



**Medway Valley Heritage Forest ESA (South)  
Conservation Master Plan  
Planning and Environment Committee**

April 16, 2018




**Location Map**



Medway Valley Heritage Forest ESA (south)




**Conservation Master Plan (CMP) – Council’s Strategic Plan**

The Medway ESA CMP is one of Council’s Strategic Priorities under:  
“Building a Sustainable City – Strong and Healthy Environment”





And linked to:  
“Strengthening our Community – Healthy and safe and accessible city”






**London’s Official Plan - Key Directions  
Policy 58 - 4**

**“Protect and Enhance the health of our Natural Heritage System”**

**London’s Official Plan -Key Directions  
Policy 62 - 11**

**“Ensure that all the planning we do is in accordance with the Accessibility for Ontarians with Disabilities Act, so that all of the elements of our city are accessible for everyone.”**

**London’s Official Plan - Policy 1304**

**Why is Natural Heritage Important to Our Future?  
...natural heritage features and areas that form the Natural Heritage System, shall be protected and managed**

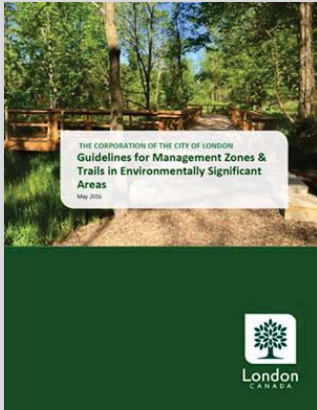
to improve their ecological integrity

and

to provide opportunities for public use where appropriate.




## Guidelines



## BACKGROUND

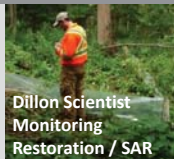
### CONSERVATION MASTER PLAN PROCESS 2013-2018

- PHASE 1:** Community Engagement and Participation ✓  
 Life Science Inventory and Evaluation ✓  
 Boundary Delineation ✓  
 Application of Management Zones & Review of Existing Trails ✓  
 Identifying Management Issues\* ✓
- PHASE 2:** Community Engagement and Participation ✓  
 Goals, Objectives, Recommendations ✓  
 Ecological Protection, Enhancement & Restoration ✓  
 Trail Planning & Design Process ✓  
 Priorities for Implementation ✓  
**Final Conservation Master Plan** ✓

\*2014 Ecological Restoration began to protect False Rue-anemone, SAR etc.

## Environmental Management Strategy: Restoration

- ✓ More than 50% of Restoration work is completed and or in process and monitored, all Top/High Priority areas to protect SAR implemented and monitored 2014-2018.
- ✓ CMP includes restoration & monitoring for all informal trails.
- ✓ City / ESA Team successfully coordinated majority of restoration in **less than 4 years**, remainder will be addressed.
- ✓ City / Dillon & UTRCA recognized for innovative work, SAR habitat protection, contributions to [Federal Recovery Strategy for the False Rue-anemone \(\*Enemion biternatum\*\) in Canada](#)
- ✓ City recognized with **Ontario Nature Award 2016** for leadership, exceptional ESA habitat protection
- ✓ City recognized with **Service to the Environment Award 2017** for Guidelines for Management Zones and Trails in ESAs
- ✓ Ontario Invasive Plant Council identifies **City of London** as a **provincial leader in Invasive Species Management**



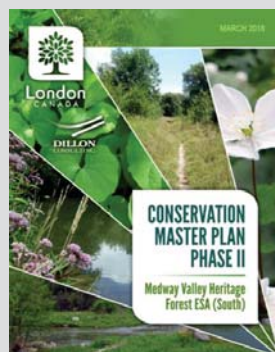
## Accessibility for Ontarians with Disabilities Act (AODA)

AS OF JANUARY 1, 2016

**Newly constructed or redeveloped recreational trails that the City intends to maintain shall meet the accessibility standards**

## Conservation Master Plan – Key Issues

- Environmental Protection
- False Rue-Anemone
- Increased Use
- Accessibility for Ontarians with Disabilities Act (AODA)
- Details of the Trail System



## Guidelines for Management Zones and Trails in ESAs

Guidelines Approved by Council May 2016:

- Endorsed by Trails Focus Group which included members of the Medway ESA CMP Local Advisory Committee (LAC):
  - EEPAC, ACCAC, Nature London, UTRCA;
  - Adopt an ESA Groups: Friends of Medway Creek; and, Orchard Park/ Sherwood Forest Ratepayers.
- City of London received external recognition for the Guidelines from the City of Toronto, and, an [Award for Service to the Environment](#) by the Ontario Association of Landscape Architects
- Guidelines based on the latest science to ensure protection of ESA ecosystems & meet AODA req.



Medway ESA CMP Complies with and follows process in Council approved Guidelines

## 5 Guiding Principles of Conservation Master Plan – Guidelines for Management Zones and Trails in ESAs

- ✓ **Natural features and ecological functions** for which the ESA has been identified shall be protected.
- ✓ **The ecological integrity and ecosystem health of the ESA shall have priority in any use or design related decision.**
- ✓ **A properly designed and implemented trail system appropriate to specific management zones** and reflecting sensitivity of the natural features will be implemented to achieve the primary objective of protection and the secondary objective of providing suitable recreational and educational opportunities.
- ✓ **The community will be engaged** in natural areas protection and the trail planning process to build awareness, foster education, and encourage participation in order to increase the capacity for creating a conservation culture that promotes natural areas as a common good and conservation as a collective responsibility.
- ✓ **Enjoyable, safe, accessible trails** for recreation appropriate in an ESA and learning environment **will be permitted in accordance with** any/all recognized **accessibility legislation such as the Accessibility for Ontarians with Disabilities Act, (AODA)**, best practices and the above principles.



## Management Zones

### Nature Reserve (NR) Management Zone

- Level 1 trails (e.g. dirt, wood chips, stepping stones) and structures (e.g. boardwalks, bridges, stairways) may be permitted in NR Zones to reduce impacts to significant ecological features and increase the sustainability of the trail system in the ESA. These are areas where **exceptions to making trails accessible would apply** as such activities may have a negative effect on water, fish, wildlife, plants, invertebrates, species at risk, ecological integrity or natural heritage values.



Medway ESA  
CMP Complies  
with Council  
approved  
Guidelines

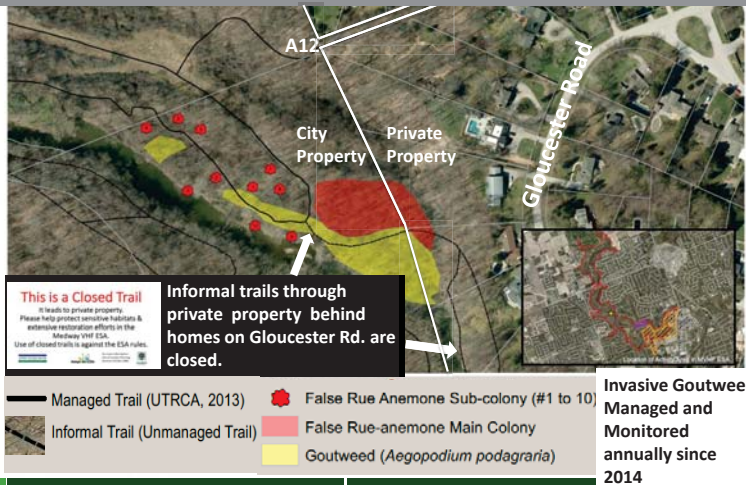
### Natural Environment (NE) Management Zone

- Level 1 and Level 2 trails may be located in NE Zones where it can be demonstrated that the trail will not result in negative impact to the adjacent ecological features and functions of the ESA. Trails that comply with the Guidelines in NE zones can/must be made accessible as per AODA. *Especially* when Utility Overlay for existing sewers are present.

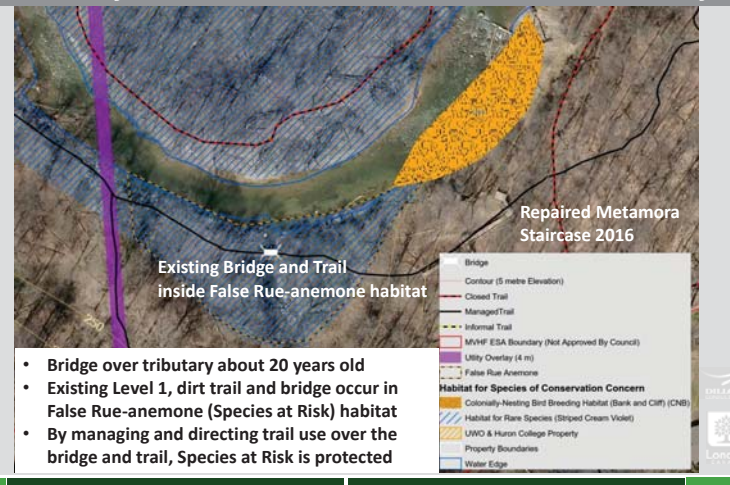
CMP and Sustainable Trail Plan complies with AODA & Guidelines



## Protection of False Rue-anemone



## Existing Bridge and Trail near Metamora Cres. Access 17 Currently Protects False Rue-anemone Habitat in Medway S.



## Ecologist Review Supporting CMP for Protection of SAR

The Ecologist who authored the initial draft of the [Recovery Strategy for the False Rue-anemone \(\*Emion biternatum\*\) in Canada, 2017](#) reviewed the CMP (letter in Appendix D of staff report in PEC agenda) and confirms:

- “I have reviewed relevant sections and plans within the CMP and I believe it is consistent with the actions proposed in the recovery strategy for this federally Threatened plant species.”
- “In my opinion, the Medway ESA CMP and supporting work by the City of London will help to protect and restore the False Rue-anemone population within this densely populated urban area.”

