Environmental and Ecological Planning Advisory Committee Report

7th Meeting of the Environmental and Ecological Planning Advisory Committee
June 21, 2018
Committee Rooms #1 and #2

Attendance

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

ALSO PRESENT: C. Creighton and A. Macpherson

REGRETS: A. Boyer, E. Dusenge, C. Evans, C. Kushnir and S. Madhavji

The meeting was called to order at 5:05 PM

1. Call to Order

1.1 Disclosures of Pecuniary Interest

That it BE NOTED that no pecuniary interests were disclosed.

2. Scheduled Items

None.

3. Consent

3.1 6th Report of the Environmental and Ecological Planning Advisory Committee

That it BE NOTED that the 6th Report of the Environmental and Ecological Planning Advisory Committee, from its meeting held on May 17, 2018, was received.

3.2 5th Report of the Trees and Forests Advisory Committee

That it BE NOTED that the 5th Report of the Trees and Forests Advisory Committee, from its meeting held on May 23, 2018, was received.

3.3 Municipal Council Resolution - 5th Report of the Environmental and Ecological Planning Advisory Committee

That it BE NOTED that the Municipal Council resolution adopted at its meeting held on May 8, 2018, with respect to the 5th Report of the Environmental and Ecological Planning Advisory Committee, was received.

4. Sub-Committees and Working Groups

4.1 William Street Storm Sewer Outfall (EIS)

That, the attached Working Group comments with respect to the William Street Storm Sewer Outfall Environmental Impact Statement BE FORWARDED to P. Yanchuk, Engineer in Training, for review and consideration.

5. Items for Discussion

5.1 Southdale Road West Environmental Assessment Study - Notice of Public Information Centre #2

That B. Huston, Project Manager, Dillon Consulting, BE ADVISED that the Environmental and Ecological Planning Advisory Committee (EEPAC) requests to be a participant in the review of the detailed design documents on the Subject Land Status Report for the Southdale Road West Environmental Assessment Study; it being noted that the EEPAC reviewed and received the following with respect to this matter:

- a Notice of Public Information Centre #2 from B. Huston, Project Manager, Dillon Consulting Limited and T. Koza, Transportation Design Engineer;
- slides from the public information centre held on May 31, 2018; and,
- the attached communication dated June 6, 2018, from B. Huston, Project Manager, Dillon Consulting Limited.

5.2 Broughdale Dyke Environmental Assessment

That P. Adams, Environmental Planner or A. Spargo, Project Manager, AECOM Canada, BE REQUESTED to attend a future meeting of the Environmental and Ecological Planning Advisory Committee (EEPAC) to present the Environmental Impact Study for the Broughdale dyke, when it is ready to be reviewed by the EEPAC; it being noted that the EEPAC reviewed and received the Notice of Public Information Centre with respect to this matter.

5.3 City of London - Long Term Storage - Municipal Class Environmental Assessment

That it BE NOTED that the City of London Long Term Water Storage Municipal Class Environmental Assessment Notice of Project Commencement and Public Information Centre #1, was received.

5.4 Parks and Recreation Master Plan Update - Discussion

That, further to the presentation to the Environmental and Ecological Planning Advisory Committee (EEPAC) with respect to the Parks and Recreation Master Plan update, the Civic Administration BE ADVISED that the EEPAC would like guidance as to how to assist staff to achieve the objective to, "improve awareness and understanding about the importance of the City's natural heritage system, the city's urban forest and their broader role within Carolinian Canada" as noted in the Master Plan; it being noted that this is in alignment with the EEPAC mandate.

5.5 Hydrogeological Desktop Study - Sunningdale Court

That the attached issues identified in the review of the Hydrogeological Desktop study for Sunningdale Court BE REFERRED to the Civic Administration for review and consideration.

5.6 Detailed Design Stage - 3612 and 3630 Colonel Talbot Road and 6621 Pack Road

That the attached, revised, Working Group comments with respect to the properties located at 3612 and 3630 Colonel Talbot Road and 6621 Pack Road BE FORWARDED to N. Pasato, Senior Planner, for review and consideration; it being noted that the Environmental and Ecological Planning Advisory Committee will provide hydrogeological comments at its next meeting.

5.7 Draft London Rapid Transit Environmental Impact Study - General Response to Comments from Environmental and Ecological Planning Advisory Committee

That it BE NOTED that the communication dated June 7, 2018, from J. Ramsay, Project Director, Rapid Transit, with respect to the response to the Environmental and Ecological Planning Advisory Committee Working Group comments, relating to the draft London Rapid Transit Environmental Impact Study, were received.

5.8 Summer Meeting Schedule

That it BE NOTED that the Environmental and Ecological Planning Advisory Committee will meet on July 19 and August 16, 2018.

6. Deferred Matters/Additional Business

6.1 (ADDED) ESA Management Committee Meeting Minutes

That it BE NOTED that the ESA Management Committee Meeting minutes from its meeting held on April 25, 2018, were received.

7. Adjournment

The meeting adjourned at 6:45 PM.

Environmental and Ecological Planning Advisory Committee Report

The 6th Meeting of the Environmental and Ecological Planning Advisory Committee
May 17, 2018
Committee Rooms #1 and #2

Attendance

PRESENT: S. Levin (Chair), A. Boyer, C. Dyck, C. Evans, P. Ferguson, S. Hall, N. St. Amour, S. Sivakumar and R. Trudeau and H. Lysynski (Secretary)

ALSO PRESENT: D. Baxter, C. Creighton, T. Copeland, A. Macpherson, J.P. McGonigle, L. Pompilii and P. Yanchuck

REGRETS: E. Arellano, E. Dusenge, B. Krichker, C. Kushnir, S. Madhavji, K. Moser, C. Therrien and I. Whiteside

The meeting was called to order at 5:30 PM

1. Call to Order

1.1 Disclosures of Pecuniary Interest

That it BE NOTED that no pecuniary interests were disclosed.

