



**Credit Valley  
Conservation**  
inspired by nature

# **Annual Report and Mid-Year Update**

To Peel Regional Council

June 27, 2019

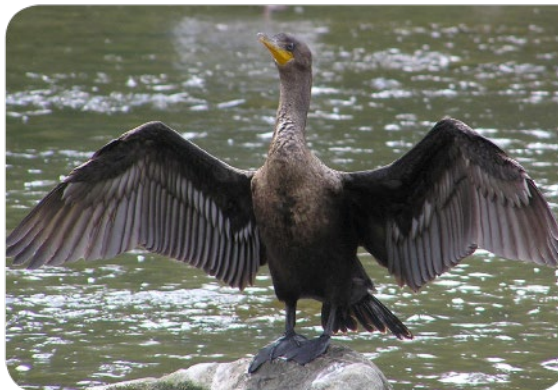
By Deborah Martin-Downs  
Chief Administrative Officer



## Outline

- Peel's Term of Council Priorities
- 2018-19 Program updates
- 2020 Budget
- Pressures

# Priority – Build Environmental Resilience



# 2018 General Levy Projects

**INPUT**
**\$8.3M**

## ACTIVITIES

- Land Acquisition Program
- Permit Applications
- Municipal Plan Review
- Conservation Area Management Plans
- Integrated Watershed Monitoring Program (IWMP)
- Watershed Naturalization and Reforestation
- Flood Management Program

## OUTPUTS

- Managing Cheltenham Badlands raising CVC's current land holdings to 62 properties & nearly 7,100 acres
- Total of 579 development permits issued, planning applications reviewed & Environmental Assessments submitted for CVC review
- Belfountain Conservation Area Management Plan received NEC endorsement & CVC Board approval
- Monitored 72 stream sites, 30 forest sites, 18 wetland sites, 14 groundwater sites
- Planted 31,000+ trees & shrubs across watershed
- Issued 12 watershed safety & flood outlook statements
- Substantially completed floodplain mapping for the majority of Mississauga tributaries (pending) and Caledon Creek

## OUTCOMES

- Protecting land in perpetuity.
- New development & redevelopment that successfully integrates natural & built elements.
- Conservation areas that provide accessible natural spaces, unique environmental experiences & an enduring love for our beautiful environment.
- Policy, practice & guidelines informed by science.
- Monitoring data that informs decisions, identifies trends & predicts emerging issues in environmental health.
- Increased canopy cover, habitat, carbon storage; improved air quality and heat resilience.





## Resilience Through Partnerships – Cheltenham Badlands

# 2018 Watershed Projects

**INPUT**
**\$2.3M**

## ACTIVITIES

- Watershed Health Reporting
- Headwaters Stewardship
- Natural Heritage Systems Science
- Natural Heritage Inventory
- Leaders for Clean Water, Headwaters
- Peel Rural Water Quality
- Restoration & Nursery Operations
- Ecosystem Goods & Services

## OUTPUTS

- Supported 42 private land & stewardship projects
- Biological inventory of 1,600 acres of natural area
- inventory of 250 ha vegetation community & species and breeding bird species at 290 ha of natural areas
- Inventory bat species occurrence along 124 km of watershed roads
- Monitoring & knowledge transfer regarding stormwater facilities
- Leading development of Conservation Authority Natural Heritage System for Caledon & Peel
- Propagation of 78,000 units for planting projects
- 900 m of stream restored
- 15 aquatic & wetland projects monitored
- Expanded model assessing contribution of natural areas to stormwater services in Peel

## OUTCOMES

- Plans & priorities for natural resources protection/restoration
- Development & sharing of scientific knowledge for improved decision making & inform policy
- Improved understanding of aquatic & terrestrial features to inform decision making & action
- Increased awareness & on-the-ground action by landowners to protect & enhance watershed health
- Development & sharing of scientific knowledge for improved decision making
- Improved public awareness & engagement
- Enhanced stormwater management
- Improvement of urban & rural landscapes
- Enhanced understanding of the value of municipal services provided by natural features to support Asset Management and Planning



## Restoring More Resilient Streams



# 2018 Peel Climate Change

**INPUT**
**\$9.6M**

\*Does not include \$477K for EAB

## ACTIVITIES

- Climate Change Vulnerability Assessment
- Flood Forecasting & Warning
- Real Time Water Quality
- Infrastructure, Performance & Risk Assessment
- Education/CYC
- Technologies (including LID)
- Rural Farm & Non-Farm Stewardship
- Urban Outreach & Restoration
- Water & Climate Change Risk Sciences
- Credit River Water Management Strategy Implementation