Ecologist, Holly Bickerton who authored the review of the CMP is a current member of the:

- [Committee on the Status of Species at Risk in Ontario \(COSSARO\)](#)
- [Field Botanists of Ontario](#), and, [Ontario Invasive Plant Council](#)



## Trail Planning for CMP and AODA in Guidelines

### Section 2.1 and 2.3: Policy for Trail Planning and Design

- Enjoyable, safe, accessible trails for recreation appropriate in an ESA learning environment will be permitted in accordance with recognized accessibility legislation (such as the Accessibility for Ontarians with Disabilities Act, 2005 (AODA), best practices and the above principles).
- Trails to permit access for persons with disabilities, consistent with these guiding principles and AODA requirements, will be provided where this can be achieved while protecting the ecological integrity and ecosystem health of the ESA.



Medway ESA  
CMP Complies  
with Council  
approved  
Guidelines

### Section 5.5.2: Utility Overlay

- Where maintenance access is required, trails should be located along the same route to minimize impacts to the surrounding ESA while achieving a social benefit by designing the trails to accommodate persons with disabilities wherever possible.

### Section 7.1: Design and Construction - Trails

- Design and Maintenance Standards: Where the trail is deemed accessible, the trail in its entirety shall meet AODA recreational trail surface requirements for both firmness and stability.



## 5 Year Community Engagement Process 2013-2018

- Council launched Ph. 2 Medway CMP Feb/17
- Met with EEPAC 7 times
- Met with ACCAC 5 times
- Letters to all homes (1860) within 200m of entire Medway ESA sent 3 times in 2017 (exceeded std. 120 meter notification limit)
- 7 Notices in Londoner 2013-2018
- Met with 18 member, Local Advisory Committee (LAC) 6 times, Minutes in CMP
- Online CMP Survey June 2017 – “Ideas, Issues, Opportunities, and Observations”
- 4 Open Houses (Phase 1 & 2 in 2013-2017)
- Presentation to OPSF Ratepayers 2017 AGM
- 767 comments 2017-2018
- Process paused 2015-2016 to update Council approved Guidelines for MZs and Trails, 2016



Open House #1 - June 1, 2017



Open House #2 - Nov. 15, 2017



## Summary of Community Feedback 2017-2018

### General Agreement on these parts of CMP:

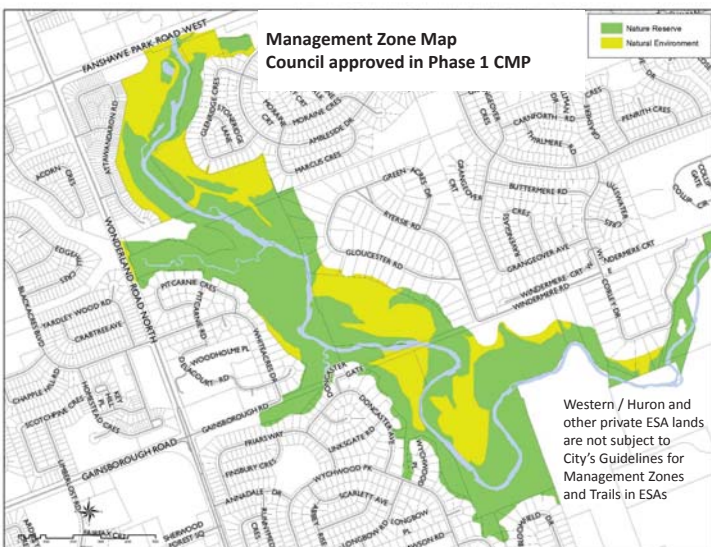
- The ESA is a unique feature; protecting and restoring/maintaining ecological integrity is the first priority and goal of CMP
- Continue successful work on invasive species removal, restoration and naturalization as per CMP
- Increase enforcement of by-laws and ESA rules
- Improvements of trails over muddy, icy, wet areas of trail system
- Monitoring - continue and enhance as per CMP

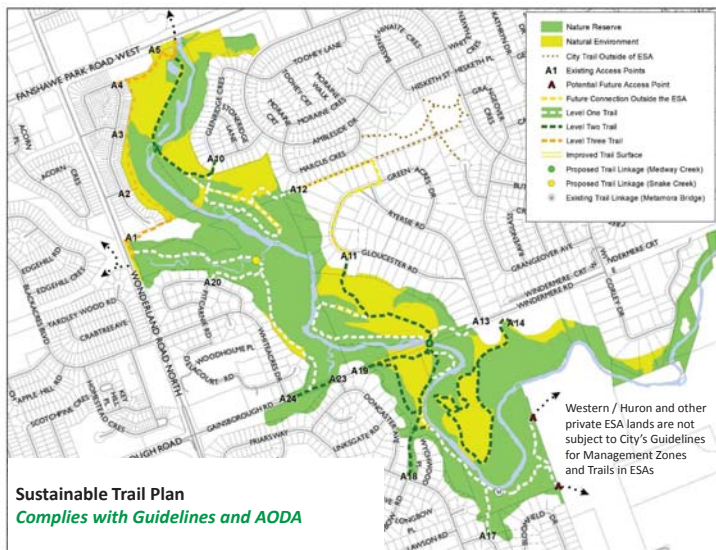
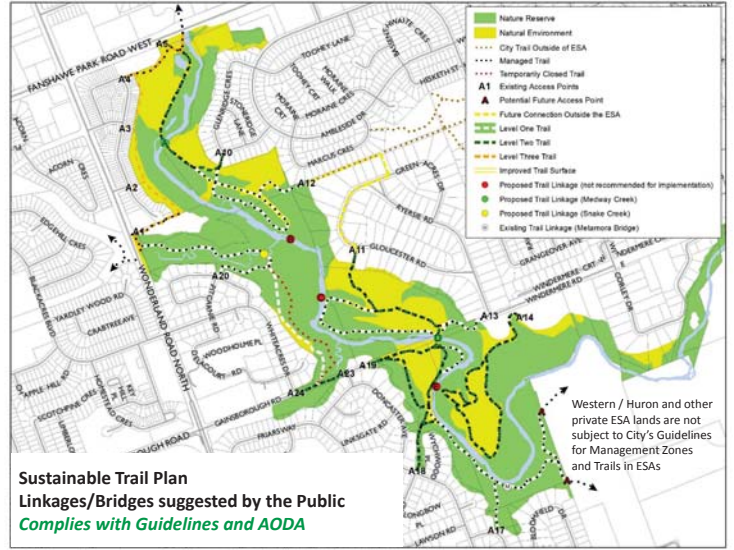
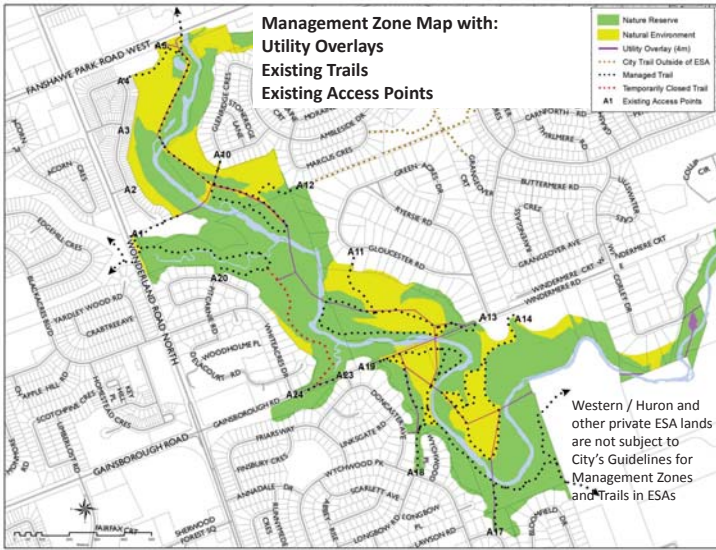


Medway ESA  
CMP Complies  
with Council  
approved  
Guidelines

### Varied Opinions on these parts of CMP:

- Amount of Connectivity of trails in the ESA (i.e. linkages, bridges, and connections outside the ESA etc. suggested by the public)
- Hardening of trails to provide inclusive access to nature consistent with the Guidelines to comply with AODA requirements and for protection of ESA ecosystems
- CMP complies with Council's Guidelines for MZ and Trail in ESAs (for protection of ESA ecosystems and inclusive trail use to meet AODA requirements)