2. Scheduled Items

2.1 Overview of the Parks and Recreation Master Plan update

That it BE NOTED that the Environmental and Ecological Planning Advisory Committee (EEPAC) received the ~~attached~~ presentation from D. Baxter, Manager of Development, Neighbourhood, Children & Fire Services and J.P. McGonigle, Division Manager, Parks and Recreation, with respect to an overview of the Parks and Recreation Master Plan; it being noted that the EEPAC will provide comments at their next meeting.

2.2 William Street Stormwater Outfall and Channel in Huron Street Woods

That it BE NOTED that the Environmental and Ecological Planning Advisory Committee (EEPAC) received the ~~attached~~ presentation from S. Stanlake-Wong, Associate, J. Johnson, Dillon Project Manager and T. Goulet, Project Biologist, Dillon Consulting, with respect to the William Street Stormwater Outfall and Channel in Huron Street Woods; it being noted that the EEPAC will establish a Working Group and provide comments at their next meeting.

3. Consent

3.1 5th Report of the Environmental and Ecological Planning Advisory Committee

That it BE NOTED that the 5th Report of the Environmental and Ecological Planning Advisory Committee, from its meeting held on April 19, 2018, was received.

3.2 4th Report of the Trees and Forests Advisory Committee

That it BE NOTED that the 4th Report of the Trees and Forests Advisory Committee, from its meeting held on April 25, 2018, was received.

3.3 6th Report of the Advisory Committee on the Environment

That it BE NOTED that the 6th Report of the Advisory Committee on the Environment, from its meeting held on May 2, 2018, was received.

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

That it BE NOTED that the Municipal Council resolution adopted at its meeting held on April 10, 2018, with respect to the 4th Report of the Environmental and Ecological Planning Advisory Committee, was received.

3.5 3614, 3630 Colonel Talbot Road and 6621 Pack Road

That a Working Group BE ESTABLISHED, consisting of S. Levin (lead), S. Sivakumar and R. Trudeau to review the Environmental Impact Study and Hydrogeological Study, relating to the properties located at 3614, 3630 Colonel Talbot Road and 6621 Pack Road; it being noted that the Environmental and Ecological Planning Advisory Committee reviewed and received communications dated May 7 and May 15, 2018, from N. Pasato, Senior Planner, with respect to this matter.

4. Sub-Committees and Working Groups

4.1 Wetlands

That, the following actions be taken with respect to the ~~attached~~ Wetlands Working Group comments:

a) the Working Group comments with respect to a wetland conservation strategy BE FORWARDED to the Upper Thames River Conservation Authority, the Manager, Development Planning and one of the City's Ecologists, for review and to provide comments back to the Environmental and Ecological Planning Advisory Committee; and,

b) the Environmental and Ecological Planning Advisory Committee members BE REQUESTED to review the Working Group comments and report back at the next meeting.

4.2 Southdale Road West Environmental Impact Statement

That the ~~attached~~ Working Group comments with respect to the Southdale Road West Environmental Impact Statement BE FORWARDED to S. Shannon, Technologist II, for consideration.

4.3 Sunningdale Court

That the ~~attached~~ Working Group comments with respect to the Sunningdale Court Environmental Impact Statement (600 Sunningdale Road West) BE FORWARDED to C. Smith, Senior Planner, for consideration.

5. Items for Discussion

5.1 Notice of Completion - Master Plan - London Pollution Prevention and Control Plan

That it BE NOTED that the Notice of Completion relating to the London Pollution Prevention and Control Plan Master Plan from M. McKillop, Wastewater and Drainage Engineering and T. Mahood, Project Manager CH2M, was received.

6. Deferred Matters/Additional Business

6.1 (ADDED) One River Master Plan Environmental Assessment Study - Notice of Stage 2 Public Information Centre

That it BE NOTED that the One River Master Plan Environmental Assessment Study Notice of Stage 2 Public Information Centre, from A. Rammeloo, Manager, Engineering, Rapid Transit and T. Mahood, Project Manager, Jacobs, was received.

7. Adjournment

The meeting adjourned at 7:16 PM.

Trees and Forests Advisory Committee

Report

5th Meeting of the Trees and Forests Advisory Committee
May 23, 2018
Committee Room #3

Attendance

PRESENT: R. Mannella (Chair); T. Khan, J. Kogelheide, C. Linton, N. St. Amour and M. Szabo and J. Bunn (Acting Secretary)

ABSENT: C. Haindl, G. Mitchell and R. Walker

ALSO PRESENT: A. Macpherson, M. Morris, J. Ramsay and S. Rowland

The meeting was called to order at 12:15 PM.

1. Call to Order

1.1 Disclosures of Pecuniary Interest

That it BE NOTED that no pecuniary interests were disclosed.

2. Scheduled Items

2.1 Parks and Recreation Master Plan Update

That the following actions be taken with respect to the Parks and Recreation Master Plan:

a) it BE NOTED that the ~~attached~~ presentation from A. Macpherson, Environmental and Parks Planning, with respect to this matter, was received; and,

b) a Working Group BE ESTABLISHED, consisting of T. Khan, M. Szabo and A. Morrison, to review the Parks and Recreation Master Plan and report back at the June meeting of the Trees and Forests Advisory Committee, with input on the above-noted plan.

