

**9TH REPORT OF THE
ENVIRONMENTAL AND ECOLOGICAL PLANNING
ADVISORY COMMITTEE**

Meeting held on September 28, 2017, commencing at 5:00 PM, in Committee Rooms #1 and #2, Second Floor, London City Hall.

PRESENT: S. Levin (Chair), E. Arellano, A. Boyer, E. Dusenge, C. Dyck, P.L. Ferguson, S. Hall, B. Krichker, S. Madhavji, K. Moser, N. St. Amour, S. Sivakumar, J. Stinziano, C. Therrien, R. Trudeau and I. Whiteside and H. Lysynski (Secretary).

ABSENT: C. Evans, C. Kushnir, S. Peirce and N. Weerasuriya.

ALSO PRESENT: C. Creighton, J. MacKay, L. McDougall, A. Macpherson, G. Nichols and A. Rammeloo.

I. CALL TO ORDER

1. Disclosures of Pecuniary Interest

That it BE NOTED that no pecuniary interests were disclosed.

II. SCHEDULED ITEMS

None.

III. CONSENT ITEMS

2. 7th and 8th Reports of the Environmental and Ecological Planning Advisory Committee

That the following actions be taken with respect to the 7th and 8th Reports of the Environmental and Ecological Planning Advisory Committee (EEPAC) from its meetings held on July 20 and August 24, 2017:

- a) the 7th Report of the EEPAC BE RECEIVED; and,
- b) the 8th Report of the EEPAC BE AMENDED in clause 2 to correct the spelling of A. Boyer.

3. 8th Report of the Advisory Committee on the Environment

That it BE NOTED that the 8th Report of the Advisory Committee on the Environment from its meeting held on September 6, 2017, was received.

4. Municipal Council Resolution - 7th Report of the Environmental and Ecological Planning Advisory Committee

That it BE NOTED that the Municipal Council resolution adopted at its meeting held on September 5, 2017, with respect to the 7th Report of the Environmental and Ecological Planning Advisory Committee, was received.

5. Parker Stormwater Management Facility and Trunk Storm Sewer EIS

That the attached, revised, Working Group comments, related to the Parker Stormwater Management Facility and Trunk Storm Sewer Environmental Impact Study, BE FORWARDED to the Civic Administration for consideration.

6. Bostwick Road Improvements Municipal Class Environmental Assessment - Subject Lands Status Report and Environmental Impact Study

That the attached Working Group comments, related to the Bostwick Road Improvements Municipal Class Environmental Assessment and Subject Lands Status Report and Environmental Impact Study, BE FORWARDED to the Civic Administration for consideration.

7. Nature London - Invitation to Unveiling of a Plaque

That it BE NOTED that the invitation to the Nature London plaque unveiling to be held on Friday, October 13, 2017, was received.

8. Resilient Cities Conference

That it BE NOTED that the communication dated September 6, 2017 from S. Ratz, Chair, Advisory Committee on the Environment, with respect to the Resilient Cities Conference to be held on November 17 and 18, 2017, was received.

9. One River Master Plan Environmental Assessment Study - Notice of Public Information Centre

That, the Acting Division Manager, Stormwater Engineering, BE ADVISED that, based on the information received to date, the review by the Environmental and Ecological Planning Advisory Committee of said information and pending further information specifically related to fluvial geomorphology and benthic monitoring data, specifically the Environmental Impact Study, the Environmental and Ecological Planning Advisory Committee believes that the restoration of the Springbank Dam would have an undesirable impact on:

- fisheries and fish management;
- water quality;
- reptiles and their habitat, especially turtles; and;
- the red horse sucker species and their habitat will be negatively impacted;

it being noted that the EEPAC received the attached presentation from A. Rammeloo, Acting Division Manager, Stormwater Management, with respect to the One River Master Plan Environmental Assessment Study.

IV. SUB-COMMITTEES & WORKING GROUPS

10. ESA Management Committee Meeting Minutes

That it BE NOTED that the ESA Management Committee minutes from its meeting held on June 14, 2017, were received.

11. Master Plan - Southern Portion of Medway Valley Heritage Forest ESA

That the Working Group comments related to the Conservation Master Plan Phase II draft for the southern portion of the Medway Valley Heritage Forest Environmentally Significant Area, BE APPROVED; it being noted that S. Levin will incorporate and forward the Working Group comments into the format requested by the Managing Director, Planning and City Planner.

12. Boler Access Road EIS

That it BE NOTED that the Environmental and Ecological Planning Advisory Committee heard a verbal presentation from R. Trudeau, with respect to the Boler Access Road Environmental Impact Study.

13. Environmental Impact Study - 2835 Sheffield Place

That, consideration of the Environmental Impact Study for the property located at 2835 Sheffield Place BE POSTPONED to the next meeting.

V. ITEMS FOR DISCUSSION

14. Workplan

That consideration of the 2017 Environmental and Ecological Planning Advisory Committee Work Plan BE POSTPONED to the next meeting.

15. Working Group comments - Thames Valley EIS

That the attached Working Group comments, related to the Thames Valley Environmental Impact Study, BE FORWARDED to the Civic Administration for consideration.

16. Roles for the Medway Valley HF ESA (south) Conservation Master Plan Process.

That it BE NOTED that the roles related to the Medway Valley Heritage Forest Environmentally Significant Area (south) Conservation Master Plan process, were received.

17. Wetlands

That consideration of the wetlands discussion BE POSTPONED to the next meeting.

18. Working Group Comments - Draft Urban Agriculture Strategy

That the attached Working Group comments, related to the Draft Urban Agriculture Strategy, BE FORWARDED to the Managing Director, Planning and City Planner, for consideration; it being noted that there were no changes from the previous EEPAC submission relating to this matter.

19. Invasive Plant Management Strategy – Request for Committee Comments

That it BE NOTED that the Environmental and Ecological Planning Advisory Committee held a general discussion with respect to the Invasive Plant Management Strategy.

20. Phragmites

That it BE NOTED that the Environmental and Ecological Planning Advisory Committee received the draft comments on controlling phragmites prepared by S. Sivakumar, and requested that proposed amendments be provided to S. Sivakumar by October 5, 2017.

21. Request for Representative for the Municipal Advisory Group

That J. Ramsay, Project Manager, Rapid Transit, BE ADVISED that C. Evans will represent the Environmental and Ecological Planning Advisory Committee (EEPAC) on the Municipal Advisory Group related to Rapid Transit, subject to the meeting schedule and his availability; it being noted that B. Krichker will act as an alternate representative for the EEPAC on the Advisory Group.

22. London Cat and Birds Pamphlet

That the proposed amendments recommended by the Animal Welfare Advisory Committee (AWAC) to the Cat and Bird pamphlet BE COMPLETED and the revised pamphlet BE FORWARDED to Corporate Communications for review; it being noted that Environmental and Ecological Planning Advisory Committee will work with AWAC on the distribution of the pamphlet when complete.