## Trail Types

- **Level 1 Trail**
- **Level 2 Trails (Accessible):**



Existing Sewer Manhole

**"Dirt" surface, up to 1 meter wide (about 3 feet wide)**




**Granular surface up to 2 meters wide / (about 6 feet wide)**



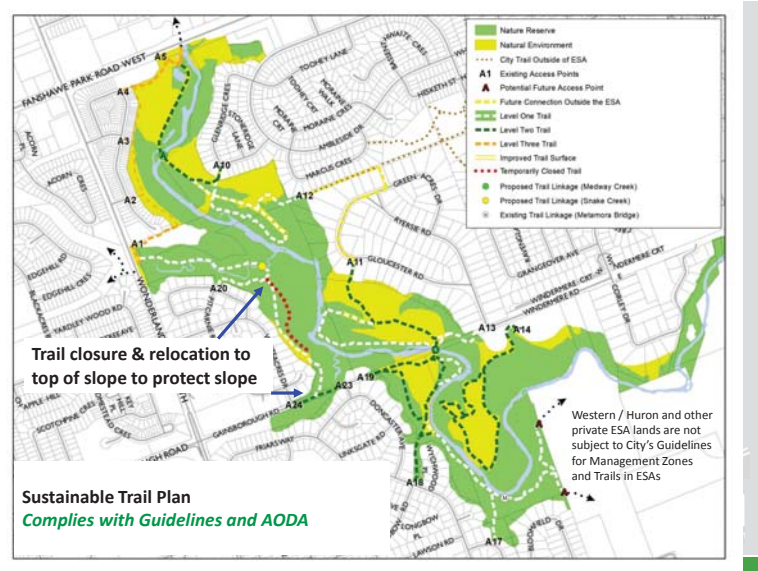
**Asphalt surface up to 2 meters wide (about 6 feet wide)**

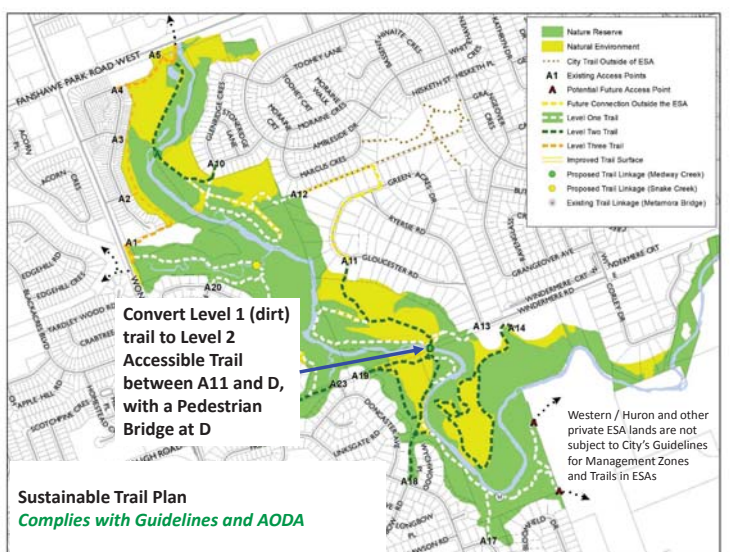
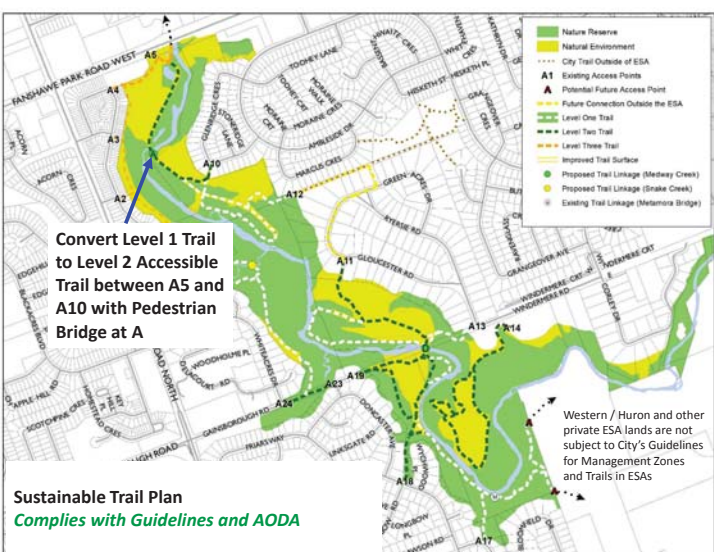
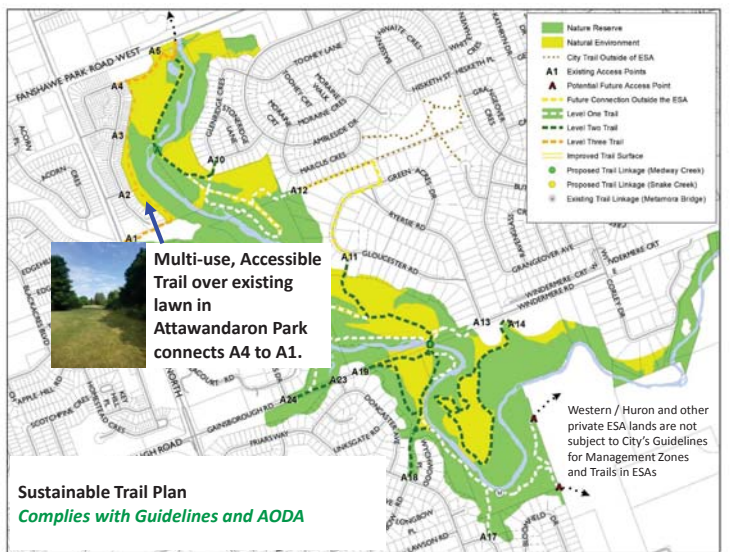
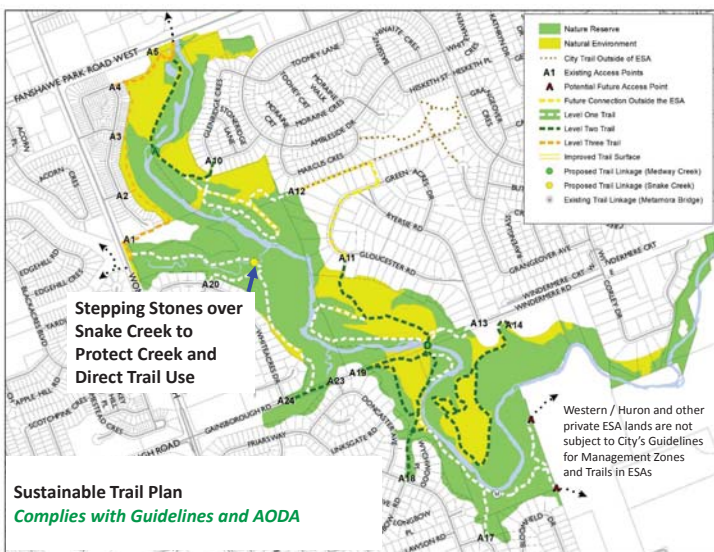
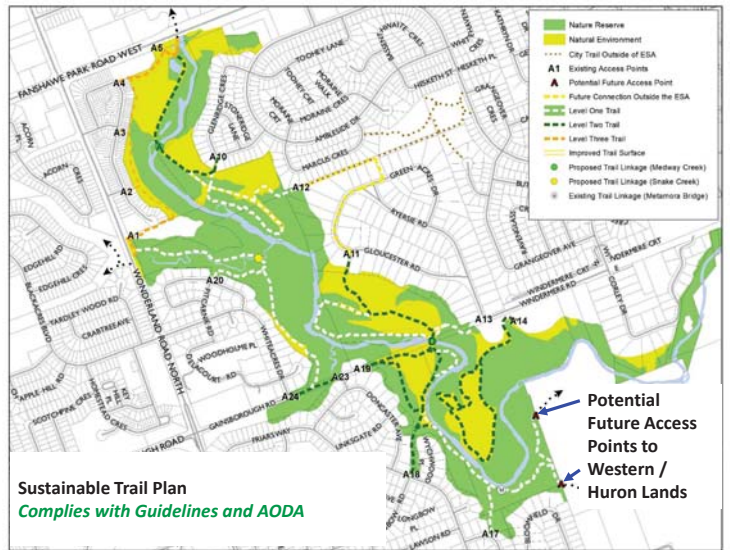
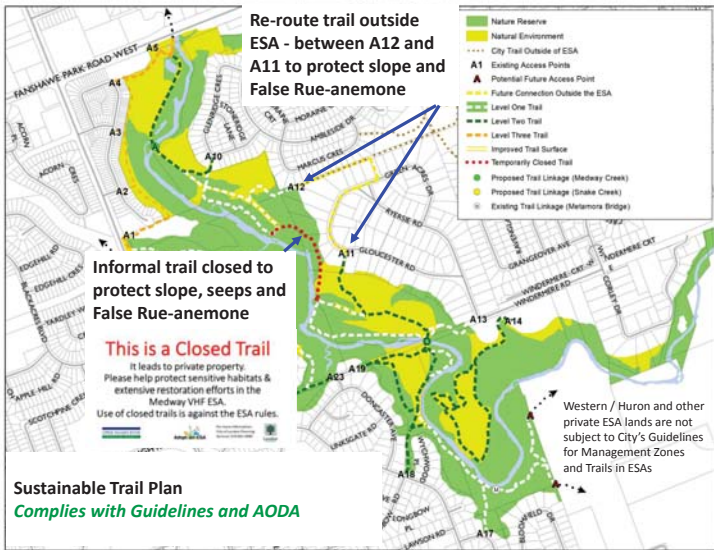
## What might an Accessible Linkage at look like at A and D?