## OUTPUTS

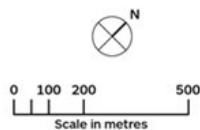
- maintenance of 31 stream flow, 11 water quality, 5 climate & 13 rain real time gauges
- Ongoing technical support to 66 partners for LID Implementation
- Ongoing LID monitoring of 11 sites, maintenance inspection of 12 sites
- Restoration: plantings (38k), stream (205m), wetland (0.2ha), 95 invasive species projects, grasslands (28 ha.)
- Participation in Peel Community Climate Change Partnership & lead the Flood Resiliency Strategy
- Innovative Tool Development to support municipal stormwater adaptation
- Enhanced flood forecasting tools
- New guidelines & training materials to aid contractors in integrating LID measures with Peel's Fusion Landscaping
- 51,000+ education program participants & 4,500+ volunteers implementing over 265 community projects
- 1,600+ engaged landowners (Projects: 13 corporate, 206 urban and 19 rural)
- Brampton SNAP action planning & implementation of 4 early action projects

## OUTCOMES

- Improved human health & public safety, with fewer personal property losses.
- Sustainable surface water & groundwater, healthy aquatic & terrestrial ecosystems & protection for rare, threatened & endangered species.
- Increased jobs, productivity and/or revenue in agriculture, commerce and tourism.
- Targeted tree planting in priority urban neighbourhoods to mitigate heat vulnerability.
- Less damage to storm and sanitary systems, dams, channel works, roads & crossings.
- Ecosystem resilience to climate change & management recommendations for CVC's partners.
- Identified priority planting areas for improved ecosystem benefits.
- Enhanced climate change awareness & climate resiliency among residents who take action on-the-ground.
- Residents who understand the natural environment as a point of pride in our communities & a vital source of personal well-being & happiness.



- Existing Urban Forest
- Parks & Schoolground Greening
- Residential Green Corridors
- Shady Paths & Playgrounds
- Priority Projects
- Corporate, Commercial, High Rise Green Retrofits
- Residential Cool Water Zones
- Fletchers Creek Trail (existing)
- Fletchers Creek (existing)



# Fletcher's Creek SNAP

## Resilient Green Infrastructure

- Mississauga Road LID constructed in 2018; monitoring established
- Target for the site is treating 90% of stormwater (25mm), resulting in downstream protection
- Similar designs monitored by CVC demonstrate success in meeting design targets