23. Request - C. Kushnir

That, C. Kushnir BE PERMITTED to remain on the Environmental and Ecological Planning Advisory Committee (EEPAC); it being noted that Ms. Kushnir's educational schedule does not permit her to attend meetings until January, 2017; it being further noted that Ms. Kushnir continues to participate in Working Group projects and is a valuable member of the EEPAC.

VI. DEFERRED MATTERS/ADDITIONAL BUSINESS

24. (ADDED) Working Group Comments - Victoria on the River, Block 153 – Zoning By-law Amendment

That consideration of the Working Group comments, related to the Victoria on The River, Block 153, Zoning By-law Amendment, BE POSTPONED to the next meeting.

25. (ADDED) Habitat Protection, Restoration and Stewardship

That it BE NOTED that the update with respect to the habitat protection, restoration and stewardship related to the Medway Valley Heritage Forest Environmentally Significant Area, was received.

26. (ADDED) Boler Mountain Access Road - EIS

That the attached Working Group comments, related to the Boler Mountain Access Road Environmental Impact Study, BE FORWARDED to the Managing Director, Planning and City Planner.

VII. ADJOURNMENT

The meeting adjourned at 8:00 PM.

NEXT MEETING DATE: October 19, 2017

Parker Stormwater Management Facility and Trunk Storm Sewer Outlet Environmental Impact Study (EIS)

Document reviewed:

- 2017 Parker Stormwater Management Facility and Trunk Storm Sewer Outlet by Natural Resources Solution Inc.

Submitted by: Berta Krichker and Ian Whiteside

September 26, 2017 EEPAC meeting

INTRODUCTION

This EIS should not be accepted until EEPAC's concerns are adequately addressed. EEPAC is of the opinion that the EIS was submitted without the Parker Stormwater Management (SWM) Facility and Trunk Storm Sewer Outlet's proposed design and does not address all required EIS considerations associated with the proposed infrastructure and evaluation of the potential adverse impacts on this water resources system functions and features by this undertaking

EEPAC is disappointed by the very limited review time allocated and requests that in order to be able to undertake a comprehensive review of EIS for a proposed infrastructure, all components related to evaluations of environmental/ecological potential impacts on the functionality/features of this system need to be provided to EEPAC.

The Impact Analysis of this EIS ignores the evaluation of:

- all water resources components for the proposed storm/drainage and SWM system; and
- the 2004 Dingman Creek Subwatershed Study Updates (DCSSU) recommended objective to improve the existing deficiencies and apply efforts to restore/reclaim deficient systems. Natural Resources Solution Inc., only reviewed the 1995 Dingman Creek Subwatershed Study, which was superseded by the 2004 Dingman Creek Subwatershed Study Updates.

RECOMMENDATION #1: Prior to accepting this EIS, shall be required to meet the main objectives of DCSSU, approved by City Council in relation to water resources/SWM, are to protect and restore/reclaim deficient and impacted systems and address and require further analysis prior to acceptance of the report. Impacts to the tributaries must be addressed and quantify the following:

- the hydrogeological assessment including water balance assessments (groundwater, and surface flows (under the minor and major flow conditions).
 - the slope stability conditions evaluations and required protections with a new storm outlet, potential dewatering detailed methodology and measures;
 - cumulative impact evaluations of major functions of environmental/ecological system of this watercourses that may be impacted by the proposed infrastructure discharges;
 - EIS is required to evaluate the potential impacts of the proposed infrastructure on the baseflows and during wet weather conditions, the recommended buffers size shall take into consideration the floodlines location for this watercourses; and
 - The report should address any potential impacts to groundwater by the proposed dewatering.
- **RECOMMENDATION #2:** Prior to accepting this EIS, shall be required to undertake a specific water quality/quantity and erosion control monitoring program under the pre (existing baseline conditions) and post construction conditions (including, but not be limited to, water quality basic chemistry and biological monitoring-BioMap). This matter requires further commentary/analysis prior to acceptance of the report.

RECOMMENDATION #3:

- A. The dewatering plan should include an Erosion Sediment Control Plan. A very robust plan that will protect this watercourse, as well as appropriate measures to ensure the watercourses are not impacted by the dewatering activities. The effectiveness of these measures should be evaluated consistent with the groundwater monitoring program. The dewatering disposal system should be identified.
- B. Post-construction/dewatering, groundwater quality sampling should be conducted again to ensure no change to the baseline conditions.

RECOMMENDATION #4:

The consultant has not provided the required technical, environmental/ecological evaluation and justifications to support 15 m buffers and evaluations of the cumulative impacts from this undertaking under post construction. The entire document is weak in dealing with post construction impacts and it is post development impacts that generally have negative impacts on water resources, aquatic conditions, flora and fauna. Prior to accepting this EIS, shall be required to undertake the above-noted analyses and provide justifications to reaffirm the size of the proposed buffer.

DR

BOSTWICK ROAD IMPROVEMENTS

Dated August 2017, received at EEPAC's August meeting

Reviewers: Chris Evans and Sandy Levin
Submitted to September 28, 2017 EEPAC meeting

EEPAC is generally supportive of the outcome of the City's work on this site as it relates to the protection of the Significant Woodland (Patch 10064).

In addition, EEPAC has some other recommendations.

THEME #1 – Patch 10065

1) The wetland associated with patch 10065 (MAM2-2 Reed Canary Grass Mineral Meadow Marsh) "very likely meets the minimum requirements for significant wildlife habitat (SWH)" and therefore should not be impacted by development. This area qualifies as woodland amphibian breeding SWH (wetland plus a 230 m radius of woodland area). Two or more frog species listed in the criteria (significant wildlife habitat technical guide) schedule were observed with 20 or more total individuals qualifying the patch as SWH (P 16).

"Amphibians are known to move between wetland (breeding) and upland (non-breeding) habitats; both habitat types are critical for supporting the animals' life cycle (P 17). This habitat is isolated from the other patches within the study area (~ 300 m separation between wetland and nearest section of Thornicroft drain), therefore the necessary upland habitat function is likely provided by patch 10065 - making the patch even more significant to sustaining these populations.

This patch does not seem to be clearly labelled on 'Map 5 - Natural Heritage' of the London Plan. Parsons writes, "there is evidence to suggest this unit qualifies for significance based on the City's criteria, even without a detailed site analysis (P 19)". See page 20 for further explanation of sites significant ecological features.

Based on Parsons findings patch EEPAC would contest that Patch 10065 is not of low or degraded ecological value.

RECOMMENDATION #1: The OMB be advised that this patch has been evaluated and should be noted as Significant on Map 5 of the London Plan

Theme #2 – Connectivity of Patches

Furthermore, As per page 349 of the London Plan,

1334) Development or site alteration shall not be permitted within a wetland. There shall be no net loss of the wetland features or functions. In some instances, and in consultation with the conservation authority having jurisdiction, the City may consider the replacement of wetlands where the features and functions of the wetland may be provided elsewhere and would enhance or restore the Natural Heritage System.

2) EEPAC's primary concern is the impact from the proposed Bradley extension. Patches 10065 (East) and Patch 10064 (North) will be impacted. Habitat connectivity is of paramount value in urban spaces due to the highly fragmented landscape. Crossing over Thornicroft drain, constructing a new culvert and impacting the connectivity of Patch 10064 ought to be avoided.