- Pedestrian Bridge south of Sunningdale Road West in MVHF ESA
- Fully Spans Creek, Protects riparian shoreline



DILLON  
London





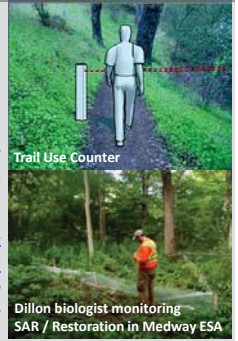
## Continued Adaptive Management and Monitoring

- ✓ Most thorough monitoring program of any ESA in the City is already in place, registered with the Province & recognition from the Federal Government for best practices.
- ✓ Annual invasive species control / SAR monitoring reports, outlining positive active management are circulated to EEPAC, and Ministry of Natural Resources & Forestry (MNRF), are listed in the CMP.
- ✓ Table 12 Monitoring Framework in CMP to continue to track:
  - Bank migration
  - Trail condition
  - Trail usage / linkages over Medway Creek
  - Sensitive species, Invasive species
  - Wildlife & wildlife habitat
  - Encroachment, Non-permitted uses
  - Restoration and naturalization



## Continued Adaptive Management Monitoring: Monitoring Measures of Success

- Monitoring and adaptive management after trail improvements, bridge installation, naturalization and restoration work - described in Table 12 of CMP.
- Trail use in sensitive areas *may decrease* after closure of informal trails and drier, firm and stable Accessible trails are provided in less sensitive areas over sewer alignments, and, linkages are provided outside the ESA.
- Either way the Recovery Strategy for the False Rue-anemone (*Enemion biternatum*) in Canada, 2017 identifies in Table 5 that; “Activities restricted to the surface of existing, authorized... recreational trails would not result in the destruction of critical habitat.”
- If use of trails goes up, natural surveillance goes up, and Crime Prevention Through Environmental Design (CPTED) principles show *increased* compliance with rules and ESA protection



## ONGOING PROTECTION OF SENSITIVE FEATURES LEVEL 1 TRAIL LOOP SOUTH of A10 and WEST of A12

- ✓ Barricade / Corral at transition from Level 2 to Level 1 Trail Type as per Guidelines
- ✓ Educational / Regulatory Signage on Corral:
  - How to protect Sig. Features
  - Why Stay on Trail / Dog on Leash
  - Use at Own Risk / Not AODA compliant
- ✓ Same signage/species Metamora A17, A18
- ✓ Level 1 Trail Loop use *may go down*
- No access to Level 1 Loop from A11 & A13
- Level 2 trail will draw people north to drier, accessible, longer trail
- ✓ If use goes up, rule compliance goes up (CPTED)
- ✓ Use / sensitive species continue to be monitored
- ✓ Biggest threat inv. species has been addressed

Entrance corral at transition from Level 2 → Level 1 trail - AODA info & interpretative signage

## ADAPTIVE MANAGEMENT

Adaptive Management Could Include:

- Seasonal Trail Closure of for 6-8 weeks in spring while False Rue-anemone is growing
- OR
- Permanent Closure of all trails near/in False Rue-anemone habitats including:
  - Level 1 Trail South of A12
  - Level 1 Trail North of A17, East of A15 / A16

This is a Closed Trail

Please help protect sensitive habitats & extensive restoration efforts in the Medway VHF ESA. Use of closed trails is against the ESA rules.

## Implementation of CMP: Budget

Assumed maximum budget based on Estimated Cost table in CMP (Table 4) is \$2,100,000 over ten years

- This accounts for >50% of recommended restoration underway and/or complete
- Based on previous construction costs, each proposed bridge is estimated to fall within a range of \$400,000 – \$500,000 to construct.
- AODA Trail improvements assumed to not exceed \$280/m (2,750 m assumed)

CMP Action	Maximum Estimated Cost
Restoration	\$200,000 remaining (approx. 50% already carried out)
Naturalization	\$120,000
Sustainable Trail Concept Actions	\$1,680,000
Monitoring	Operating Budget and \$100,000 Capital
<b>TOTAL</b>	<b>\$2,100,000</b>



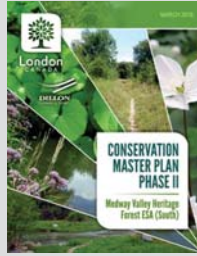
## SUMMARY – Conservation Master Plan

- Satisfies Council’s Strategic Plan
- Follows London Plan Policies
- Complies with Council’s Guidelines for Management Zones and Trails in ESAs
- Addresses AODA regulations and Consultation with Accessibility Advisory Committee

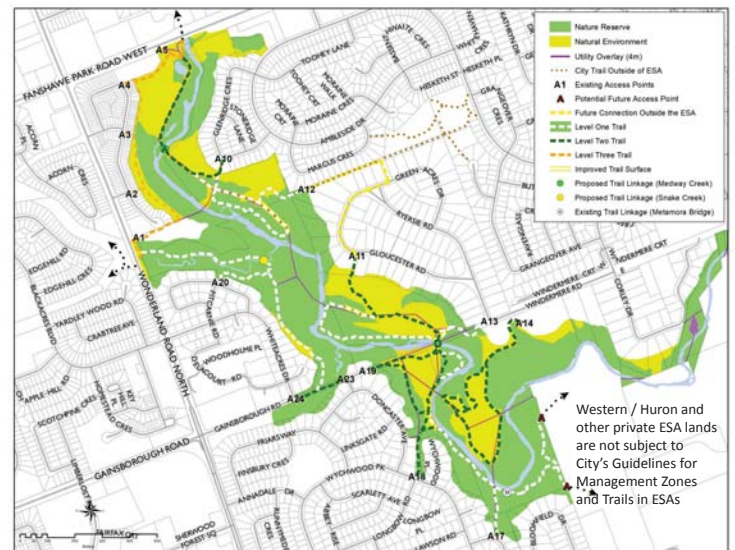
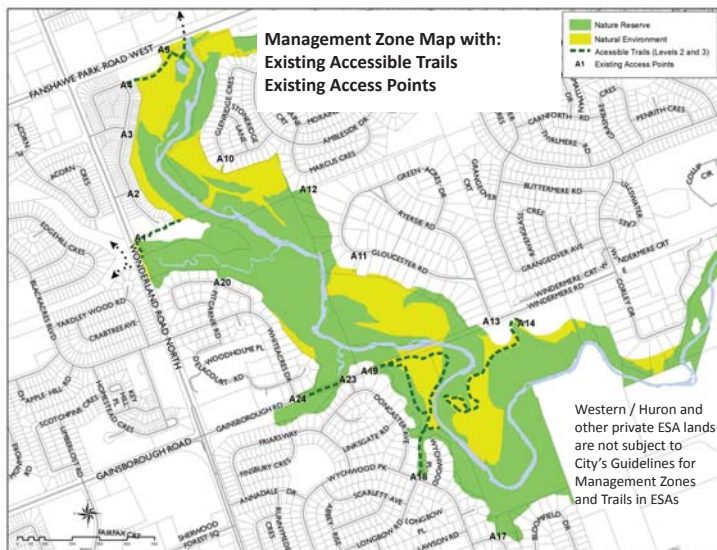


## SUMMARY - Conservation Master Plan

- Ecological Features and Functions Protected
- Increased Use Can be Managed
- False Rue-anemone Protected, Enhanced and Continues to be Monitored
- Accessible Trails Provided Outside Ecologically Sensitive Areas / Over Sewer Alignments



## END



## END of SLIDES



## London Plan

- Policy 1422\_3 London Plan** "The identification of **management zones based on ecological sensitivity**, including descriptions of recreational uses and opportunities for eco-tourism to be provided if applicable, and details of access permitted to and within the area, including formalized pathways and **trail systems**."
- The CMP process is the "trigger" for Accessibility for Ontarians with Disability Act (**AODA**) compliance requirements for the **trail system** including the **requirement** for consultation with the Accessibility Advisory Committee of Council



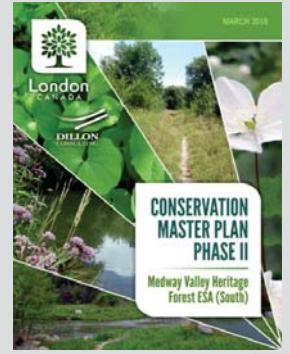
## Accessibility for Ontarians with Disabilities Act (AODA)

- **By law, you must make recreational trails accessible** if you are building new public recreational trails and planning to maintain them or making major changes to existing ones and planning to maintain them
- **Exceptions:**
  - Exceptions where making the trail accessible would have a **significant** negative effect on water, fish, wildlife, plants, invertebrates, species at risk, ecological integrity or natural heritage values
  - In such instances, **the City is expected to meet the requirements of the Standard to the greatest extent possible.**
- **Must Consult with Accessibility Advisory Committee**
- **Accessibility Advisory Committee has ENDORSED the Conservation Master Plan, March 2018**



## Conservation Master Plan – Key Issues

- Environmental Protection
- False Rue-Anenome
- Increased Use
- Accessibility for Ontarians with Disabilities Act (AODA)