2.2 Complete Streets Update

That it BE NOTED that the ~~attached~~ presentation from M. Morris, Engineer-in-Training, with respect to an update on the Complete Streets project, was received.

3. Consent

3.1 4th Report of the Trees and Forests Advisory Committee

That it BE NOTED that the 4th Report of the Trees and Forests Advisory Committee, from its meeting held on April 25, 2018, was received.

3.2 Municipal Council Resolution - 3rd Report of the Trees and Forests Advisory Committee

That it BE NOTED that the Municipal Council resolution, from its meeting held on April 24, 2018, with respect to the 3rd Report of the Trees and Forests Advisory Committee, was received.

4. Sub-Committees and Working Groups

None.

5. Items for Discussion

5.1 Green Legacy Update

That it BE NOTED that the ~~attached~~ presentation from A. Cantell, ReForest London, with respect to the Green Legacy Project, was received.

5.2 Trees Located at Southdale Road and Wharncliffe Road South

That it BE NOTED that the Trees and Forests Advisory Committee heard a verbal update on the trees located at the corner at Southdale Road and Wharncliffe Road South from A. Macpherson, Manager, Environmental and Parks Planning.

5.3 Clarification of Meeting Agenda Submission Process

That it BE NOTED that the Trees and Forests Advisory Committee held a general discussion with respect to the process for submitting items for the committee agendas.

6. Deferred Matters/Additional Business

None.

7. Adjournment

The meeting adjourned at 1:40 PM.

P.O. Box 5035
300 Dufferin Avenue
London, ON
N6A 4L9

May 9, 2018

N. Pasato
Senior Planner

K. Oudekerk
Environmental Service Engineer

J. Ramsay
Project Director, Rapid Transit

P. Titus
Senior Technologist

I hereby certify that the Municipal Council, at its meeting held on May 8, 2018 resolved:

That, the following actions be taken with respect to the 5th Report of the Environmental and Ecological Planning Advisory Committee from its meeting held on April 19, 2018:

a) part b) of clause 2.2 of the 4th Report of the EEPAC BE AMENDED to read as follows:

"b) the Environmental Study Report BE REQUIRED to be included in the Request for Proposal";

b) N. Pasato, Senior Planner, BE REQUESTED to attend the next Environmental and Ecological Planning Advisory Committee (EEPAC) meeting and provide a written report with respect to the following, related to the Subject Land Status Report on the properties located at 3614, 3630 Colonel Talbot Road and 6621 Pack Road:

i) the current status of the Subject Land Status Report;

ii) the current status of the Environmental Impact Study;

iii) what other studies are currently being undertaken and the time line for their completion;

iv) what studies are yet to be undertaken as part of the application and detail design; and,

v) how EEPAC will be involved in the review of these studies;
it being noted that the EEPAC received a communication dated January 23, 2018, from Natural Resource Solutions Inc., with respect to this matter;

c) the Civic Administration BE REQUESTED to provide an electronic copy of the South London Wastewater Servicing Study to the Environmental and Ecological Planning Advisory Committee for its consideration;

The Corporation of the City of London
Office 519.661.2500 x4856
Fax 519.661.4892
hlysynsk@london.ca
www.london.ca

d) the Working Group comments appended to the 5th Report of the Environmental and Ecological Planning Advisory Committee and dated April, 2018 with respect to the Bus Rapid Transit Environment Information Session review and recommendations BE FORWARDED to the Project Director, Rapid Transit, for consideration;

e) the Working Group comments appended to the 5th Report of the Environmental and Ecological Planning Advisory Committee with respect to the Parker Stormwater Management Facility, Water Balance report BE FORWARDED to P. Titus, Senior Technologist, for consideration; and,

f) the following actions be taken with respect to the Notice of Planning Application for a draft Plan of Subdivision and Zoning By-law Amendment for the property located at 600 Sunningdale Road West appended to the 5th Report of the Environmental and Ecological Planning Advisory Committee:

i) a Working Group BE ESTABLISHED consisting of S. Levin and C. Dyck to review and report back at the next Environmental and Ecological Planning Advisory Committee meeting with respect to this matter; and,
ii) C. Smith, Senior Planner, BE REQUESTED to provide an electronic copy of the hydrogeological study with respect to this property to the EEPAC; and,

g) clauses 1.1, 2.1, 3.2, 3.4, 3.6 to 3.9, 4.2, 5.1, 5.2 and 6.2 BE RECEIVED. (2.1/8/PEC)

C. Saunders
City Clerk
/lm

cc. Chair and Members, Environmental and Ecological Planning Advisory Committee

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EIS (Draft) WILLIAM STREET STORM SEWER OUTFALL IMPROVEMENTS

Dillon Consulting, April 2018, received by EEPAC at its May 2018 meeting

Reviewers: S. Levin, Dr. K. Moser, C. Therrien

INVASIVE SPECIES

It is interesting to note that Dillon points out on page 9 the "coverage of several other non-native and/or invasive species typically associated with areas of cultural disturbance, such as trails and pathways. "

EEPAC is concerned that despite being in the study area, and despite the opportunity noted by Dillon on page 28, the area north of the channel works will not have an invasive species management plan (according to wastewater staff at the May EEPAC meeting). Given the pervasive buckthorn in this area, EEPAC is concerned that restoration works on the south side of the channel (currently Shallow Water Aquatic) will fail over time.

