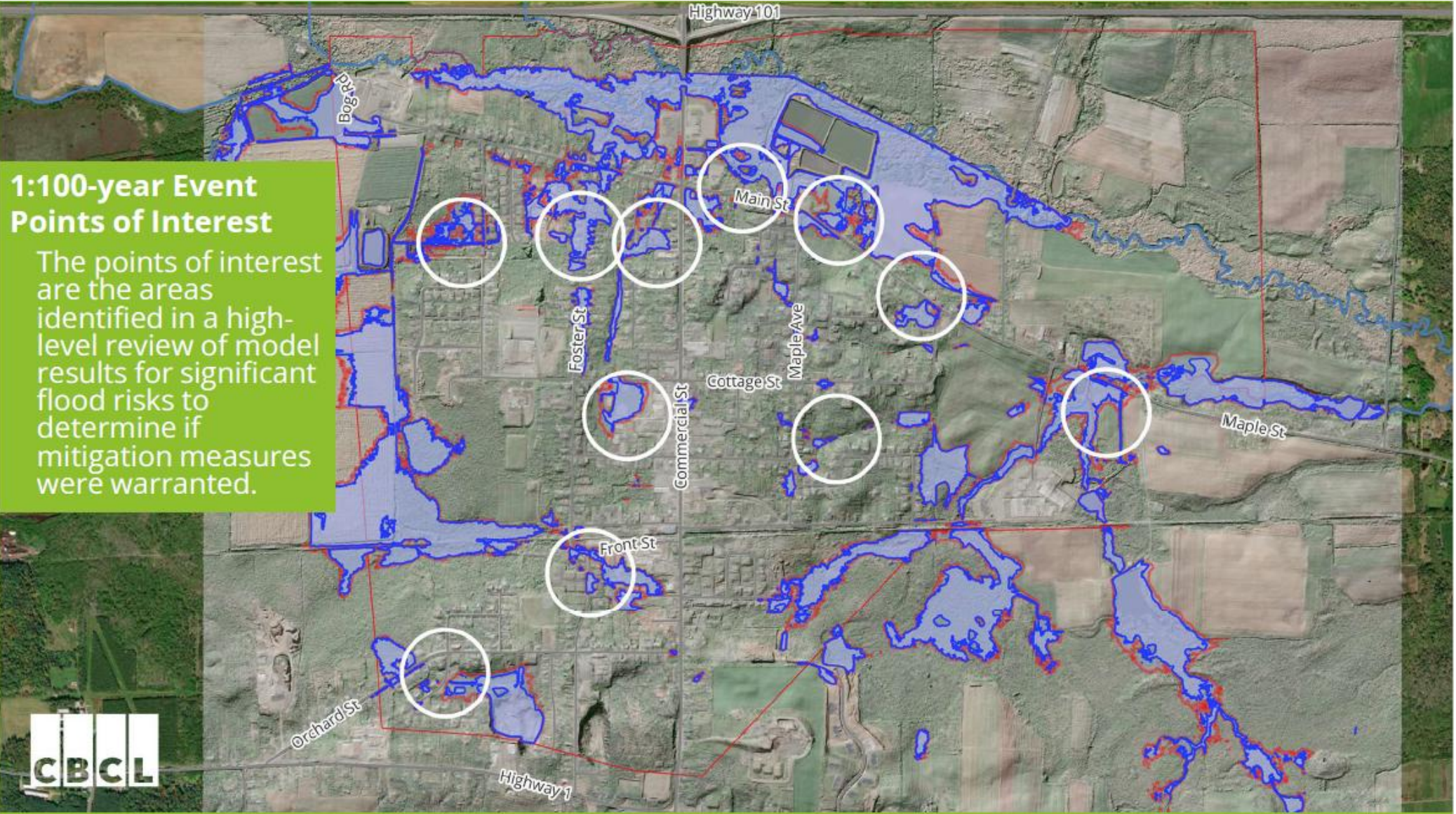
Modeling Results



Modeling Results



Modeling Results



1:100-year Event Points of Interest

The points of interest are the areas identified in a high-level review of model results for significant flood risks to determine if mitigation measures were warranted.



Recommendations

- Implement a **Stormwater Management Policy**
 - Requirements for balancing pre- and post-development flows
 - Development restrictions in “Flood Risk” areas
- Implement a **Breaking Soils Policy**
 - Culvert sizing (minimum 500mm)
 - Open ditch sizing



Recommendations

- Incorporate **Detention Areas** within the stormwater system to control flow rates
 - Areas with high absorption / low run-off coefficients
 - Parks, Greenspaces
- Formalize access to existing and future stormwater drainage corridors by way of **Easements**
 - 6m minimum widths for heavy equipment access



Recommendations

- Expand the major storm collection system
 - Addition of **curbs and related stormwater infrastructure** during future capital street renewals
- Review internal stormwater **Preventative Maintenance Practices**
 - Inspection and maintenance of open ditches
 - Inspection and maintenance of culverts and storm pipes
 - Inspection and maintenance of catch basins and structures



Way Forward

- Review the Recommendations with Staff and with Council
- Integrate the report recommendations with
 - Planning and Development
 - Transportation Master Plan
 - Active Transportation Plan
 - Parks Plan / Beautification Plan
- Incorporate the key priorities / projects into the Capital Improvement Plan





Berwick Stormwater Management Plan

Final Report



251083.00 • April 2026

Discussion