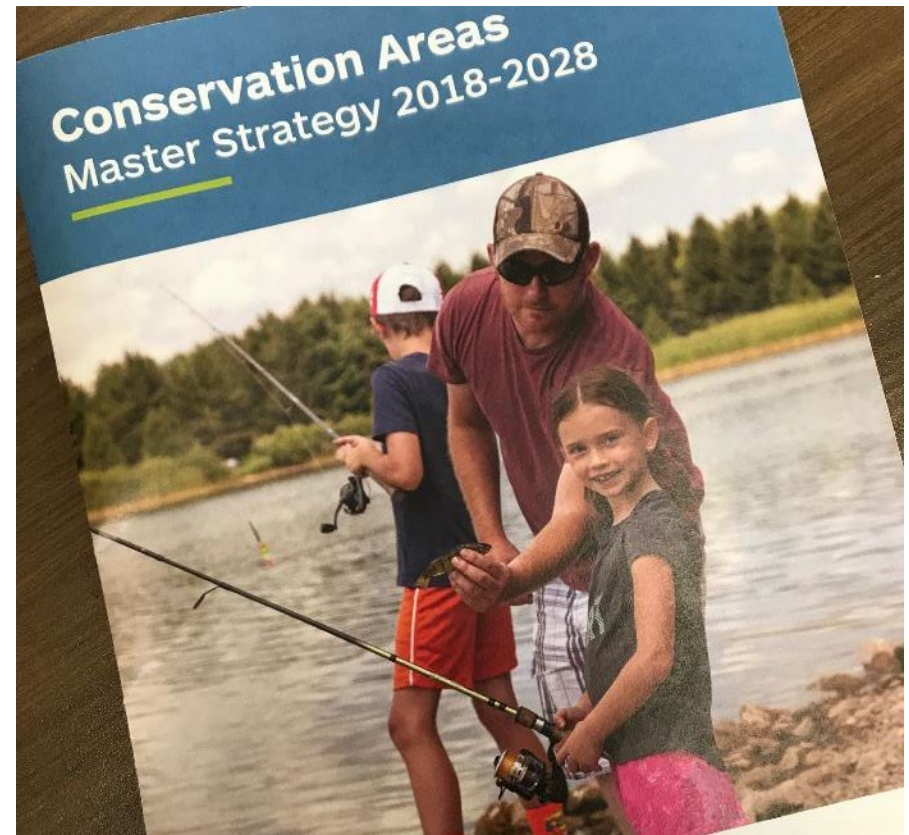
# 2018 Infrastructure Projects

**INPUT**
**\$2.9M**

ACTIVITIES	OUTPUTS	OUTCOMES
<ul style="list-style-type: none"> <li>• Infrastructure/ Major Maintenance, CAs &amp; Dams</li> <li>• Flood Risk Mapping</li> <li>• Core 10 (Conservation Area Lands) Projects</li> <li>• Enforcement Program</li> <li>• Corporate Initiatives</li> </ul>	<ul style="list-style-type: none"> <li>• Completed hydrologic modelling and completed/undertaking flood hazard and risk mapping for 14 Lake Ontario tributaries</li> <li>• Undertaking assessment of flood risk for the Credit River watershed upstream of Mississauga</li> <li>• Work at Island Lake Dam to meet current design requirements</li> <li>• Detailed design of Belfountain Dam and Head Pond EA preferred option</li> <li>• Boardwalk replacements at Rattray Marsh, completion of Warwick Conservation Centre and partnering with OHT on Badlands</li> <li>• Corporate Asset Management Plan work with Peel Staff</li> <li>• Protect lands through inspection and enforcement patrols</li> <li>• Digital transformation deliverables continue including gauge network (WISKI) upgrade, financial system upgrades and network improvements</li> </ul>	<ul style="list-style-type: none"> <li>• Enhanced tools for flood forecasting and warning</li> <li>• Improving public safety</li> <li>• Improved conservation area visitor experiences through ongoing state of good repair investments and partnerships</li> <li>• Improved decision making and budget forecasting for our asset management needs</li> <li>• Projects are advanced through the use of alternative funding sources</li> <li>• Reduced liability exposure with regular monitoring, enforcement and safety checks</li> <li>• Improved operational efficiency through technology</li> </ul>

## Well-Managed Conservation Areas

- Conservation Areas Master Strategy approved by CVC Board
- Belfountain Management Plan approved by NEC
- CA revenue above target – exceeding \$1 million
- Total number of visits in 2018 estimated to be 741,000



# Opening Warwick Conservation Centre June 14, 2019



## 2020 Forecast from 2019 Budget – 2020 Budget In Progress

<b>Peel Portion (\$ ,000)</b>	<b>2020 Forecast As presented January 2019</b>	<b>2020 Adjusted In progress as of June 2019</b>	<b>2020 ** Impact Section 39 Reduction</b>	<b>2020 Budget Section 39 Reduction</b>	<b>Future Forecast</b>
General Levy	9,012 4.94%	9,100 5.96%	82	9,182 6.91%	?
Special Levy	16,589 8.50%	15,730 2.88%		15,730 2.88%	
<b>Total</b>	<b>25,601 7.22%</b>	<b>24,829 3.99%</b>	<b>82</b>	<b>24,911 4.33%</b>	<b>?</b>

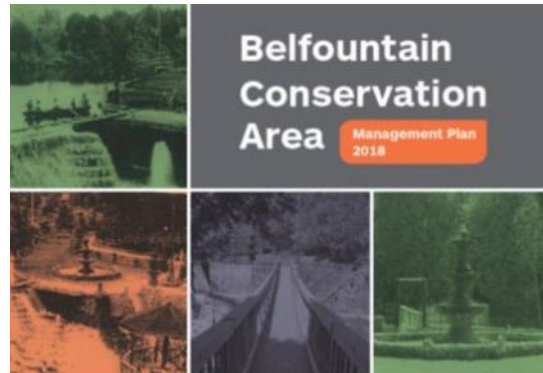
\*\* does not include Source Water Protection

## 2020 Budget – Current Status NOTES

- Draft budget at **3.99%** (as of June 17, 2019)
- Reduction of **\$200K** currently required to meet Peel target
- **\$90K** in lost Section 39 funding (Provincial Base) included in draft budget (Peel's portion = \$82K)
- 2020 draft budget includes a reduction of 500k in capital for Belfountain
- Does not include Source Water Protection funding of **~\$225K**