If the road does cross Thornicroft drain, what will the net loss in habitat be? How will this loss be compensated for?

While EEPAC agrees with Parsons determinations:

2i. Culvert should be sized up (increasing culvert openness ratio) to improve riparian connectivity and facilitate wildlife crossings (P 23).

2ii. "The surrounding successional areas provide a buffer between the watercourse channel and both Bostwick Road and surrounding agricultural fields (P20)"

RECOMMENDATION #2 - Expand the vegetated buffer around Thornicroft Drain to protect and improve water quality. This watercourse will face increased pressures as a result of adjacent development.

RECOMMENDATION #3 - EEPAC supports Parsons' recommendation that Vegetation Unit #5 (between Bostwick Road and the Thornicroft be included within the boundary of Patch 10064 and be considered part of the Significant Woodland designation. (P 20) and that Map 5 of the London Plan be altered to reflect this change from unevaluated vegetation patch to Significant Woodland.

Theme #3 – Buffering of Patch 10064

EEPAC agrees with Parsons recommendation to set a buffer of 30m along the southern edge of the woodland adjacent to the Bradley avenue extension. This is greater than the 10m buffer from drip line of woodlands outlined in the City's Environmental Management Guidelines. However, "Setting an appropriate buffer width will be a primary concern along the southern edge of Patch #10064, since the proposed Bradley Avenue extension follows this southern edge. Patch #10064 contains SWH in the form of terrestrial crayfish burrows, provides nesting habitat for Special Concern bird species Eastern Wood-pewee ... (P 22)" Removal in veg, changes in drainage, light and noise inputs will all impact the species within the woodlot.

RECOMMENDATION #4 –

- a. Sufficient funding be included in the capital budget for the project for enhanced naturalization and invasive species control.
- b. The detail design include a naturalization and buffering plan (Restoration Landscape Plan is mentioned on p. 29) to the satisfaction of a City Ecologist.
- c. Plantings should be appropriate for the ecosite, i.e. floodplain species for areas near the Drain.
- d. The Clean Equipment Protocol be followed by the contractor

Other comments

RECOMMENDATION #5 – Planning and Development Services staff be notified of the Butternut trees identified in this project (p. 23) so that they may be protected from the impacts of future development by appropriate buffering.

Map 7 of Preferred Alternative is a poor map. Unclear how roads connect to larger transportation network.

Review of historical air photos of Area 8a show significant disturbance to wetland features by the property owner(s).

One River Master Plan EA Update

Ashley M. Rammeloo, P.Eng.

Share your vision for the future and learn more:

getinvolved.london.ca/OneRiver



One River Master Plan: Update



- Problem/Opportunity Statement
- Work to date
- Agency Advisory Committee
- Evaluation Criteria
- Schedule of Next Steps



One River EA EEPAC Engagement

EEPAC Project Task

- EEPAC engagement included as a specific task in the Consultant Work Plan.

Contact Points

- Initial Background Presentation.
- Follow-up with status update during alternative analysis.
- Presentation of EIS materials following selection of preferred alternative.
- Work program requires the Consultant develop a table that will outline a response to EEPAC comments for two (2) rounds of comments.
- The Consultant will also update any other related reports as required.

we are here



Problem/Opportunity Statement

"The river that flows through London's downtown has many names:

- *Deshkan Zibbing (known to the Anishnaabeg and Lenape of the Great Lakes);*
- *Kahwy'hatati (ONYOTA:KA); and,*
- *The Thames (John Graves Simcoe)*

This river is both our inheritance and our living legacy. It is our collective responsibility to maintain and enhance this shared natural, cultural recreational and aesthetic resource. The One River Master Plan Environmental Assessment will consider the area historically influenced by the Springbank Dam and will provide a plan that coordinates critical infrastructure projects in ways that improve the overall health of the river, identifies and creates an understanding of potential impacts these projects may have on downstream communities, species at risk and/or endangered species and where possible avoids them and respects the vision of Back to the River's "The Ribbon of the Thames" concept plan. This study, in the context of many other ongoing initiatives, will preserve for future generations this valuable resource and allow people of all abilities to enjoy and access this designated Canadian Heritage River."



Work to Date

- Public engagement via GetInvolved and community events
- Stakeholder meetings
- Fisheries field surveys
- Geomorphology study in progress
- Analysis of water quality data in progress
- Completion of Agency Advisory Committee Report
- Development of evaluation criteria for Springbank Dam alternatives



Springbank Dam Alternatives

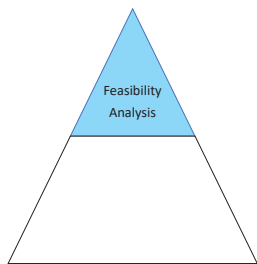
- Do Nothing
Dam is left as-is
- Free-Flowing River
Dam is decommissioned and no longer provides water retention but may be repurposed
- Reinstate the Dam
Dam is reinstated to provide a water retention function



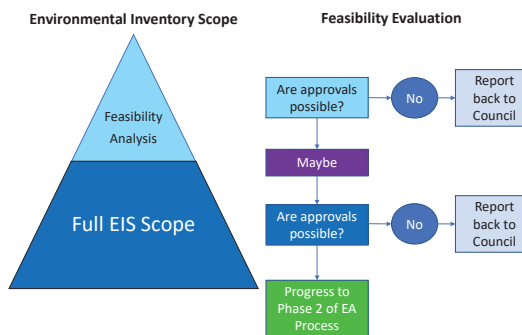
Environmental Work Program Staged Approach

Feasibility Analysis:

- Undertake literature review of impact of dams and barriers.
- Water Quality Statistical Analysis of +30 year dataset.
- Review previously completed environmental studies (over 20).
- Assemble Species at Risk data from MNRF, DFO, and UTRCA.
- Seek advice from subject matter experts on key species.



EA Option Screening Staged Approach



Agency Advisory Committee

- Ministry of Environment and Climate Change
- Ministry of Natural Resources and Forestry
- Upper Thames River Conservation Authority
- Lower Thames River Conservation Authority
- Department of Fisheries and Oceans



Agency Advisory Committee Report

- Species At Risk Act and Endangered Species Act
- Planning and Permitting Approvals Framework
- Permitting Considerations Related to Dam Alternatives
- Complexity of Approvals Anticipated



Species Identified in Study Area

- Eastern Spiny Softshell
- Northern Map Turtle
- Snapping Turtle
- Eastern Milksnake
- Queensnake
- 7 mussel species
- 5 fish species including silver shiners



Table 3.1. Summary of Aquatic and Terrestrial Species Identified within the One River Study Area