As well, phragmites is beginning to establish itself in this area. It is critical to deal with this within the project scope.

RECOMMENDATION 1: The proposed Invasive Species Management Plan mentioned on page 28 of the EIS include a buckthorn herbiciding program within the project budget for the city lands north of the channel within the study area.

RECOMMENDATION 2: The proposed Invasive Species Management Plan include eradication of phragmites.

RECOMMENDATION 3: The project budget include sufficient funds for monitoring of at least 5 years of the success of the site restoration and invasive species removal and control programs.

RECOMMENDATION 4: EEPAC receive the Plan for review and annually, receive a report on the progress of the implementation of the Invasive Species Management Plan.

EEPAC has yet to see any invasive species management plans despite many have been included as "to be developed and implemented" in many an EIS. Given this is a City project, there is an opportunity for EEPAC to provide its expertise in this matter as one of the current members of EEPAC is a PhD in plant biology and has extensive experience with management of some invasive species.

AQUATIC HABITAT

EEPAC supports the upgrading of the culvert under the TVP to four culverts of a larger size. This will greatly benefit fish. However, it is unclear why there is no recommendation to clear the blockage of Huron Creek that exists 550-560 m from the outfall (see page 15). Although it is outside the study area, there is no clear reason why

the blockage should remain. Removing it would result in a positive impact rather than "none" as shown in the Impact Assessment on page 23.

RECOMMENDATION 5: The culvert that is 90% by debris be cleared as this will remove a barrier to fish passage and regular inspections take place to ensure the culvert remains clear.

EEPAC is concerned that it appears that no water quality measurements have been taken of the Thames downstream of photo site10. Measurements of water quality at high flows and low flows pre-construction and post-construction would demonstrate either no change or improvement particularly given the spiny soft shell turtle habitat downstream. This EIS focuses on the area directly affected, but will undoubtedly impact areas downstream of the input to the Thames. This needs to be considered as Huron Creek does not stop where the study area stops.

RECOMMENDATION 6: The project include monitoring of water quality in the Thames pre and post construction for a period including three years from the conclusion of the separation of the combined sewer.

MIGRATORY BIRDS

It is unclear to EEPAC why migratory bird surveys were not done. Orioles and rose breasted grosbeak nest in the area, and a variety of aquatic birds such as blue herons, American bittern, Green herons and Bald Eagles have been observed in the area.

RECOMMENDATION 7: EEPAC would appreciate a response from a City Ecologist on this matter.

BEAVERS

If beavers return to the area, will the City implement its current protocol for beavers? Dead beavers were noted in the area by an EEPAC member in the early spring of 2017 at or near photo site 9.

AMPHIBIAN SURVEYS

It is unclear why only one amphibian survey spot selected. This is inconsistent with the Marsh Monitoring Protocol. There are many frogs in the area - you can hear them and see tadpoles.

MAP 5 DESIGNATION

EEPAC continues to believe that the entire area west of Adelaide as studied by Dillon and by Duggan should be included in Map 5 as ESA.

EIS (Draft) WILLIAM STREET STORM SEWER OUTFALL IMPROVEMENTS

Dillon Consulting, April 2018, received by EEPAC at its May 2018 meeting

Reviewers: S. Levin, Dr. K. Moser, C. Therrien

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MAP 5 DESIGNATION

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Southdale Road West
Environmental Assessment Study

Notice of Public Information Centre #2

The City of London is undertaking a Class Environmental Assessment (EA) study for improvements to Southdale Road West (between Byron Hills Drive and Wickerson Road) and Wickerson Road (from Southdale Road West to 650m north of Southdale Road West). The study has developed and evaluated various design options for improving these roads, as well as providing for other required infrastructure improvements.

Following Public Information Center (PIC) 1 held on March 3, 2017, alternative designs for road and related infrastructure improvements were evaluated and a preferred alternative solution chosen. A second PIC will be held on **May 31, 2018**, to present the preferred design option. The PIC display materials will be available for review on the City of London website, starting on **June 1, 2018**.

Public Information Centre #2	
Date:	May 31, 2018
Time:	4:00 p.m. – 7:00 p.m.
Location:	Byron United Church 420 Boler Road
Format:	Informal Drop-in Session

Information collected for the study will be used in accordance with *the Municipal Freedom of Information and Protection of Privacy Act.* Except for personal information, including your name, address and property location, all comments received throughout the study will become part of the public record and included in project documentation.

For More Information: For more information, to provide comments or to be added to the mailing list, please visit www.london.ca or contact:

Brian Huston, P.Eng.
Project Manager
Dillon Consulting Limited
130 Dufferin Avenue, Suite 1400
London, Ontario, N6A 5R2