**Medway VHF ESA CMP PEC Backup Slides**

April 16 2018

## Firm and Stable Trails Under AODA

Surface Material	Level of Accessibility
Concrete Pavers on Concrete	<p>Accessible</p> <p>Moderately Accessible</p> <p>Least Accessible</p>
Asphalt Crushed Stone Wood Decking	
Soil Cement Untreated Soil	
Wood Chips	
Packed Gravel	

## Accessibility of Trails in London's ESAs – 2017 - Current

Name of ESA	Total Kilometers Managed Trails in each ESA	Kilometers Hiking Trails (Level 1) in ESA	Kilometers of Accessible Trails (Level 2 or 3 or AODA structure) in ESA	Percentage of Accessible Trails in each ESA
Coves	6.4	3.2	3.2	50%
Kains Woods	5.8	5.1	0.7	12%
Kilally Meadows	10.3	5.6	4.7	46%
Lower Dingman	1.4	1.4	0.0	0%
Meadowlily Woods	4.6	4.6	0.0	0%
Medway	11.0	5.9	5.1	46%
Sifton Bog	2.7	2.1	0.6	22%
Warbler Woods	3.9	3.5	0.4	10%
Westminster Ponds	11.4	9.8	1.6	14%
<b>TOTAL ALL ESAS</b>	<b>57.5</b>	<b>41.2</b>	<b>16.3</b>	<b>28%</b>



April 11, 2018

A. Macpherson  
Manager - Environmental & Parks Planning

I hereby certify that the Municipal Council, at its meeting held on April 10, 2018 resolved:

- That the following actions be taken with respect to the 3rd Report of the Accessibility Advisory Committee, from its meeting held on March 22, 2018:
- the Conservation Master Plan for the Medway Valley Heritage Forest ESA (South) BE ENDORSED by the Accessibility Advisory Committee; it being noted that the Meeting Minutes from the ESA CMP Planning Process and the AODA Information Meeting held on February 21, 2018, as well as the attached presentation from L. McDougall, Ecologist, were received;
  - the implementation of Option 1, as outlined in the attached presentation from J. Michaud, Landscape Architect, for the proposed playground at the South West Community Centre, BE SUPPORTED by the Accessibility Advisory Committee;
  - the attached 2018 Work Plan for the Accessibility Advisory Committee BE APPROVED;
  - J. Madden BE APPOINTED as Interim Chair of the Built Environment Sub-Committee and P. Moore BE APPOINTED as Chair of the Transportation Sub-Committee; it being noted that both the Built Environment Sub-Committee and the Transportation Sub-Committee will meet the second Tuesday of each month, and;
  - clauses 1.1, 3.1, 3.2, 3.3, 3.4 and 5.2 BE RECEIVED. (4.37/CPSC)

C. Saunders



## Maintenance of Utilities within the ESA



- London Hydro is currently repairing two hydro poles that span across Medway Creek from Doncaster Gate to Windermere Road
- This is part of routine maintenance of a utility right-of-way
- Work will include the need to trim and/or cut trees to allow access for machinery and trucks to do this repair work



## Overview of Revisions to Final CMP - Trail Strategy

- Changes were triggered based on the formal response received from ACCAC on January 8, 2018. All changes comply with the Guidelines.
- In order to endorse the MVHF ESA (south) CMP, ACCAC requires the following revisions:
  - Upgrade the trail to Level 2 between A11 to the Medway creek at Linkage "D", noting the current trail runs primarily along a utility overlay within a Natural Environment zone.
  - Install a bridge at Linkage "D". This will create an accessible trail from A11 to A18 and A19.
  - Extension of the boardwalk at A18 noting erosion exists, resulting in muddy surfacing and trail-widening (by those attempting to avoid the mud). This trail improvement will maintain the trail as a Level 2 accessible trail.

Note: ACCAC originally requested A13 to Linkage D to be accessible, but as this is within a Nature Reserve zone, an accessible Level 2 trail would not be in accordance with the Guidelines. This demonstrates an "environment first" approach.



## Trail Management - Access and Wayfinding

### Signage in ESAs as described in Guidelines are:

- Informational / Regulatory / Warning
- Interpretive
- Designation / Directional
- Access Point Signs: ESA name, pictographs for rules, QR codes - Brochure / Observation Reports, and, use at own risk. Complete rules / by-law sign on the back.

### New AODA compliant signage at all access points to include a map and identify:

- The length of trail
- The type of surface of which the trail is constructed
- The average and minimum trail width
- The average and maximum running and cross slope
- The location of amenities, where provided



## Examples of Implementing AODA from the City of Toronto Chorley Park

- Existing footpaths, asphalt trail and timber staircase at Chorley Park are not safe for public use and will be removed and converted to a natural forest condition
- To provide safe access into and out of Moore Park Ravine, the City of Toronto developed a plan for two trail connections at Chorley Park:
  - A natural surface footpath for hiking in the forested area
  - An asphalt switchback with a gradual slope to provide access for trail users with differing abilities.
- City of Toronto changed original design to adhere to provincial guidelines. "Supporting Human Rights means providing all citizens with equal and universal infrastructure whenever possible"
- City of Toronto recognizes trails are one tool used to protect ravines and other natural environments. A trail can be planned and managed as a means to help protect and enhance a natural area.
- 160 trees required removal for the project; many were <20 cm dbh, non-native species and/or where susceptible to disease (Elm, Ash). 1500 native trees and shrubs are planned as part of the restoration planting of the site.



## Chorley Park Trails, City of Toronto



## Additional City Policies Taken Into Consideration

### The Age Friendly London Action Plan (2017-2020)

- Includes recommendations to increase the age friendliness of trails
- Neighbourhood profiles for Medway and Masonville areas indicate age demographics of 65+ are increasing while younger age groups are on the decline
  - Masonville 2006-2011
    - 28% increase in 65+
  - Medway 2006-2011
    - 10% increase in 65+



### London Strengthening Neighbourhoods Strategy (2017-2020)

- Provides recommendations and strategies to empower and create sustainable, safe and active communities while also encouraging diversity and inclusiveness



## BRIDGE BACK UP SLIDES



## Response to EEPAC Concerns Bridges over Medway Creek

- Design criteria for bridges:
  - Span the creek and minimize footprint in riparian zone (i.e., no in-water work).
    - Minimize the footprint of the bridge structure approach embankments
  - Allow relief flow generated by the Regulatory 1:250-year event to go around the bridge within the wider floodplain
- Pedestrian bridge structures would be designed and constructed / load rated for pedestrians.



Bridge and Accessible Trail follow existing sewer alignment



Existing Bridge over Medway Creek (north)



## Riparian Zone Undisturbed – No in water work



## Straw Bales and Heavy Duty Sediment and Erosion Fence



## Limit of Disturbance – Minimized



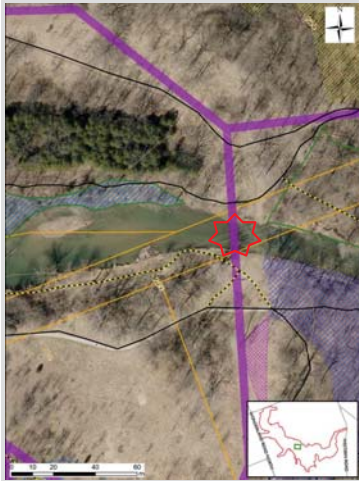
## Linkage A



- Linkage A is a Priority:
- ✓ Suggested by the Public
  - ✓ Would connect two existing managed trails
  - ✓ Natural Env. Zone supports Level 2 accessible trails
  - ✓ Current impacts from lack of linkage – informal crossings and trails
  - ✓ No connection may result in further use of the informal trail to the east (closed managed trail) and in Creek crossings
  - ✓ Outside of mapped Significant Ecological Features
  - ✓ Complies with Guidelines
  - ✓ Over Utility Overlay - Minimize Impact & Enhance Accessibility



## Potential Crossing D



### Considerations

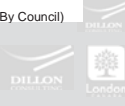
- Would connect two existing managed trails
- Outside of mapped Significant Ecological Features
- Complies with Guidelines

### Trails

- Closed Trail
- Managed Trail
- Informal Trail
- Contour (5 metre Elevation)
- Kentucky Coffee-tree

### Habitat for Species of Conservation Concern

- Habitat for Rare Species (Slender Satin Grass)
- Seeps and Springs Area (S1-S7)
- Habitat for Rare Species (Striped Cream Violet)
- Habitat for Rare Species (American Gromwell)
- Habitat for Special Concern Species (Green Dragon)
- Utility Overlay (4 m)
- MVHF ESA Boundary (Not Approved By Council)



## Potential Crossing E



### Considerations

- Would connect two existing managed trails
- Would require passing through known SCC habitat
- Would not comply with Guidelines as would directly impact Species of Conservation Concern with bridge location along any point of east creek bank.