Common Name	Scientific Name	S-RANK	COSEWIC	COSSARO	Notes
Herpessauria (S)					
Eastern Spiny Softshell	<i>Apalone spiniferus</i>	S2	END	THR	Observed in the study area (UTRCA). Identified by MNRF, July 8, 2016.
Northern Map Turtle	<i>Maplemys geographicus</i>	S3	SC	SC	Observed in the study area (UTRCA). Identified by MNRF, July 8, 2016.
Snapping Turtle	<i>Chelydra serpentina</i>	S3	SC	SC	Observed in the study area (UTRCA). Identified within the study area by MNRF, July 8, 2016.
Eastern Milksnake	<i>Lampropeltis triangulum</i>	S4	SC	NAI	Observed in the study area (UTRCA).
Queensnake	<i>Megascops septentrionalis</i>	S2	END	END	Observed in the study area (UTRCA). Identified by MNRF, July 8, 2016.
Mussel (S)					
Many-rayed Lampbrush	<i>Simplicia fasciata</i>	S1	SC	THR	UTRCA/DFO/EC Sampling Records 2004, 2013 and 2015. Possible to occur within study area (UTRCA, 2017a). Identified by MNRF, July 8, 2016.
Sandwicher (Mudpuppy) Mussel	<i>Simpsoniella ambigua</i>	S1	END	END	UTRCA/DFO/EC Sampling Records 1998, relic shell found. Critical SARA habitat mapped (DFO, 2016). Identified by MNRF, July 8, 2016.
Magdalen mussel	<i>Quadrula quadrula</i>	S2	SC	THR	UTRCA/DFO/EC Sampling Records 1998, live species found. Critical SARA habitat mapped (DFO, 2016).
Rainbow mussel*	<i>Villosa iris</i>	S2/S3	SC	THR	Found upstream of study area 2003/2004 sampling records, likely to occur (UTRCA, 2017b). Critical SARA habitat mapped (DFO, 2016).
Spotted mussel*	<i>Villosa sibilatrix</i>	S1	END	END	Found upstream of study area 2003/2004 sampling records, possible to occur (UTRCA, 2017b). Critical SARA habitat mapped (DFO, 2016).
Round pigtoe*	<i>Pseudemema sirtionis</i>	S1	END	END	Found upstream of study area 2003/2004 sampling records, South Thames Branch, likely to occur (UTRCA, 2017b). Critical SARA habitat mapped (DFO, 2016).
Edenburgh*	<i>Psychrobanchus fasciolaris</i>	S1	END	END	Unlikely to occur in study area (UTRCA, 2015). Critical SARA habitat mapped (DFO, 2016).
Fish (S)					
Silver shiner	<i>Notropis photogenus</i>	S2/S3	THR	THR	UTRCA/DFO/MNI Sampling Records 2011/2015 throughout study area. Critical habitat under consideration (DFO, 2016). Identified within the study area by MNRF, July 8, 2016.
Blackchin shiner	<i>Melanostema dussumieri</i>	S2	THR	THR	UTRCA/DFO/MNI Sampling Records 2004/2005 throughout study area. Likely to be present within the study area (UTRCA, 2017a). Identified by MNRF, July 8, 2016.
Northern Brook Lamprey	<i>Lethenterion fossilis</i>	S3	SC	SC	Found in 2003 Saint-James Dam (A. New Forts area (Jervis, 2010)). Critical habitat mapped (DFO, 2016).
Golden shiner	<i>Notemigonus crysoleucas</i>	S2	SC	SC	UTRCA/DFO/MNI Sampling Records 2005. Critical habitat mapped (DFO, 2016).
Peconia Killifish*	<i>Opiopneustes emiliae</i>	S2	THR	THR	Observed downstream of the study area (JCV, 2003). Critical habitat mapped (DFO, 2016).

* Included in critical habitat mapped for several mussel species in the study area (DFO 2016)

* Included in critical habitat mapped for fish species under consideration in the study area (DFO, 2016)



Relevant Legislation Considered

Table 4.1. Relevant Legislation Considered
Legislation Relevant to One River / A Springbank Dam Alternatives

Policy or Act	Administrative Body
Conservation Authorities Act	UTRCA
Provincial Policy Statement	MMA
Environmental Protection Act	MOECC
Ontario Water Resources Act	MOECC
Lakes and Rivers Improvement Act	MNR
Public Lands Act	MNR
Endangered Species Act	MNR
Species at Risk Act	DFO
Fisheries Act	DFO
Navigation Protection Act	Transport Canada (TC)



Complexity of Approvals Anticipated

SECTION 4

Table 4.2. Complexity of Approvals Anticipated

Act	Administrative Body	Permit Required	Dam Alternatives											
			Do Nothing			Free-Flowing River			Maintain the Dam					
			*Cost	*Time	*Tech. Complexity	Cost	Time	Tech. Complexity	Cost	Time	Tech. Complexity			
CAA	UTRCA	Permit under Section 28	N/A			S	Short	Medium	Medium	\$55	Long	Medium	High	
OWRA	MOECC	Permit To Take Water	N/A							S	Short	Medium	Medium	
OWRA	MNR	MNR Dam Construction Regulations Permit	S	Long	Low	Medium	\$5	Long	High	High	\$55	Long	Extreme	Extreme
ESA	MNR	Overall Benefit Permit	N/A			S	Short	Medium	Medium	\$55	Long	Extreme	Extreme	
SARA	DFO	Permit	S	Long	Low	Low	S	Long	Low	Low	\$55	Long	High	High
WRP	TC	Navigation Water Permit	N/A			S	Long	Low	Low	S	Long	Medium	Medium	

Table Notes
 *Cost to implement activities to meet permit requirements based on \$55 water @ Low Cost, \$5 Medium Cost, \$55 High Cost
 *Time Considerations for permitting (Short or Long)
 *Technical Consideration Level (Low, Medium, High, Extreme)
 *Social Complexity based on cost, time and technical considerations (Low, Medium, High, Extreme)



MNR Permits under ESA

- Permits are considered under five categories: health and safety, protection or recovery, social or economic benefit to Ontario, Aboriginal, and overall benefit
- Two permits were of note when discussing the repair of Springbank Dam: D-permit for social or economic benefit, and C-permit for overall benefit
- Only two D-permits have been issued to date
- C-permits typically require a mitigation plan that provides compensation at a ratio of 5:1 for lost habitat



Evaluation Criteria

- Natural Environment
 - Water quality, geomorphology, Species at Risk, terrestrial habitat, aquatic habitat, groundwater and surface water interactions
- Social/Cultural Environment
 - Cultural heritage, archaeological resources, public health & safety, water-based recreation, land-based recreation, shoreline accessibility, aesthetics, First Nations interests, urban revitalization
- Technical Environment
 - Flood hazard impact, carbon footprint, infrastructure protection, constructability, approvability, operations & maintenance, compatibility with existing and planned infrastructure projects, capital cost



Schedule of Next Steps

- October 18 & 19, 2017: Public Information Centre to present alternatives for Springbank Dam and receive public input
- Evaluation of Alternatives
- Q4 2017: Present preferred alternative for Springbank Dam to CWC



Questions?



THAMES VILLAGE

Review of July 7-2015 EIS, received by Chair on June 12, 2017 and consultant's document dated April 12, 2017 reply to City and UTRCA

Submitted by: Sandy Levin, Alison Regehr, Ian Whiteside

INTRODUCTION

This EIS should not be accepted until a “holistic” document is prepared for review by the City and agencies. In its current form, with multiple documents, is confusing and liable to misinterpretation and understanding. EEPAC is concerned that it will be difficult for staff to provide clear conditions of development which is important as this development is being shoehorned adjacent to an ESA.