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Email: bhuston@dillon.ca

Ted Koza, P.Eng.
Transportation Planning and Design
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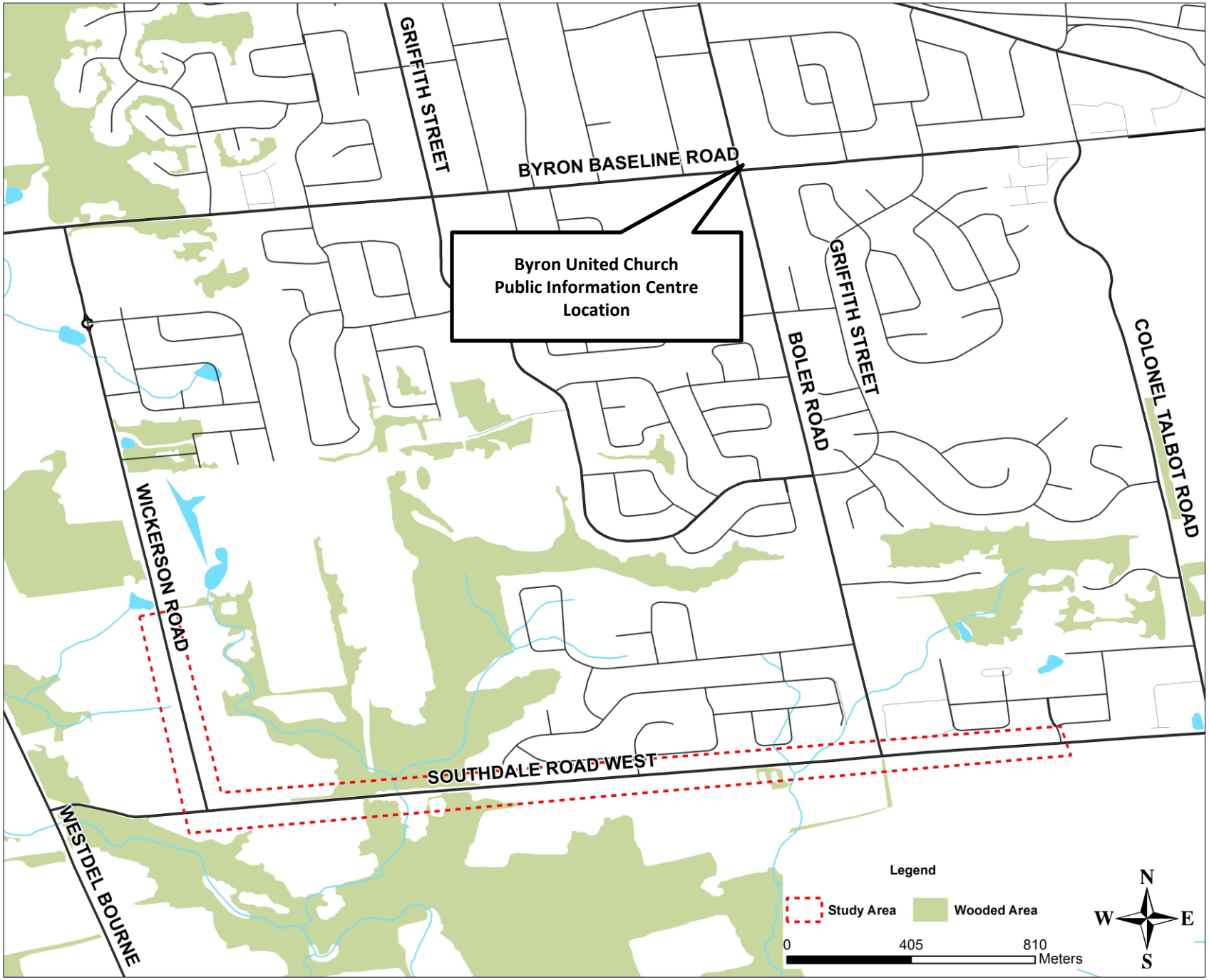
GRIFFITH STREET
BYRON BASELINE ROAD
Byron United Church
Public Information Centre
Location
GRIFFITH STREET
BOLER ROAD
COLONEL TALBOT ROAD
WICKERSON ROAD
SOUTHDALE ROAD WEST
WESTDEL BOURNE
Legend
Study Area
Wooded Area
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SOUTHDALE ROAD WEST