### Trails

- Closed Trail
- Managed Trail
- Informal Trail
- Contour (5 metre Elevation)
- Butternut
- Kentucky Coffee-tree

### Habitat for Species of Conservation Concern

- Habitat for Rare Species (Slender Satin Grass)
- Habitat for Rare Species (Striped Cream Violet)
- Habitat for Rare Species (American Gromwell)
- Utility Overlay (4 m)
- MVHF ESA Boundary (Not Approved By Council)



## Potential Crossing B



### Considerations

- Would require converting informal trails to managed trails
- Would require passing through known SAR and SCC habitat
- Would not comply with Guidelines as would directly impact Species at Risk with bridge location along any point of creek bank in this location

### Trails

- Closed Trail
- Managed Trail
- Informal Trail
- Contour (5 metre Elevation)
- False Rue Anemone

### Habitat for Species of Conservation Concern

- Habitat for Rare Species (Striped Cream Violet)
- Habitat for Rare Species (American Gromwell)
- Utility Overlay (4 m)
- MVHF ESA Boundary (Not Approved By Council)



## Potential Crossing C



### Considerations

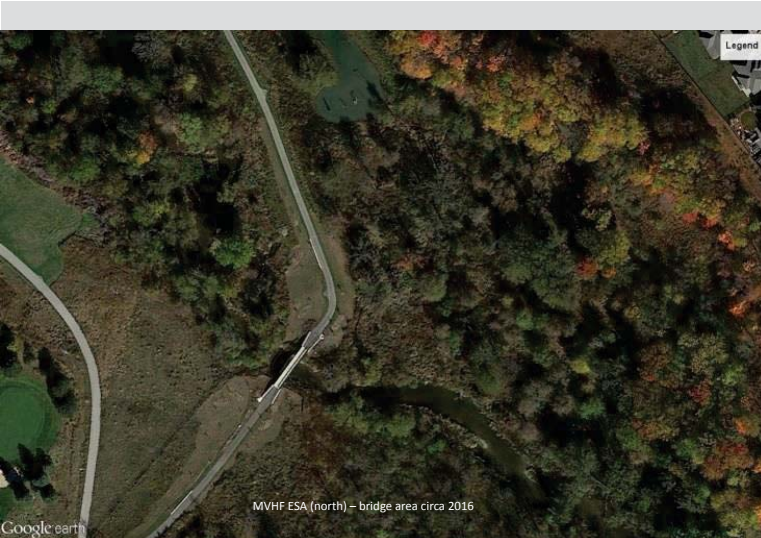
- Would require passing through SAR/SCC habitat
- Would require new trail on west side and/or conversion of informal to managed trail
- Would not comply with Guidelines as would directly impact Species at Risk with bridge location along any point of west creek bank.

### Trails

- Closed Trail
- Managed Trail
- Informal Trail
- Contour (5 metre Elevation)
- False Rue Anemone

### Habitat for Species of Conservation Concern

- Seeps and Springs Area (S1-S7)
- Habitat for Rare Species (Striped Cream Violet)
- Habitat for Rare Species (American Gromwell)
- Habitat for Special Concern Species (Green Dragon)
- Utility Overlay (4 m)
- MVHF ESA Boundary (Not Approved By Council)



## Environmental Management Strategy: Trail Management Plan



Metapora Bridge - before



Metapora Bridge - after

City required by law to meet AODA standards where possible:

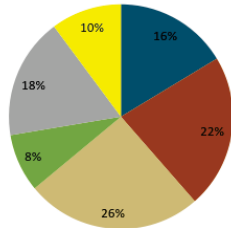
- Linkage A & D (Bridge) recommended :
  - Area low in sensitive ecological features
  - Would provide increased accessibility, keeping accessible trail and linkage in disturbed area with ongoing access req. (Utility Overlay).
  - Supported by ACCAC



## Survey Results

- Question 3: What do you think could be improved in the MVHF ESA (south)?

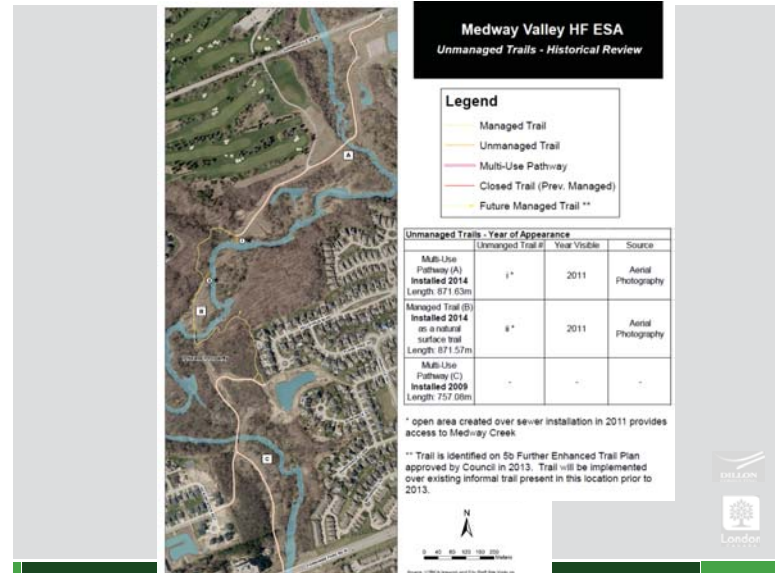
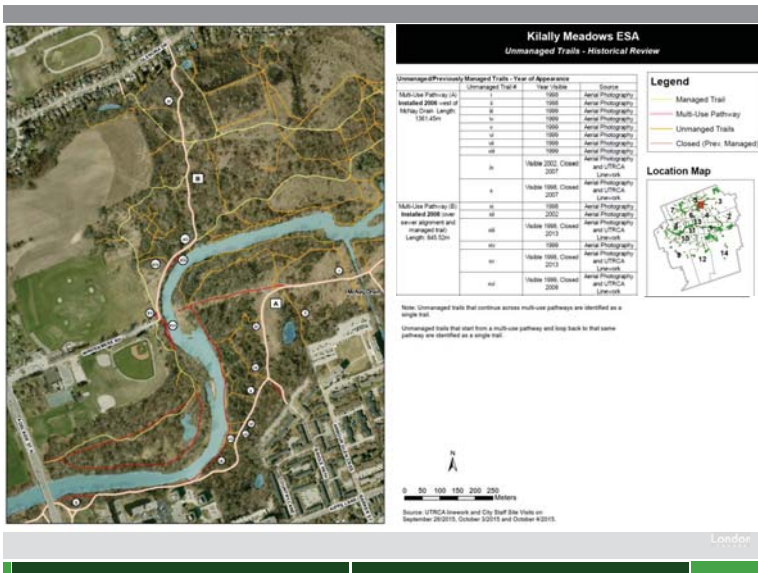
### What do you think could be improved in the MVHF ESA (south)?



- Interpretative Signage
- Planting of Native Species in the ESA
- Ecological Restoration
- Trail Amenities like Benches, Railings
- Improved Trail Connections
- Other

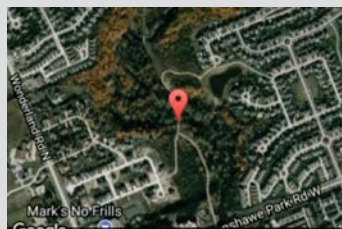


## Trail DATA



## Data from Trail Use Monitor in the MVHF ESA North

- Daily average - **123** people a day from April 2016 to August 2017
- More on weekends (152 a day) – less during the week (111 a day)
- Most people on one day was **432** on Oct 16, 2016
- 44,895** people / year
- All visits between 6am and 10pm **good news – consistent with rules**



## Overview of Revisions to Final CMP - Trail Strategy

With the revisions provided in the final CMP, the trail system through the MVHF ESA (when including both north and south) would be the longest accessible nature trail available throughout the City of London.  
Summary of Trail Lengths in MVHF ESA (south)

Trail Level	Existing Length (m)	Oct. 2017 Version (m)	Final March 2018 Version (m)
Level 1	6,169	4,967	4,834
Level 2	2,116	3,141	3,992
Level 3	487	1,358	1,358
Unmanaged/ Closed		5,435 m	



## Protected Area Annual Visitors, Area, and Trails

Protected Natural Area	Visits per year	Area in hectares	Kilometers of Trails
Medway Valley HF ESA (north) (2016-17)	44,895	62	3
<a href="#">Point Pelee National Park</a> (2015-16)	300,106	19	12
<a href="#">Pinery Provincial Park</a> (2010)	614,479	2,533	17

Comparison of Study raised by LAC member “**10 Factors that Affect the Severity of Impacts of Visitors in Protected Areas**, (Pickering, 2010)” with the **Guidelines for Management Zones and Trails in ESAs**, 2016 and Other Policies and Management for ESAs in London

- City’s Guidelines and related ESA protection policies meet or exceeds all Pickering’s recommendations



## Overcrowding in ESAs?

- Chair of EEPAC circulated New York Times piece Sept. 27/2017 - [National Parks Struggle With a Mounting Crisis: Too Many Visitors](#) to staff / EEPAC Working Group



- Zion is among the most visited parks in the system. In 2016, about 4.3 million people visited, up 60 percent from a decade ago. Considering a first for any national park: requiring reservations for entry.