Ideally, the City should buy lands in this area to avoid having a development on each side of the ESA “finger” (Tributary 2c)

EEPAC is disappointed that it has not been involved in the review of this proposal since its review of the 2013 draft of the EIS addendum. It only received at its May meeting, a copy of the April 12, 2017 letter from the consultant which was a collection of responses from the consultant to the City and the UTRCA. EEPAC was not invited to the April 14, 2015 meeting referred to in the July 2015 version of the addendum (EIS 7-2015). In fact EEPAC only received EIS 7-2015 (which contained the consultant's comments to EEPAC's 2013 comments, when it asked for a single comprehensive version in June, 2017.

Further, EEPAC has grave concerns about this development proposal as will be detailed below. In general, it is being shoehorned into an ESA with many hopeful comments in the EIS that all will be right with the ESA after construction. However, the EIS is weak on considering and mitigating post construction impacts. It generally relies on standard conditions to provide the protection for the ESA post construction. This report includes recommendations for additional conditions of development and holding provisions meant to provide for a more detailed review of those post EIS Plans mentioned in the EIS 7-2015.

In addition to this development and the city's SWM pond which is slated for construction in 2017, there are a number of development proposals by Sifton Properties to the west of this site, including Patch 09028 which is referenced in this EIS as unavailable to the consultants due to separate ownership and separate development application. Despite OP policies about sub-watershed planning, once again, work is done on a site specific basis with no eye to cumulative impacts of development adjacent to an ESA.

The Impact Analysis in EIS 7-2015 ignores the continued access to the Hydro corridor and the impact of grading which will not match existing grades. It appears permission has been given to encroachments (p. 93) that were permitted so that the constraints fit the development. The development should be sized to fit the constraints instead. It is also quite amazing that the impact analysis claims

no significant impact from increased human entry into an ESA that has no managed trail system or Conservation Master Plan. There is also no mention of cats and dogs in the impact analysis either.

Theme 1 - GROUND WATER AND INFILTRATION

The EIS references that discharge to the Thames from the Tributaries is cold water. We have concern is geochemistry/ temperature changes from dewatering/ surface water drainage (and flow into Thames) could have deleterious impact on habitat.

It appears that there is groundwater discharge along the entire length of the tributaries (Tributary 1, 2, 2a, 2b, 2c, and 6) with the presence of Skunk Cabbage, Marsh Marigold, and Watercress indicating the presence of groundwater discharge - groundwater discharge is not just confined to the visible seeps. This likelihood is further supported by the groundwater flow map prepared by Golders, which indicates the groundwater table of the unconfined aquifer is higher than ground surface and is therefore likely discharging to the tributaries. The report should address the potential impact to groundwater discharges along the entire length of the Tributaries.

RECOMMENDATION: This matter requires further commentary/ analysis prior to acceptance of the report. Impacts to the tributaries must be quantified.

Post development infiltration needs to be given a second look, with a more holistic approach that looks at the development as a whole (including the impact of the SWM facility) rather than piecemeal. EEPAC has two concerns:

The report we reviewed was in isolation to the other areas being developed. Groundwater flow to the tributaries will come from both the upland portions and the site covered by the Golders report, and post development infiltration for the entire site needs to be considered.

The addendum to the exp report from June, 2015 that discussed post development infiltration is insufficient and inconclusive:

- A), infiltration in the developed areas, even after mitigation measures, is expected to range between 40 and 65%, well below the 90% target cited in the Golders report.
- B) The assumptions regarding post development infiltration in Parcel 6, which is essentially the ESA, is likely wrong. The report assumes that run-off from adjacent parcels is treated as precipitation in Parcel 6; it is not, in my opinion (precipitation is evenly distributed over the entire site, whereas run off is a point source and will likely not infiltrate into the water table. As well, infiltration upstream in the areas being developed is much more important given groundwater flow into the upper reaches of the tributaries. Regardless, relying on infiltration outside of the development site to achieve one's "80%" target is not consistent with the Guidelines. The target should be applicable to the areas being developed only, not the developed areas plus adjacent areas.

RECOMMENDATION: The report not be accepted until this matter is clarified and the 80% infiltration target is demonstrated to be accurate.

THEME 2 - SITE MONITORING DURING CONSTRUCTION ACTIVITIES

The report references the likely need for a Permit to Take Water during construction activities, as the likely dewatering volumes are in excess of 400,000 litres per day. Additionally, we reference the City of London guidelines for Sediment and Erosion, which specifies that controls must be put in place to ensure adequate protection of water quality in open watercourses within the City's boundaries. EEPAC has concern that dewatering during construction, as well as construction in general, could have an adverse impact on the adjacent ESA related to potential erosion and/ or increase in sediment entering the water course.

RECOMMENDATION #3:

- A. The dewatering plan should include an Erosion Sediment Control Plan, as well as appropriate measures to ensure the nearby watercourses located in the ESA are not impacted by the dewatering activities. The effectiveness of these measures should be evaluated consistent with groundwater monitoring program discussed in Section 8.
- B. Post-construction/dewatering, groundwater quality sampling should be conducted again to ensure no change to the baseline conditions. The wells being sampled post construction should be downstream of the construction site.
- C. For certainty, the parameters being analyzed should include BTEX as discussed in Section 4.2.

THEME 3 - POST DEVELOPMENT GROUNDWATER INFILTRATION/ SURFACE WATER RUN-OFF

EEPAC would like to have a more detailed assessment of the pre and post development water balance. The report noted that it is important that the post-development water infiltration be sufficient to maintain the groundwater seeps into watercourses. These seeps are cited as being important to maintain.

In particular, EEPAC is concerned with the following:

The minimum post-development infiltration required to maintain the seeps is 90% of the pre-infiltration level (Section 6.2.4). Exp Services Inc. in their Hydrological Assessment and Water Balance Report on the Thames Village Residential Development (February, 2015) estimated the post-development infiltration will be 41.9% without mitigation measures, and from 71.0% to 89.6% with mitigation measures. While the Report discussed potential mitigation measures to increase post development infiltration, none were quantified. Additionally, EEPAC would like to add two additional mitigation measures:

RECOMMENDATION #4

- A. increase the depth of topsoil throughout the development, as a thicker layer of topsoil is able to infiltrate/store/evaporate more water
- B. take actions to reverse soil compaction before laying topsoil (or reduce soil compaction in the first place) (e.g. <http://www.sustainabletechnologies.ca/wp/home/urban-runoff-green-infrastructure/low-impact-development/soakaways-infiltration-trenches-and-chambers/catchment-scale-evaluation-of-rear-yard-soakaways-and-soil-amendments/>)

RECOMMENDATION #5:

A - Quantify the impact of the proposed mitigation techniques in order to demonstrate achieving a minimum 90% pre-development infiltration rate.

B - Incorporate these design elements into the site plan.

C - Post-development, monitor the site to ensure that the groundwater seeps remain and that groundwater infiltration is not less than 90% of the pre-development infiltration rate.