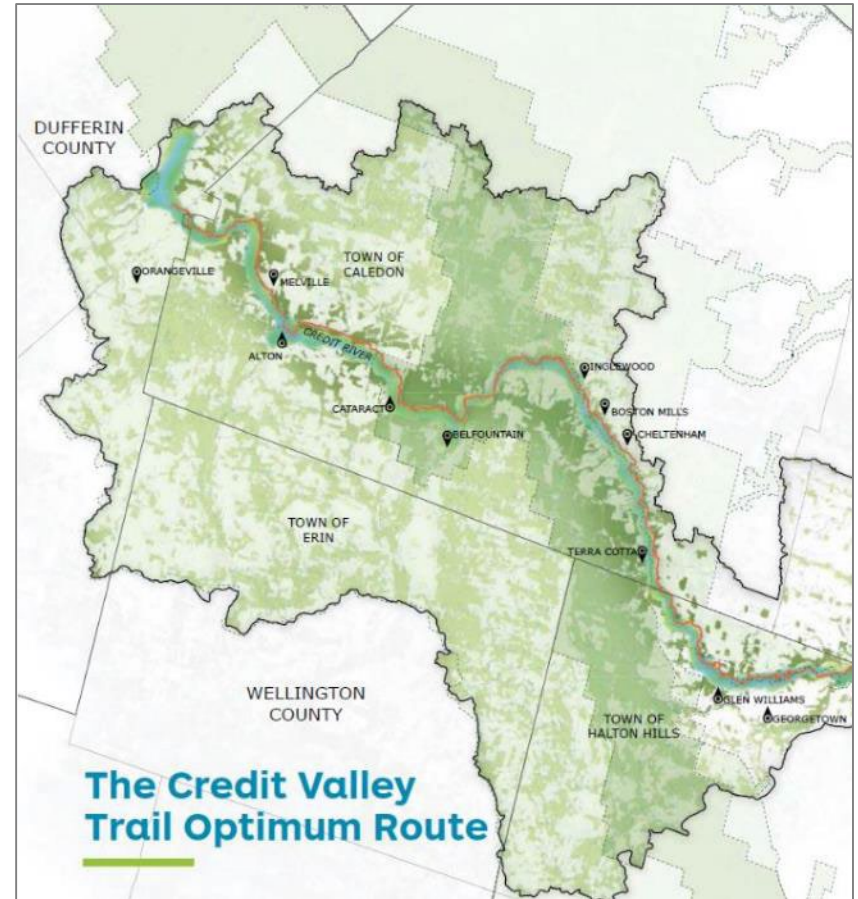


# Pressures



A Strategy for the  
**Credit Valley Trail**

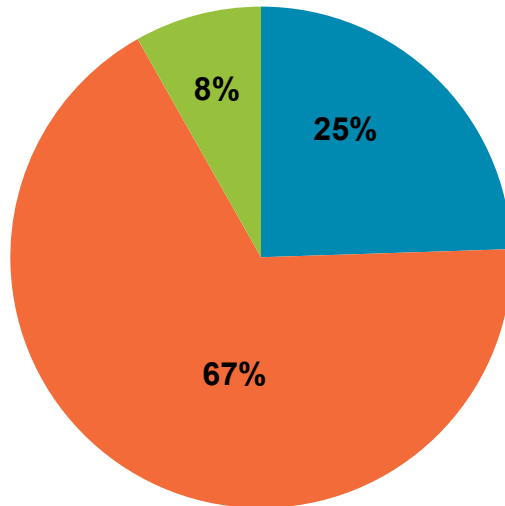
2017



## Pressure – Credit Valley Trail

# Climate Risk Methodology

% of Expenditure



2019 PROJECT CLASSIFICATION

■ Act ■ Invest ■ Sustain

<b>ACT</b>		<b>\$2,564,246</b>
<b># of Projects</b>	<p><b>Respond to a life Threatening event</b> or one that acutely compromises human health or safety</p> <p><b>Respond to an immediate impact</b> that requires action with a high level of urgency (but not necessarily life threatening)</p> <p><b>Enhance</b> a legislative requirement under the CA Act</p> <p><b>Implement</b> direction or resolution from a municipal council or approved by TOCP/CA Board or aligned to council strategic priorities or targets</p> <p><b>Maximize</b> emergency preparedness</p>	
<b>4</b>		
<b>INVEST</b>		<b>\$7,050,493</b>
<b># of Projects</b>	<p><b>Produce</b> a local measurable benefit through implementation; likely increase effectiveness Over long-term and/or with larger scale application</p> <p><b>Generate</b> Knowledge to fill gaps or take advantage of emerging science to better manage imminent/identified risks that currently lack innovation or technical tools to resolve in the short term</p> <p><b>Address</b> consequences or conditions that are becoming worse or increasing in financial or social costs</p> <p><b>Elevate</b> awareness among residents, business, stakeholders and youth to drive attitudinal change with respect to human impacts on climate and the environment</p>	
<b>14</b>		
<b>SUSTAIN</b>		<b>\$858,468</b>
<b># of Projects</b>	<p><b>Maintain</b> watershed resilience, achieve outcomes and demonstrate effectiveness using current best practices</p> <p><b>Anticipate</b> a potential impact, a shift in trend or to flag and emerging issue</p>	
<b>2</b>		

## 3-year Forecast from 2019 Budget

Peel Portion (\$M)	2019 Budget	2020 Forecast	2021 Forecast	2022 Forecast