Contrast with MVHF ESA (north) data at LAC 4:

- average - 123 people a day from April 2016 to August 2017
- More on weekends (152 a day) – less during the week (111 a day)
- Most people on one day was 432 on Oct 16, 2016
- 44,895 people / year pass by the trail counter
- All visits between 6am and 10pm good news – consistent with rules



## Access 1 and 12 and Trails outside ESA Photos



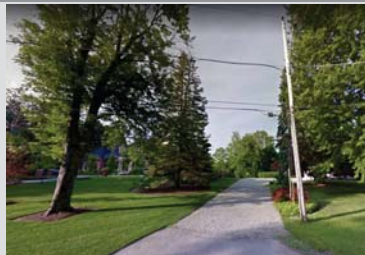
## Greenacres Photos

- Greenacres – Unopened Road Allowance is City Property



## Existing Access 12 – Street view

- Gloucester Road - Access 12



## Existing Trail Outside ESA – leading to Access 11

- Existing dirt / woodchip trail outside ESA behind homes



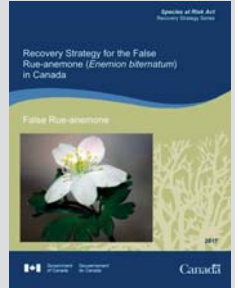
# FALSE RUE ANEMONE BACK UP SLIDES

- Restoration, Naturalization
- Adaptive management



# Response to EEPAC (& Nature London) Concerns False Rue-anemone

- Populations of sensitive species have continued to persist though pressured by invasive species (which are being controlled for).
- 5,435 m of unmanaged/informal trails are proposed to be closed and restored. **Approximately 725 m overlaps False Rue-anemone habitat.**
- Recovery Strategy for the False Rue-anemone (*Enemion biternatum*) in Canada (2017) clearly states as well "Off-trail recreation and trail use" is a threat to this sensitive species if populations undergo trampling and soil compaction."
  - Off-trail recreation goes on to refer primarily to ATV use, but also refers to inadvertent trampling and resulting soil compaction.
- Recommendations provided in CMP to help encourage users to remain on official trails through use of barriers, upgraded trail surfaces and signage. This is consistent with the federal Recovery Strategy.
- Measures to encourage users to remain on trails and divert users to areas away from the core habitat of sensitive species helps to mitigate the potential for inadvertent trampling
- Recovery strategy cites that "activities restricted to the**



**DILLON**  
ENVIRONMENTAL CONSULTANTS

Petruniak, Jennifer <jpetruniak@dillon.ca>

**RE: False Rue-anemone Mitigation Plan for Review**

1 message

**Thompson, Melinda (MNR)** <Melinda.Thompson@ontario.ca> Fri, Jul 4, 2014 at 2:53 PM  
To: "Petruniak, Jennifer" <jpetruniak@dillon.ca>  
Cc: Jonathan Harris <jharris2@dillon.ca>, "McDougall, Linda" <lmcdoug@london.ca>, Brandon Williamson <williamsonb@thamesriver.on.ca>

Hello Jennifer

I have only minor corrections and comments (see the attached). I endorse this Mitigation Plan as it appears to take sufficient steps to mitigate impacts to False Rue-anemone within the Medway Valley, as well as contributing to the reduction of a significant threat to the species.

Melinda

Melinda Thompson, B.A.Hon., M.Sc.  
Species at Risk Biologist  
Aurora District, Ministry of Natural Resources  
50 Bloomington Rd Aurora, ON L4G 0L8  
Tel. (905) 713-7425  
Fax. (905) 713-7360  
melinda.thompson@ontario.ca

**Holly J. Bickerton**  
Consulting Ecologist  
143 Ainslie Ave. Ottawa, K2J 2Y1  
(613) 730-7725  
holly.bickerton@ranger.com

3 April 2018

Linda McDougall  
City of London  
287 Dundas St.  
London, ON N6A 1H2

RE: False Rue-anemone recovery and the Medway ESA Conservation Master Plan (CMP)

Dear Ms. McDougall,

Thank you for contacting me to comment on the recovery of False Rue-anemone and the Medway ESA CMP as above. I am an Ottawa-based consulting ecologist and botanist specializing in species at risk, particularly at-risk plants. I compiled the first draft of the (2017) Environment Canada Recovery Strategy for the False Rue-anemone (*Enemion biternatum*) in Canada, which is available to the public on the federal Species at Risk Act registry (see reference below).

I have reviewed relevant sections and plans within the CMP and I believe it is consistent with the actions proposed in the recovery strategy for this federally Threatened plant species. By discouraging and decommissioning existing informal trails within the habitat of this species (see Fig. 4b of CMP), the CMP will reduce threats of trampling and disturbance to its sensitive habitat (see p. 20 and Table 3, p. 23 of recovery strategy). By improving trail surfaces adjacent to its habitat, the CMP will prevent visitors from widening wet and muddy trails, and further encroaching into suitable or even occupied habitat. The proposed trail upgrade (improving trail surface) outside the population and habitat as shown in the Concept Plan of the CMP (Level Two Trail from A11, Fig. 4b) directs visitors away from sensitive habitat toward other areas. By increasing signage (p. 37 of CMP), the public will be made aware of the sensitive nature of the habitat (Table 3 of recovery strategy, p. 13). All of these activities are consistent with and support the actions listed in the recovery strategy.

It is important to emphasize that improving surfaces of existing trails is not inconsistent with recovery of populations where it reduces threats to the species or its habitat. As stated in the recovery strategy, the "surfacing of existing, authorized/recreational trails would not result in destruction of critical habitat" (Table 5, p. 19). In my experience and 20 years of observation, well-planned, managed and signed trails protect sensitive habitat by encouraging visitors to stay on the path. In Ottawa, the National Capital Commission (NCC) created such a path through the Mud Lake Conservation Area, a birding area of national significance, over 10 years ago. The creation of this path has worked extremely well to discourage visitors from extensive wandering and trampling of vegetation. These observations and conclusions are supported by both the ecologist who designed the trail routes, and by NCC land managers.

The False Rue-anemone population in London is in my opinion, well monitored and managed. The City of London has been active in addressing the most serious threat to this population: invasive Goutweed. By removing this aggressive competitor, monitoring data shows that the native False Rue-anemone populations in Medway Creek are stable to increasing after three years of treatments (see Invasive Species Control Program: Results for the Medway Heritage Forest ESA, January 2018). A clear and detailed plan to mitigate threats and monitor populations is in place (see False Rue-anemone Mitigation Plan: Medway Valley Heritage Forest [South] ESA, July 2014). As stated in the CMP, "on-going monitoring will continue to determine if controlled species re-established" (p.54). The stable to expanding size of this population suggests that it can persist and even recover when the predominant threat (invasive species) is removed, despite multi-use trails elsewhere in the Medway ESA.

Staff and consultants of the City of London were active contributors to the development of the recovery strategy, freely providing documents and data. In its development, the recovery strategy also underwent extensive review by ecologists and land managers at all levels of government, and was made available for review by the general public for several months.

The Medway Valley False Rue-anemone population is an important one for this species' recovery. In my opinion, the Medway ESA CMP and supporting work by the City of London will help to protect and restore the False Rue-anemone population within this densely populated urban area.

Please feel to contact me at the number above if I can provide any further information or assistance.

Yours sincerely,  
*Holly Bickerton*

**Holly Bickerton**  
Consulting Ecologist, B.A.Sc., M.E.S.  
Member of COSSARO, Field Botanist of Ontario, Ottawa Field-Naturalists  
and Ontario Invasive Plant Council.

Reference:  
Environment and Climate Change Canada. 2017. Recovery Strategy for the False Rue-anemone (*Enemion biternatum*) in Canada. Species at Risk Act Recovery Strategy Series. Environment and Climate Change Canada, Ottawa. vii + 37 pp.



## Protection of False Rue-anemone (*Enemion biternatum*), a Threatened<sup>A</sup> species found in the Medway Valley Heritage Forest ESA

**2013**  
Phase I Inventory identified Goutweed (*Aegopodium podagraria*) as a Threat to False Rue-anemone in MVHF ESA

**2014**  
City contracted UTRCA and Dillon to control Goutweed to assist in the recovery of a Threatened Species at Risk

**2015**  
Goutweed Control early success and native species return to understorey

Opportunity to increase awareness of Species at Risk and promote education of invasive species threats consistent with the recommendations in the proposed Recovery Strategy for the False Rue-anemone in Canada, 2016

The City of London was recognized for their innovative work, habitat protection and contributions to the Federal Recovery Strategy for the False Rue-anemone in Canada, 2016.

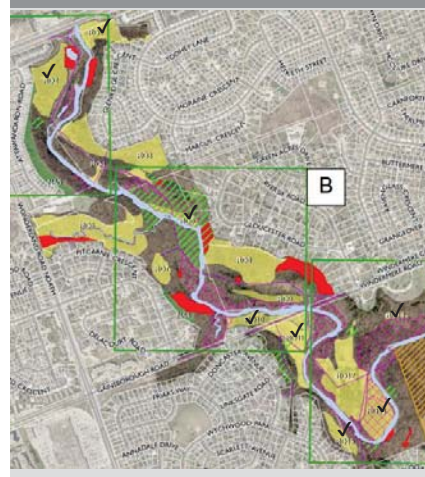
Existing trails in the ESA have helped to limit trampling and promote public awareness of this species, while also providing a physical barrier to prevent the spread of Goutweed

**2016**  
Goutweed population significantly reduced as of 2016/2017

**2017**  
False Rue-anemone identified in areas where Goutweed once existed

<sup>A</sup> "Threatened" means the species lives in the wild in Ontario, is not endangered, but is likely to become endangered if steps are not taken to address factors threatening it.