Reports identify the subject site as not being connected to the storm water management pond. Rather, surface water (including stormwater runoff) from the site will presumably drain to the tributaries, bypassing the SWM Facility. Section 6.2.1 states there will be an increase in surface runoff post-development owing to an increase in impermeable areas, which could result in significant difference in the flow pattern after a rain event (peak flow will occur sooner and will be higher). This increase in the peak discharge may result in an increase in erosion and an increase in suspended solids in the watercourse.

RECOMMENDATION #6:

A. - Incorporate design elements into the site plan such that the peak discharge into the watercourses is not more than the current peak discharge.

B. - Ensure that appropriate sediment control measures are put in place to limit sediment discharge from the site to that which existed prior to site development.

RECOMMENDATION #7: All infiltration measures must be to the satisfaction of the UTRCA and the City. This is particularly important as page 11 of the April 2017 document repeatedly says “where feasible” without explaining what would make measures feasible.

RECOMMENDATION #8: A hydrogeological monitoring program must be developed in the detail design stage (page 7 of the April 2017 document) to the satisfaction of the City and the UTRCA. This requirement must be a condition of development. Holdbacks must also be required because if the monitoring determines that there has been harm to the wetlands, there must be a consequence.

RECOMMENDATION #9: If the wetland feature and/or function is harmed, the proponent must either contribute to the creation of a wetland in another part of subwatershed or contribute to the City’s Woodland Acquisition Fund or to the completion and/or implementation of the Meadowlily ESA Conservation Master Plan. This should be a condition of development.

THEME 4 - WATER QUALITY

EIS 7-2015 on page 108 suggests that a water quality monitoring program should be implemented and should be completed in conjunction with the requirements for the SWM facility. It is unclear to EEPAC if any of this coordination has taken place. The detail design work is done for the SWM facility and construction is imminent. It is probably too late to coordinate programs unless such work has already taken place.

RECOMMENDATION #10: A water quality monitoring program for the development must be prepared and approved by the City and the UTRCA as a condition of development.

OVERLAP BETWEEN SWM POND WORK AND DEVELOPMENT WORK

EIS 7-2015 and EEPAC’s 2013 comments all refer to the work undertaken by a separate consultant for the City for the soon (August 2017) to be built SWM pond and outlet. EEPAC has not received the details design nor the restoration plan for the site. How the City’s restoration plan and the proponent’s plans will work in concert remains a mystery.

RECOMMENDATION #11: There be coordination between the SWM Unit, Development Services and Environment and Parks Planning on restoration and protection measures for the ESA, including monitoring.

CLINE LANDS

(See page 108 of EIS 7-2015). EEPAC is concerned about water quality impacts of the future development. It is stated that an oil grit separator (OGS) requiring periodic maintenance will be required. Given the lands will be in private ownership after development, how realistic is this? What mechanism does the City have to compel such works? If it does, where does such information go? Are there any examples in London where an OGS have been installed, inspected and reported? With new LID requirements coming into place in Ontario, there will be a greater need for a process to be in place if not already. Regardless, the EIS relies heavily on the detail design stage of development to provide details of such a system

RECOMMENDATION #12: Development Services implement a program for receiving and confirming the regular maintenance of OGS where installed on private property.

RECOMMENDATION #13: UTRCA and City approval be required of the lot level controls.

RECOMMENDATION #14: Consideration be given to the road to the condo having curb and gutter with OGS rather than a gravel shoulder.

THEME 5 - BUFFERS AND ENCROACHMENT

It is unfortunate that the consultants used 10 year old city buffer Guidelines when Beacon's more recent Buffer Guideline work for the Credit Valley Conservation Authority has been used by a number of consultants. Regardless, EEPAC notes that EIS 7-2015 page 85 says that the City has agreed to buffers and the ESA boundary. Page 87 indicates the success of buffering is "provided the buffer is actively restored with native species. "

EEPAC also notes that City staff confirmed that the proposed townhouse road can occur in the ESA buffer. This meeting was April 18, 2016. EEPAC was not in attendance and would not have supported such an agreement.

EIS 7-2015 repeatedly states for each small encroachment that it is not anticipated to cause a negative impact to the adjacent features. What the consultants ignore is the cumulative impact post construction. The entire document is weak in dealing with post construction impacts leaving much to future "Plans" yet to be developed. It is post development impacts generally that have negative impacts on flora and fauna.

EEPAC also takes issue with Table 1 on page 13 of the April 2017 document. It would have been much better to enlarge Area L and revegetate it. Area K is adjacent to the SWM facility. Not much of a useful buffer really, given it will probably be an access point for a path and or the outlet.⁴

RECOMMENDATION #15: The success of the buffers depends not only on successful restoration, but also active post construction monitoring and enforcement. Sadly, the lack of a completed CMP for the ESA makes this post construction future questionable. City staff should move immediately to restart the CMP process or at least explain to Council the lack of action since they took office.

RECOMMENDATION #16: Given that Sifton Properties is developing adjacent to the west side of Patch 09028, and that the Thames Village consultants did not have access to this site, the buffers for the east side of the patch must be reviewed with the City prior to acceptance of EIS 7-2015.

RECOMMENDATION #17: A holding provision be applied to the site until a cumulative impact analysis is provided to the satisfaction of the City.

EEPAC is also concerned that the consultant recommends on page 12 of the April 2017 document that the proposed extension of the ESA boundary provides an opportunity for passive regeneration of this existing rear lot area into a more natural feature over time. It is unclear from any of the documentation what happens if this opportunity fails? There is a risk that the area will be overrun with invasive species. Hence, EEPAC asks for the following as a condition of the monitoring program:

RECOMMENDATION #18: If the passive regeneration opportunity does not show results during the monitoring period of three years, the proponent be required to renaturalize it with species approved by a City ecologist.

THEME 6 - TRIBUTARY 2

EEPAC is concerned about the possible negative impact to the fish in this Tributary. Page 101 points out that the proposed culvert, if installed wrong, could create a new barrier to fish.

RECOMMENDATION #19: All in water work, must (not should as stated in EIS 7-2015) must comply with DFO and MNRF requirements.

RECOMMENDATION #20: A qualified person (aquatic biology preferred) should be on site during the construction and have authority to stop work if the work on the culvert would create a barrier to fish movement.

All pre and post construction stage mitigation measures made in the EIS must be included in conditions of development. EEPAC has the following to add to these conditions.

THEME 7 - PRE-CONSTRUCTION CONDITIONS

RECOMMENDATION #21: A cavity tree assessment for bats and bat maternal colonies be a condition of approval (as suggested on page 94 of the January 2015 version of the EIS)

THEME 8 – CONSTRUCTION CONDITIONS

RECOMMENDATION #22: Any lay down, storage or fuelling must be 30 m outside setbacks and never adjacent to natural features, especially, watercourses. EEPAC is most concerned that this will be difficult to achieve for the Cline lands development.

RECOMMENDATION #23: A Sediment Erosion Plan (mentioned at page 104 of EIS 7-2015) must be required as a condition of development. It must include direction that the storage of soils must be a minimum 30 m from all watercourses, slopes, and ravines.