General Levy	8,588 3.59%	9,012 4.94%	9,320 3.41%	9,626 3.29%
Special Levy	15,289 3.73%	16,589 8.50%	17,726 6.86%	18,529 4.53%
<b>Sub-Total</b>	<b>23,877</b> <b>3.68%</b>	<b>25,601</b> <b>7.22%</b>	<b>27,046</b> <b>5.64%</b>	<b>28,155</b> <b>4.10%</b>
One-Time Special Levy: EAB	460 -3.54%	420 -8.70%	420 0.00%	400 -4.76%
<b>TOTAL</b>	<b>24,337</b> <b>3.53%</b>	<b>26,021</b> <b>6.92%</b>	<b>27,466</b> <b>5.55%</b>	<b>28,555</b> <b>3.97%</b>

## 2020 Provincial Funding Impact

Grant Program	2020 Forecast Gross Expenditures	2020 Forecast Provincial Funding	2020 Revised Forecast Provincial Funding	Peel's Portion of Change in 2020 Forecast Provincial Funding	Type of Provincial Change
	(\$000's)	(\$000's)	(\$000's)	(\$000's)	
<b>Sec 39</b>	\$9,012	185	96	82	Reduction

## Revised 3-Year Forecast

Peel Portion (\$M)	2019 Approved Budget	2020 Revised Forecast	2021 Revised Forecast	2022 Revised Forecast
General Levy	8,588 3.59%	9,095 5.90%	9,402 3.38%	9,708 3.25%
Special Levy	15,289 3.73%	16,589 8.50%	17,726 6.86%	18,529 4.53%
<b>Sub-Total</b>	<b>23,877</b> <b>3.68%</b>	<b>25,683</b> <b>7.56%</b>	<b>27,128</b> <b>5.62%</b>	<b>28,238</b> <b>4.09%</b>
One-Time Special Levy: EAB	460 -3.54%	420 -8.70%	420 0.00%	400 -4.76%
<b>TOTAL</b>	<b>24,337</b> <b>3.53%</b>	<b>26,103</b> <b>7.26%</b>	<b>27,548</b> <b>5.53%</b>	<b>28,638</b> <b>3.96%</b>

## Reduction Required to Achieve Peel's 2020 Target

Peel Portion (\$M)	2019 Budget \$	2020 Revised Forecast \$	2020 Peel Target \$	Reduction to Meet Target	
				\$	%
<b>General Levy</b>	8,588 3.59%	9,095 5.90%	8,880 3.40%	215	2.36%
<b>Special Levy</b>	15,289 3.73%	16,589 8.50%	15,809 3.40%	780	4.70%
<b>Sub-total</b>	<b>23,877</b> <b>3.68%</b>	<b>25,683</b> <b>7.56%</b>	<b>24,689</b> <b>3.40%</b>	<b>994</b>	<b>3.87%</b>
<b>One-Time Special Levy: EAB</b>	460 -3.54%	420 -8.70%	420 -8.70%	0	0%
<b>TOTAL</b>	<b>24,337</b> <b>3.53%</b>	<b>26,103</b> <b>7.26%</b>	<b>25,109</b> <b>3.17%</b>	<b>994</b>	<b>3.81%</b>

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