Environmental Assessment Study

PUBLIC INFORMATION CENTRE 2

May 31, 2018

DILLON CONSULTING

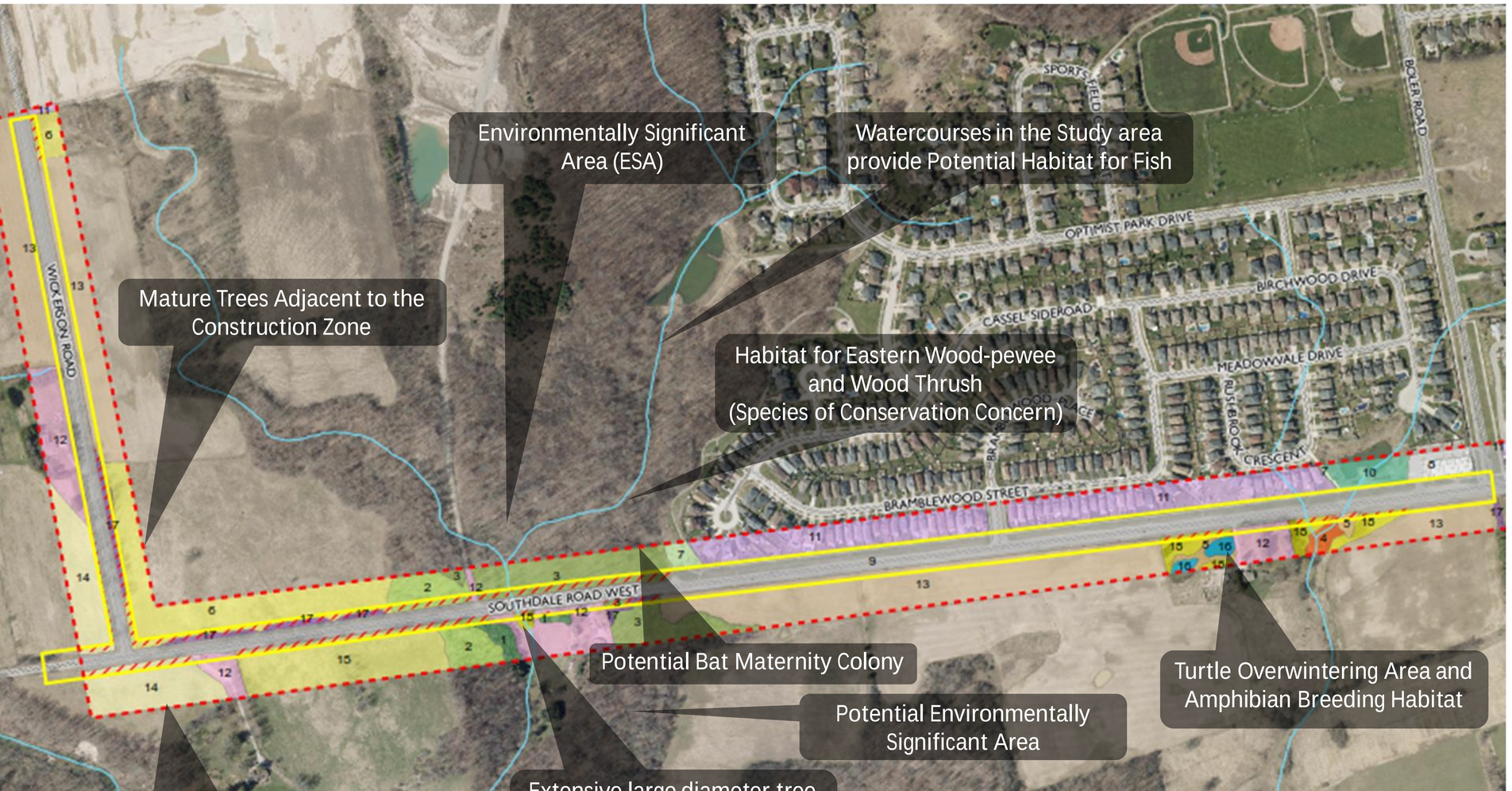
London CANADA

NATURAL HERITAGE FEATURES

An Environmental Impact Study was completed to understand natural heritage features in the Study Area, including existing aquatic, terrestrial and wildlife conditions.

Natural Heritage features outside of the impacted areas will be mitigated. Strategies for mitigating these impacts are outlined in the next slide.

Impacted Areas



LEGEND

1. Naturalized Coniferous Plantation
2. Dry-Fresh Sugar Maple-Oak Deciduous Forest
3. Dry Fresh Sugar Maple- Oak Deciduous Forest
4. Common Reed Graminoid Mineral Meadow Marsh
5. Cattail Graminoid Mineral Meadow Marsh
6. Dry-Fresh Mixed Meadow
7. Greenlands
8. Business Sector
9. Transportation
10. Sewage and Water Treatment
11. Single Family Residential
12. Rural Property
13. Annual Row Crops
14. Perennial Cover Crop
15. Open Pasture
16. Open Aquatic
17. Fencerow
18. Fresh-Moist Mixed Meadow

MITIGATING IMPACTS TO NATURAL HERITAGE FEATURES

The following mitigation measures are recommended to reduce impacts to natural heritage features in the construction zone:

During Detailed Design	• Create a Tree Preservation Plan, including tree protection fencing and removal timing guidelines and compensation planting plans including compensation ratio's to be used for planting • Develop Invasive Species Management Plan to target invasive flora • Develop Edge Management and Compensation Planting Plan, including compensation ratio • Develop Erosion and Sediment Control Plan • Develop Wildlife Impact Mitigation Plan • Investigate low impact development techniques
Prior to Construction	• Vegetation removals should take place outside of active season for birds and bats • Invasive species removal
During Construction	• Minimize area of disturbance and avoid sensitive vegetation and in-water work • Necessary in-water work will be completed timing windows for fish • Sediment and erosion control measures • Incorporate wildlife impact mitigation measures • Develop an environmental monitoring plan, including monitoring in areas where impacts to wildlife are possible and erosion and sediment control measures are undertaken • Contractors should receive SAR training
Following Construction	• Planting of new trees to compensate for tree removals required for construction. Trees should be monitored to ensure health and survival • Develop monitoring plan

June 6, 2018

DILLON CONSULTING

Confidential

Sent via email

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Corporation of the City of London
Environmental and Engineering Services
300 Dufferin Avenue, 8th Floor
London, Ontario
N6A 4L9

Attention: Mr. Sam Shannon, CET
Project Manager

Response to EEPAC Comments for Southdale Road West, Class Environmental Assessment Study – Subject Lands Status Report and Environmental Impact Study

Dear Mr. Shannon:

It is our understanding that the Southdale Road West, Class Environmental Assessment (EA) Study – Subject Lands Status Report and Environmental Impact Study (SLSR/EIS) was provided to the City of London's (the City) Environmental and Ecological Planning Advisory Committee (EEPAC) for review and comment. A document was provided to the City from EEAC dated May 9, 2018, listing several themed comments and accompanying recommendations. Dillon Consulting Limited (Dillon) has reviewed these comments and prepared the following responses.