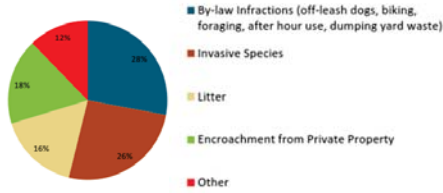
## Environmental Management Strategy: Restoration



- Previous Work - Majority of restoration work underway in 8 of 15 Restoration Overlays (RO) on Figure 2
- High Priority RO 5, 14 & 15 to protect SAR implemented in 2013-2017
- City / Dillon & UTRCA recognized for innovative work, SAR habitat protection and contributions to the [Federal Recovery Strategy for the False Rue-anemone \(\*Enemion biternatum\*\) in Canada](#)
- Phragmites high priority in all ESAs incl. Medway. Control since 2013 (RO 1 & 2)
- Current Work to manage Periwinkle, Goutweed, Buckthorn, Norway Maple, Phragmites, Loosestrife, and, native tree / shrub plantings (RO 10, 11 & 13)
- Garlic Mustard pulled by SF Adopt an ESA
- Future Work – implement RO3, 4, 6, 7, 8, 9 & 12 to manage Buckthorn, Snowdrops, Woodland Sedge, plant trees & continue monitoring

## Adaptive Management for Dogs off Leash

What do you consider to be the biggest "Threat" to the ESA?



### Dogs off leash identified throughout the entire process by residents as big concern:

- Innovative measures to increase compliance with rules have worked in other natural areas (Tardona, 2012) – idea was circulated to EEPAC and OPSF Ratepayers Adopt an Group for consideration
- New measures could include banning all dogs from Medway Valley ESA south
- Increased compliance with dogs on leash rules shown on paved trails (99% compliance vs woodchip or un-paved trail sections 71-74%) (Leung et. al., 2015)



## Phase I Summary of Findings

1. All significant ecological features identified in Phase 1 were found to be compatible with the existing managed trails based on Chart 2 from the Guidelines for Management Zones and Trails in ESAs.
2. Fifteen areas were identified that require active ecological restoration or special management. Majority of ecological restoration work is underway in 8 of 15 Restoration Overlays. (Figure 2)
3. Five areas were identified for naturalization. Two currently identified in Phase II. (Figure 2)



## Phase I CMP Summary of Findings

5. **Nine wildlife habitat types identified & recommendations provided for:**
  - Colonialily-Nesting Bird Breeding Habitat
  - Amphibian Breeding Habitat
  - Seeps and Springs
  - Habitat for Species of Conservation Concern:
    - Shrubby St. John's Wort
    - Striped Cream Violet
    - Slender Satin Grass
    - American Gromwell
    - Green Dragon
6. **Habitat for Threatened or Endangered native species identified:**
  - Butternut
  - Cucumber Magnolia
  - Kentucky Coffee-tree
  - False Rue-anemone
  - Queensnake
  - Spiny Softshell
  - SAR bats



## EEPAC INVOLVEMENT WITH FALSE RUE-ANEMONE EEPAC is Circulated ~ 4 times a year with False Rue-anemone Updates

- March 2018 Staff ESA Capital Project List included False Rue Anemone management
- August 2017 Dillon Presented August CMP and False Rue-anemone information
- October 2017 - Dillon Presented October CMP and False Rue-anemone information
- September 2017 – Staff ESA Committee Minutes included False Rue-anemone management work
- March 2017 - Staff ESA Committee Minutes included False Rue-anemone management work
- January 2017 Staff Presented and Circulated Invasive Species Control Program Results Medway Valley Heritage Forest ESA, December 2016
- January 2017 Dillon Presented and Circulated Memo Response to EEPAC on False Rue-anemone and Green Dragon, Medway Valley Heritage Forest ESA.
- November 2016 Staff Presented and Circulated Invasive Species Control Program Results Medway Valley Heritage Forest ESA, December 2015 (Second time)
- January 2016 Staff Presented and Circulated Invasive Species Control Program Results Medway Valley Heritage Forest ESA, December 2015
- October 2015 - ESA Update and Capital Project List included information about Invasive Species Work to protect SAR/ False Rue-anemone in MVHF ESA
- February 2015 List of ESA Capital Projects included False-Rue-anemone project
- April 2015 Presentation of revised Phase 1 CMP including False Rue anemone
- May 2015 – Ecosystem Planning presentation included slides on False Rue-anemone
- November 2014 – ESA Update included information about Invasive Species Work to protect SAR in MVHF ESA
- September 2014 – Abstract of False Rue-anemone Goutweed project presentation to Ontario Invasive Plant Council AGM on EEPAC's agenda
- + EEPAC attended all 6 LAC meetings in 2017 for CMP process including discussions on False Rue-anemone

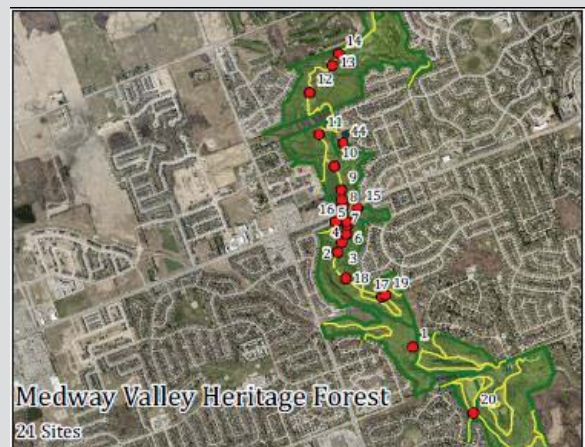


## Environmental Management Strategy: Naturalization



- NA1, NA2 and NA3 – Part of RO9, RO11, RO12
- NA4: Identified during Phase I
- NA5: Identified during Phase II
- High quality ecological restoration of mown lawn areas into native meadows and succession to woodland
- Restoration work in association with trail implementation over lawn areas could define limit of restoration and limit future encroachment

## Phragmites Treatment in Medway – 21 sites have been treated and are Monitored annually





## 2017 Council Resolution



February 15, 2017

J. M. Fleming  
Managing Director, Planning and City Planner

I hereby verify that the Municipal Council, at its meeting held on February 14 and February 15, 2017 resolved:

4. That, on the recommendation of the Managing Director, Planning and City Planner, the following actions be taken with respect to the Midway Valley Heritage Forest Environmentally Significant Area (south) Conservation Master Plan (Phase 1 and 2):

41. the Natural Heritage Inventory and Evaluation for the Midway Valley Heritage Forest Environmentally Significant Area (MNHF ESA), forming Phase 1 of the Conservation Master Plan, approved by the staff report dated February 8, 2017 as Appendix 'A', BE APPROVED in accordance with Section 15.3.3. of the Official Plan and policies 1421 and 1422 of The London Plan;

42. the Addendum to the Natural Heritage Inventory and Evaluation MNHF ESA, including the existing trail network approved by the staff report dated February 8, 2017 as Appendix 'B', BE APPROVED in accordance with Section 15.3.3. of the Official Plan and policies 1421 and 1422 of The London Plan;

43. the Local Advisory Committee BE INCLUDED in the trail planning and discussions relating to environmentally significant areas as appropriate;

44. the members of the Environmental and Ecological Planning Advisory Committee, Nature London and the community BE THANKED for their work in the review and comments on the Phase 1 document; and

45. based on the process with the recently updated Guidelines for Management Zones and Trails in ESAs, Phase 1 of the Conservation Master Plan for the Midway Valley Heritage Forest Environmentally Significant Area (south) BE INITIATED. (2017-422) (AM/PEC)

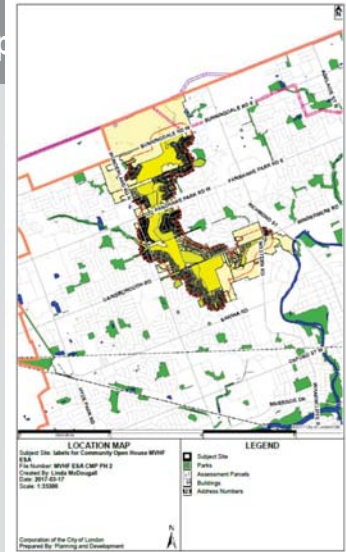
*[Signature]*

C. Saunders  
City Clerk

46. A. Macpherson, Manager, Environmental and Parks Planning  
I. McLaughlin, Ecological Planner  
I. Midway, Ecological Planner  
Chair and Members, Environmental and Ecological Planning Advisory Committee



## Radius Notification Map



## Continued Community Engagement

- Additional content identifies federal and provincial initiatives to help increase appreciation for and accessibility to nature while also educating:
  - Mood Walks** is a province-wide initiative that promotes physical activity in nature, or "green exercise," as a way to improve both physical and mental health.
  - Naturally Accessible - Discovering Ontario's Land Trusts** is an initiative of the Ontario Land Trust Alliance (OLTA) in partnership with the Accessibility Directorate of Ontario.
  - Canadian Parks Council - Healthy by Nature**, Encouraging Canadians to spend more time in parks will support improved physical and mental/emotional health, and provide opportunities to inform and educate people about the important connection between healthy ecosystems and healthy human populations.



## END PRESENTATION