On page 105, the consultants mention there should be an Environmental Management Plan to ensure sediment and erosion control measures are installed, maintained and functioning. As sediment control measures are a standard condition, EEPAC recommends the following additional requirements:

RECOMMENDATION #24: An ecologist/biologist, selected to the satisfaction of the City, with authority to stop work, be on site during construction.

RECOMMENDATION #25: A Flood Response Plan (mentioned at page 105 of EIS 7-2015) must be required as a condition of development. In that plan, it must mention that work must (not just should) not take place during high volume rain events or snow melts/thaws (see p.105-6 of EIS 7-2015).

RECOMMENDATION #26: Clean Equipment Protocol must be followed and be a condition of the development agreement.

THEME 9 - TRAIL PLANNING

It is a shame that trails are outside the scope of the addendum (p. 109 EIS 7-2015) given it is the development that gives urgency to having a trail system in place to handle the increase in human traffic. While EEPAC agrees that the standard condition, fences with no gates is a must, EEPAC also recommends:

RECOMMENDATION #27: The homeowner material include an explanation of why no gates should be ever installed in the fence.

THEME 10 - MANAGEMENT PLAN AND MONITORING

There is no information about species to be planted other than noting “native species” there is nothing about dealing with invasive species including Japanese Knotweed which was noted in an FOD7-4 community as well as Phragmites in Tributary 2C. It is unclear from all of the various documents in EEPAC’s hands what the actual plan is other than to allow buffer areas to naturally regenerate. There is no list of plant species proposed for which area (given the mix of ecosites, one “size” will not be appropriate to all areas). NRSI’s letter to the UTRCA and the City dated April 12, 2017 received by EEPAC at its May meeting, suggests that this natural regeneration will be monitored and if not satisfactory (to who?), “a plan could possibly be implemented.” This is hedging of the first

order and is not acceptable. In the many documents there is no detail provided. Given the location adjacent to a large section of an ESA, a formal plan must be in place prior to construction.

RECOMMENDATION #29: A condition of rezoning (a holding provision) be applied until a formal management plan, including invasive species management, species to be planted listed, monitoring periods and hold backs for remediation and subsequent plantings if natural regeneration fails, is approved by the City. If such a condition is not possible on zoning, it **must** be a condition of development approval.

There is woodland amphibian breeding habitat within the FOD5 community (page 5, April 12, 2017 letter). It is suggested that the 10 m buffer is sufficient protection. According to the MNR's Significant Wildlife Habitat Mitigation Support Tool development on adjacent land can have significant impacts on breeding pond functions if it alters ground or surface water quality or quantity. Woodland ponds which dry up before larvae transform as a result of disruptions to hydrological function become unsuitable sites for reproduction. Adjacent development can have a very high impact if it separates breeding habitat from summer or winter habitat. Residential and commercial development may result in the release of contaminants (i.e., sediments, high nutrient concentrations)

RECOMMENDATION #30: The monitoring plan must include baseline information, monitoring and reporting of the health of the SWH. The plan must also include compensatory mitigation if SWH is lost.

The letter of April 12, 2017 on page 6 also notes that "... the location and orientation of the seeps on site (also Significant Wildlife Habitat) may be altered, this is not expected to negatively affect their function to support wildlife and provide a course of vegetation biodiversity with the ESA." While it is almost certain the seeps will be altered, there is also a real possibility that they will be negatively affected.

RECOMMENDATION #31: The monitoring plan must include baseline information and monitoring of the seeps ecological function and vegetation biodiversity. If function or vegetation biodiversity are lost, compensatory mitigation will be required from holdbacks.

RECOMMENDATION #32: Any areas planted as part of the restoration plan include signage explaining why it is a restoration area to encourage people to avoid damaging it while restoration is taking place. Thorny native plants such as hawthorns should be included in the planting plan as an additional deterrent to human entry.

RECOMMENDATION #33: The monitoring plan should be for a minimum of 3 "cycles." In other words, if planting is in the spring of 2018, the last inspection would occur in the spring of 2021.

RECOMMENDATION #34: Due to the plan to cut tree roots to construct the new road to the Cline property, monitoring of tree health should be for 5 years with a holdback for tree planting or other compensatory mitigation to replace trees killed.

Although EEPAC appreciates that p. 117 EIS 7-2015 recommends that the clock start on the monitoring at 90% build out, EEPAC recommends revised wording.

RECOMMENDATION #35: The monitoring period begin the spring after 90% build out of the single family units or the 3rd spring after construction starts, whichever occurs first.

While EEPAC agrees with monitoring of the anthropogenic impacts (also page 117), the document is short on details of what will be done by who. For example, “warning of fines for unauthorized activities” signage is generally only installed at access points of managed trails. If there are no managed trails, the reminder of fines is an empty warning. It is unclear what mechanism exists to require the proponent to implement measures. What holdbacks will there be? What actions are taken by Development Services? This is particularly a concern because of the “phasing” of the development.

RECOMMENDATION #36: A holding provision be put on the Cline property subject in order to determine what impacts the single family development has had on the ESA prior to permitting the rezoning to come into force and effect. It might be necessary to make alterations to the development or site plans at that time.

THEME 11 - EDUCATIONAL MATERIAL FOR RESIDENTS

Anecdotally, a former EEPAC member who received “educational material” from the homebuilder found that it was included with a great deal of other information a new homeowner received. In other words, it was easy to miss and temporal at best. Therefore, EEPAC recommends for this addition to the standard condition.

RECOMMENDATION #37: In addition to the standard educational brochure, the proponent be required to:

- a. Contribute to the creation of an informational kiosk about the ESA at one or more trail heads nearest (within 50 m) to the development.
- b. Pay for a city mailing of the “Living With Natural Areas” brochure and EEPAC’s “cat” brochure to all property owners 6 months after 70% of the units are occupied.

EEPAC Working Group Comments on Draft Urban Agriculture Strategy

Reviewed by: C. Dyck, E. Dusenge, and J. Stinziano

The document was well-written and thorough. However, some concerns have been identified, and need to be clearly addressed.

Concerns are summarized into five main points:

Pesticides

Foremost, it should be encouraged that the projects be as organic and environmentally sensitive as possible (i.e. no use of chemical fertilizers or pesticides). On city property it would be assumed that pesticides are off limits as the city pushed to ban lawn spraying, etc. However, those requirements should be clearly outlined.

As mentioned in the document (Page 12), the soil tests will be key. Growing food in traditionally urban soils may increase the risk of exposure to industrial pollutants and pesticides/herbicides that may be banned from traditional agriculture.

If using compost on land growing food for consumers, the pesticide load of the compost and its influence on pesticides in the soils it is used on needs to be considered.

Native plant species:

It should be highly encouraged to promote edible native species. This could have several positive outcomes including helping pollinators and preserving knowledge of indigenous plant species that have perhaps been forgotten.

Urban livestock:

Due to the risk of animal-to-human disease transmission, urban livestock rearing should have a health and safety regulatory framework in place BEFORE it is permitted (page 13).