Comments Provided

Theme #1 – Bat Habitat (Recommendations #1 and #2)

As indicated under Section 5.5 of the SLSR/EIS, the entire woodland area to the north and south of the Southdale Road West right-of-way (ROW) was not assessed for cavity/snag density due to lack of access. On this basis, the feature is being treated as significant bat maternity colony habitat. In order to confirm significance, the City would require access to the woodland both north and south of Southdale Road West to undertake cavity/snag density surveys, which would be required to be undertaken during the leaf-off period (i.e., November to April) and not during the month of June when cavities could be obscured by leaf cover. Even if the density of cavity/snag trees is below the >10 trees/ha threshold for significance, woodland habitat still may be considered habitat for Species at Risk (SAR) bat species.

As indicated under Section 7.1.1 of the SLSR/EIS, Tree Cavity Assessments are to be performed on trees during the leaf-off period (e.g., fall and early spring) to confirm if suitable cavities for bats are present. Tree Cavity Assessments follow the criteria for

cavities as outlined in the MNRF documents, *Bat and Bat Habitat: Guidelines for Wind Power Projects*, (OMNR, 2011) and the *Bat and Bat Habitat Surveys of Treed Habitat Protocol*, (MNR 2014). Trees will be identified for removal during the Detailed Design stage. If potential cavities for bats are confirmed, consultation with the MNRF would be undertaken to outline the City's approach to mitigating removal of potential bat habitat (e.g., timing windows, installation of bat boxes). Through consultation, the MNRF may require acoustic surveys to confirm use by bats during the appropriate season (June) prior to removal of trees.

In our experience and based on recent MNRF regional guidance to the district offices, if tree removal can take place during the non-active season for bats, further surveys (e.g., cavity/snag and/or acoustic) may not be required. This approach can be confirmed with the local district office as part of continuing agency consultation during Detailed Design.

Theme #2 – Western Tributary and Culvert under Southdale Road (Recommendations #3 and #4)

A key recommendation from the current EA is to undertake a separate study of this tributary, to assess the current erosion issues in the tributary and make appropriate recommendations. Subject to the recommendations of this future study, it is recommended that the existing culvert size be maintained, to avoid changing the existing hydraulic conditions and flow characteristics downstream of Southdale Road. There is a small culvert downstream, outside of the Study Area, which also appeared to pose a barrier to fish migration. During Detailed Design, options will be considered for fish passage improvements including the lowering of water velocities to provide a net positive effect compared to existing conditions. Options for fish passage prepared as part of the Detailed Design stage will be reviewed with the Upper Thames River Conservation Authority (UTRCA) and applicable landowners.

Theme #3 – Wetland Management – Avoid, Minimize, Mitigate, Compensate (Offset) (Recommendations #5 - #8)

Consideration for long-term mitigation of the wetland features will be considered as part of Detailed Design. Further baseline information would require access onto the private property where the majority of the two feature's area is contained. Currently, the ecological land classification information does provide baseline information such as vegetation and abundance.

Further consultation with landowners is to be undertaken during Detailed Design which is to include considerations for enhancement of the valley corridor that leads from the eastern tributary outlet under Southdale Road West to Dingman Creek. If it is confirmed that avoidance of the wetland features is not possible through detailed design, the UTRCA will be consulted as a permit may be required from the UTRCA.

Theme #4 – Enhancing Wildlife Movement across Southdale Road (Recommendations #9 and #10)

Inclusion of a crossing structure in the design is to be explored and refined during Detailed Design. Crossing options may include a structure suitable for small to medium terrestrial wildlife located east or west from the drainage culvert.
As outlined in the London Plan, the project Study Area is located on the City of London Urban Growth Boundary. The goal of the London Plan is to create a more compact city that is less reliant on transportation and encourages citizens to reduce reliance on cars. Because of this focus, and the lands south of the Study Area being outside of Urban Growth Boundary, there is no need to explore further widening or protection of land for transportation use at this time. Acquisition of property beyond the scope of the road improvement works is not included in the scope of this project. The improvements have been designed to meet the street classification design features laid out on Table 6 of the London Plan.

Theme #5 – Tree Removal and Compensation (Recommendations #11 - #13)

It should be noted that the area of potential impact, as presented in the SLSR/EIS, is based on preliminary design of the preferred option. As the project enters the Detailed Design stage, there may be opportunities to reduce the amount of vegetation removal required. The inventory of trees undertaken as part of the SLSR/EIS is to be used to inform the Detailed Design of the road improvements with a focus on reducing the number of trees to be removed.

Compensation plans are included as part of Detailed Design for when the exact number of trees to be removed is known. Areas for potential naturalization have been identified on Map 5 of the London Plan in proximity to the woodland areas and would be the focus for compensation/restoration plantings. Local landowners adjacent to the woodland areas have also expressed interest in having plantings occur on their properties. Further consultation with landowners is to occur during Detailed Design. Also note, the Net Effects table, presented in the SLSR/EIS, indicates an overall Low Net Effect due to the loss of trees and vegetation which is to be mitigated through a greater number of trees planted to compensate for this impact.

Theme #6 – Provincially Significant Bird Species (Recommendation #14)

Removal of <30 ha of Eastern Meadowlark habitat is permitted under *Endangered Species Act*, 2007 as long as proper authorization is received from the MNRF in the form of registration confirmation. As part of this registration, compensation habitat is to be established prior to habitat removal. Consultation with landowners is an on-going process. The area of habitat potentially removed accounts for 0.5 ha in the form of thin linear areas adjacent to the Southdale Road West ROW. Removal of this small area of habitat would not be expected to detract Eastern Meadowlark from continuing to use the habitat.

