Riverwalk:
Downtown Etobicoke Creek
Revitalization Project

Ontario Flood Risk
Management
Workshop 2018

Laurian Farrell
Brampton.ca/riverwalk
Where is it?
What is the Riverwalk?

Flood Protection

Unlock Development Potential

Identity/Placemaking
Etobicoke Creek By-Pass Channel
Why do we need it?

Historic Photos circa 1948
Brampton's Worst and Last Flood – 1948

Looking north from about the centre section of Main Street North to the C.N.R. bridge we get a good view of the flood waters in that area, showing the extreme depth of the river as it flowed beneath the railway bridge.

Another view of the 1948 flood experience taken further south in front of St. Paul's Church and the garage opposite, shows the size of the immense blocks of ice that came floating down and the hazardous location of the vehicles in its path.
• Constructed in **1952** by the Etobicoke & Mimico Creek Conservation Authority

• **600 m** long trapezoidal concrete lined channel

• **22m** wide (top width)

• Built to convey the **100 year storm**

**Downtown Brampton By-pass Channel**
Why does Brampton flood?

- Minimal Stormwater Controls (2yr storm only)
- Highly Urbanized (landuse)
- Large Upstream Contributing Drainage Area

6760 ha (67.6 sq km)
Special Policy Area Amendment
(approved by Province in April 2014)

- Updated boundary of the Special Policy Area to reflect current floodline mapping
- Established technical requirements for new development
- Focused residential growth at edge of floodplain
- Established permissions throughout SPA
- Restricted certain sensitive uses (e.g., institutional, emergency services, uses associated with hazardous substances)
Vibrant – Resilient - Sustainable

725,000
Population by 2031

2nd
Fastest growing municipality in Canada
Downtown Etobicoke Creek Revitalization Study

1. CONNECT
   - The Downtown to the River
     - Existing Trails with New Trails
     - Rosales Park with a Larger Open Space Network
     - Pedestrians to the River with New, Continuous Trail & Numerous Entry Points
     - Citizens to Participate in Watershed Health
     - People to Each Other in Positive Public Spaces

2. DISCOVER
   - The Revitalized Etobicoke Creek as a Major Amenity
   - New Parks & Trails with Flexible Programming
   - Urbanized Built Form Edges Along Streets & Open Spaces

3. CATALYZE
   - Development facing the river
     - Downtown development by addressing the Special Policy Area
     - Placemaking with a new identity for the River & Downtown

4. PROTECT
   - The Downtown from Flooding
     - Open Green Space
     - Natural Systems
     - Cultural Heritage Resources

5. GREEN
   - Flood Protection Infrastructure as Open Space Amenity
     - Built Form & Open Space with Sustainable Design Including Green Roofs, Integrated Natural Systems
     - The River’s Edge with Native Habitat Planting

6. FRAME
   - Rosales Park with Urbanized, Activated Built Form Edge
     - Pedestrian Priority Streets Along the River’s Edge Near Queen Street

7. ACTIVATE
   - Streets With Podium Basa, Low Rise, Mid-Rise & Integration of Heritage Buildings
     - Park Edges with Urbanized Built Form with Cafés, Patios & Front Doors on the Park
     - The River with a New Pedestrian Experience
     - The River bank ecology with enhanced greening

8. URBANIZE
   - Built Form Adjacent to the River and Parks
     - Complete Streets that put Pedestrians First
     - Parks with Activated Edges and Flexible Uses

9. ENHANCE
   - Etobicoke Creek as a Public Amenity Space
     - Urban Ecology & Sustainability Along River & Trails (Habitat Planting, Urban Canopy, Permeability)
     - Rosales Park as a Recreated Open Space
     - HACE Initiative with Performance & Gathering Spaces in Parks
     - Multi-Modal Pedestrian Transportation Access
     - The Identity of Brampton

10. DIVERSIFY
    - Programming in Parks to Allow for Flexible Uses
      - Built Form for Mixed-Use Adjacent to the River
      - Mix of Public and Private Uses
      - Habitat with Enhanced Urban Canopy and Riparian planting
# Downtown Etobicoke Creek Revitalization Study

## Part 1

### Technical Flood Mitigation Feasibility Summary

TRCA/AMEC

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### Table 1: Comparison of Alternative Performance and Capital Costs

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Flood Mechanism Addressed</th>
<th>Reduction in Regional Storm Spill Flow (%)</th>
<th>Reduction in SPA Flood Depths (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A2: Rosalea Park Flood Berm</td>
<td>Spill</td>
<td>88</td>
<td>0.3 - 1.7</td>
</tr>
<tr>
<td>A3: Flood Protection Landform</td>
<td>Spill</td>
<td>88</td>
<td>0.3 - 1.7</td>
</tr>
<tr>
<td>A5: Lower By-pass Channel</td>
<td>Spill</td>
<td>90</td>
<td>0.3 - 1.8</td>
</tr>
<tr>
<td>A7: Downstream Channel Improvements</td>
<td>Backwater</td>
<td>0</td>
<td>0.5 (Backwater only)</td>
</tr>
<tr>
<td>A8: Tailwater Flood Protection Landform</td>
<td>Backwater</td>
<td>0</td>
<td>Requires further study (Backwater only)</td>
</tr>
<tr>
<td>A9: Clarence Street Bridge Improvements</td>
<td>Backwater</td>
<td>0</td>
<td>0.17 (Backwater only)</td>
</tr>
<tr>
<td>Combination: A3 + A5</td>
<td>Spill</td>
<td>100 (Spill eliminated)</td>
<td>Only backwater flooding remains</td>
</tr>
</tbody>
</table>
Phase 2 Study

**Integrated Flood Study**
- Assess storm sewer capacity and overland flood potential
- Refine list of flood mitigation options
- Identify 3-4 flood mitigation options for future Environmental Assessment

**Urban Design and Land Use**
- Further develop design concepts based on new technical data
- Assess environmental, social and economic impacts of alternatives

- Upstream drainage
- Overland Flow
- Flow on Roadways
- Storm Sewers
TAKE CARE OF WHERE YOU LIVE

SAFEGUARDING AGAINST FLOOD RISKS
Environmental Assessment (EA)

ENVIRONMENTAL BENEFITS
- Resilient/flood protected, enhanced valley system, revitalized ecology.

SOCIAL BENEFITS
- Bringing people back to the river, new public realm, place making.

ECONOMIC BENEFITS
- Jobs, housing units, new residents, income, investments.

WE NEED YOU AS OUR PARTNER
ALIGNED OBJECTIVES

RESILIENCY
Address climate change and eliminate existing flood risk. Promote sustainable development while creating safe and healthy communities.

SUSTAINABLE MOBILITY
Promote higher order transit, active transportation, and transit-supported development.

URBAN GROWTH & ECONOMIC DEVELOPMENT
Create a vibrant downtown by providing a catalyst to intensify housing, commercial and office opportunities.
Liveability
Resilience
Sustainability
Healthy Development
Intensification
Climate Change Mitigation
Sustainable mobility
Placemaking
Flood control
Redevelopment
Strong public realm
Revitalization
Public infrastructure
Sustainable mobility
Climate Change Mitigation
Placemaking
Intensification
Thank You

www.brampton.ca/riverwalk