Due to the presence of chicken feed, rats regularly become a problem around chicken coups. Perhaps the city should look into how it would deal with that particular problem as an explosion of rats within the city would not be good.

ESAs

Urban agriculture projects should be separated from ESAs. The minimum distance from ESAs, according to the city regulations, should be taken into account. Potential problems that would arise due to proximity of urban agriculture projects to ESAs include potential invasion of non-native, invasive plant species, and also potential pollution from runoffs with traditional fertilizers and manure. Therefore, the final plan with city regulations may have to be more clear, such that private land owners next to an ESA can't raise any form of livestock or cannot plant certain non-native and invasive species within a certain distance of an ESA.

Human health

There is only minimal consideration for human health impacts from mismanagement of urban agriculture (e.g. soil pollutants, animal-to-human disease transmission, pesticides in composting materials). There really should be more consideration of these impacts in the document.

Boler Mountain Access Road Environmental Impact Study

Site Plan EIS dated December 20, 2016 (revised August 2017), received by EEPAC August 24, 2017.

Reviewer: R. Trudeau

Submitted: September 28, 2017, EEPAC Meeting

Introduction

Boler Mountain is an important natural and recreation area within the City of London. The 'Access Road' will facilitate the long-term vision outlined in the Boler Mountain Strategic Business Plan (January 2013). The 'Access Road' will cross ER lands (significant woodlands), a designated potential ESA and a significant stream corridor. The construction of the road will be the first step in an effort to balance the conservation of natural heritage features and the creation of an attractive recreation facility.

Southdale Road and Wickerson Road Upgrade

There is existing road access to the south end of Boler Mountain from Southdale Road. Southdale Road and the lower section of Wickerson Road will be widened and leveled to replace the 'country' road now in existence. This roadwork, scheduled for the near future, will make the existing road access unusable.

2426 Wickerson Road and Area

A parcel of 2426 Wickerson Road was severed and conveyed to Boler Mountain. This severed land was then zoned OS5 with part of the parcel included in the designated potential ESA. The land that the 'Access Road' crosses was then rezoned OS2. An easement from Wickerson Road across the retained '2426' land completes the connection between Wickerson Road and the Boler Mountain property. Just north of the east end of the 'Access Road', there exists a new SWM facility and a parcel of land zoned AG1. Further to the north, the Wickerson Woods subdivision is being built.

Significant Stream Corridor and Woodlands

The 'Access Road' will cross a tributary of Dingman Creek. This tributary is a significant stream corridor. Fish have not been observed in it. A culvert will be inserted to provide flow under the 'Access Road'.

Roughly 263 trees comprising 12 species exist along the construction zone; 85 trees with DBHs ranging from 12-30 cm will be removed; 170 trees with DBHs ranging from 1-5 cm will be planted to replace the lost vegetation. A Woodland Seed Mix will be dispersed to promote native vegetation.

Several Candidate Significant Wildlife Habitats were identified within the study area, but could not be confirmed. These include: raptor wintering area, woodland raptor nesting habitat and woodland area-sensitive bird breeding.

Impacts

The potential impacts which may result from the proposed 'Access Road' construction are minor compared to what has already happened in the area. Human clearing for agricultural land use has fragmented portions of the natural heritage features. Edges created by clearing are dominated by invasive species. A newly constructed SWM facility adjacent to the road

construction has drastically changed the area. Restoration initiatives should offset any negative impact the road construction will have.

Boler Mountain Strategic Business Plan and The Proposed ESA

As was mentioned in the introduction, the 'Access Road' is the first step towards proposed changes to the area. The Boler Mountain Strategic Business Plan (January 2013) includes the expansion of skiing onto the 'backside' of Boler Mountain and the addition of a unique mountain bike venue. In a Boler Mountain 'Open House' presentation, this venue included a building on the southwest area of the property.

While recreation facilities expand south, the city hopes to expand the Lower Dingman ESA north. This ESA sits about one kilometre south of Southdale Road, with significant unevaluated woodland between it and Southdale Road. The designated proposed expansion of this ESA is north of Southdale Road, encompassing significant woodlands on the south end of Boler Mountain recreation facility. ESAs allow passive recreational use while mountain biking and skiing are highly active and aggressive. A carefully managed approach is necessary to preserve this ESA expansion.

Mountain Bike Trails in an ESA

Mountain-bike trails criss-cross the potential ESA, present in both the NR1 and NR2 zones. Restoration has been suggested to rejuvenate the existing service road and somehow downgrade the existing trails to Level 1 trails. Even though these trails are managed, they exhibit considerable impact on the area. The trails are wider than Level 1 trails and are mowed regularly on each side. Undulations are built into flat sections to provide variety. Turns are heavily banked so bikers can maintain a preferred speed. When erosion exposes root systems, the trail is diverted elsewhere.

Giving up this parcel, when Boler Mountain wants to enhance its mountain-bike venue, will challenge the organization's creativity.

The Bike Pathway Plan

The 'Access Road' has been called a driveway and a recreational trail in documents related to this project. Will the 'Access Road' be gated at Wickerson Road? Once cyclists begin using it to access Boler Mountain, is there adequate parking along Wickerson Road? Wickerson Road is being upgraded with some roadside parking but the road is also becoming popular as a throughway travelling west to Southdale Road. This congestion will continue until the Southdale Road/Westel Bourne Road connection is upgraded.

The proposed multiuse pathway would extend southward from the existing pathway at Ironwood Road and connect to the new 'Access Road'. This combined pathway will run along the northern boundary of the proposed ESA expansion, with passage through cultural communities CUW1 and CUT1 and descend through a FOD5-1 woodland. The significant woodland is moderately steep. The pathway would then follow the south side of the existing SWM facility, up to an access road which would make a final connection to the community of Optimist Park Drive. A bridge over the SWM outlet stream might be necessary.

The Bicycle Master Plan for the City of London currently shows the path connecting to the existing service road and terminating at Southdale Road. This connection to a narrow 'country' road was deemed too dangerous. (Boler Mountain Land Status Report, November 2012). However this narrow 'country' road will be upgraded soon to an 'urban' road with bike lanes and/or a multiuse pathway.

Safety Concerns for Cyclists

The multiuse pathway across the northern boundary of the proposed ESA would cross over several mountain-bike trails. Collisions between the 'cycling' public and mountain bikers will occur. For the bikers, it is an aerobic activity and so speed is important. For cyclists, discovering a network of trails, might entice them to leave the multiuse pathway and explore the varied terrain.

A snowmaking reservoir is located north of the proposed pathway on the west edge of the property. The reservoir is extremely deep and steep-sided; shaped like a 'gravy boat'. A swale (recently built) runs along the west base of Hill 2000 collecting rainwater off the mountain and directing it into the reservoir. This added feature will increase water levels in the reservoir. Increased uncontrolled public access to Boler Mountain will require that the reservoir is fenced.

Both of these concerns would be somewhat reduce if the current Bicycle Master Plan is followed. However, that would mean a multiuse pathway would have to traverse the proposed ESA.

Summary

This report was designed to show support for the Boler Mountain Access Road EIS, but more importantly, to generate a discussion about the potential changes to the area.