Theme #7 – An Aggressive Invasive Species Strategy (Recommendation #15)

As the majority of European Common Reed is located on private property, control of this invasive species would require further consultation and cooperation with the landowner which is currently outside of the scope of a Class EA and subsequent SLSR/EIS. An Invasive Species Management Plan is to be prepared as part of the Detailed Design which will focus on pre-construction treatments to avoid further spread of the species.

We appreciate the comments and recommendations provided by EEPAC, which further inform the potential impacts and mitigation measures recommended for the project.

Sincerely,

DILLON CONSULTING LIMITED

Brandon Fox, BES
for Brian Huston, P.Eng.
Project Manager

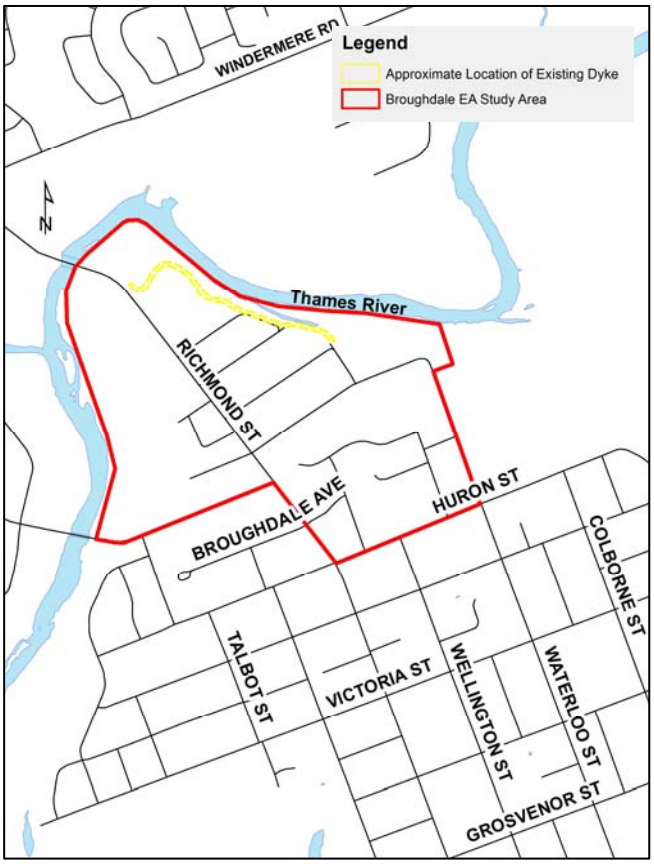
JWH:tfk

Our file: 16-4360

NOTICE OF PUBLIC INFORMATION CENTRE

THE STUDY

The Upper Thames River Conservation Authority (UTRCA) and the City of London have initiated a Schedule B Municipal Class Environmental Assessment (EA) Study through its consultant AECOM. The focus of the study is to review ways to manage and improve the Broughdale dyke. The alternatives include regular maintenance, erosion protection, reconstruction of the dyke, increasing the height of the dyke, and extending the dyke upstream.



A Public Information Center (PIC) will be held to present an overview of the study and alternative solutions including their evaluation. You will be able to view display boards, speak with study team members and give us your input. The PIC will be a drop-in event and no formal presentation will be made. Details of the PIC are as follows:

Date: Wednesday June 20, 2018
Place: Kings University College, Broughdale Hall Room BH104 (266 Epworth Avenue)
Time: 5:00 pm – 7:00 pm

We would like to hear from you.
Public consultation is an important part of this study. Contact us to provide comments or request more information.

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With the exception of personal information, all comments will become part of the public record of the study. The study is being conducted according to the requirements of the Municipal Class Environmental Assessment, which is a planning process approved under Ontario's Environmental Assessment Act.

City of London
Long Term Water Storage
Municipal Class Environmental Assessment

NOTICE OF PROJECT COMMENCEMENT & PUBLIC INFORMATION CENTRE #1

The City of London is supplied with water from two lake based sources, the Lake Huron Regional Water Supply System and the Elgin Area Water Supply System (Lake Erie). In the event of a disruption or reduction in water supply, and to supply adequate water pressure, the City has reservoirs to maintain uninterrupted service. These reservoirs are shown in Figure 1 and include the Arva Reservoir and Pump Station, the Springbank Reservoirs and Pump Station, and the Southeast Reservoir and Pump Station. To address future water storage needs, the City is undertaking a Municipal Class Environmental Assessment (EA) study to determine a preferred site (or sites) for additional water storage to meet future growth and ongoing emergency supply and distribution needs. Additionally, this project will consider the feasibility of retiring the existing Springbank Reservoir #2 and the McCormick Reservoir disconnected previously, as well as options for standby power for the water distribution pumps at the existing Arva Pump Station.

Public Information Centre

Public involvement is an important part of the Class EA process. Comments and information regarding this project are being collected to assist the project team in meeting the requirements of the Environmental Assessment Act. Residents and community organizations are encouraged to participate by providing input and attending the Public Information Centres (PICs). The first of two PICs will be held to present background information and the issues to be addressed through the Class EA process. Project team members will be available to discuss the project and to receive your input. This PIC will be a drop-in event with no formal presentation.

You are invited to attend the PIC to be held:

Date: Wednesday June 20, 2018
Time: 5pm to 7pm
Location: City Hall, 300 Dufferin Avenue, London (Committee Room #1, Second Floor)

Display materials will be available on the City of London website.

To provide comments, receive additional information or be added to the study mailing list, please visit http://www.london.ca/residents/Environment/EAs/Pages/default.aspx or contact either of the following team members below:

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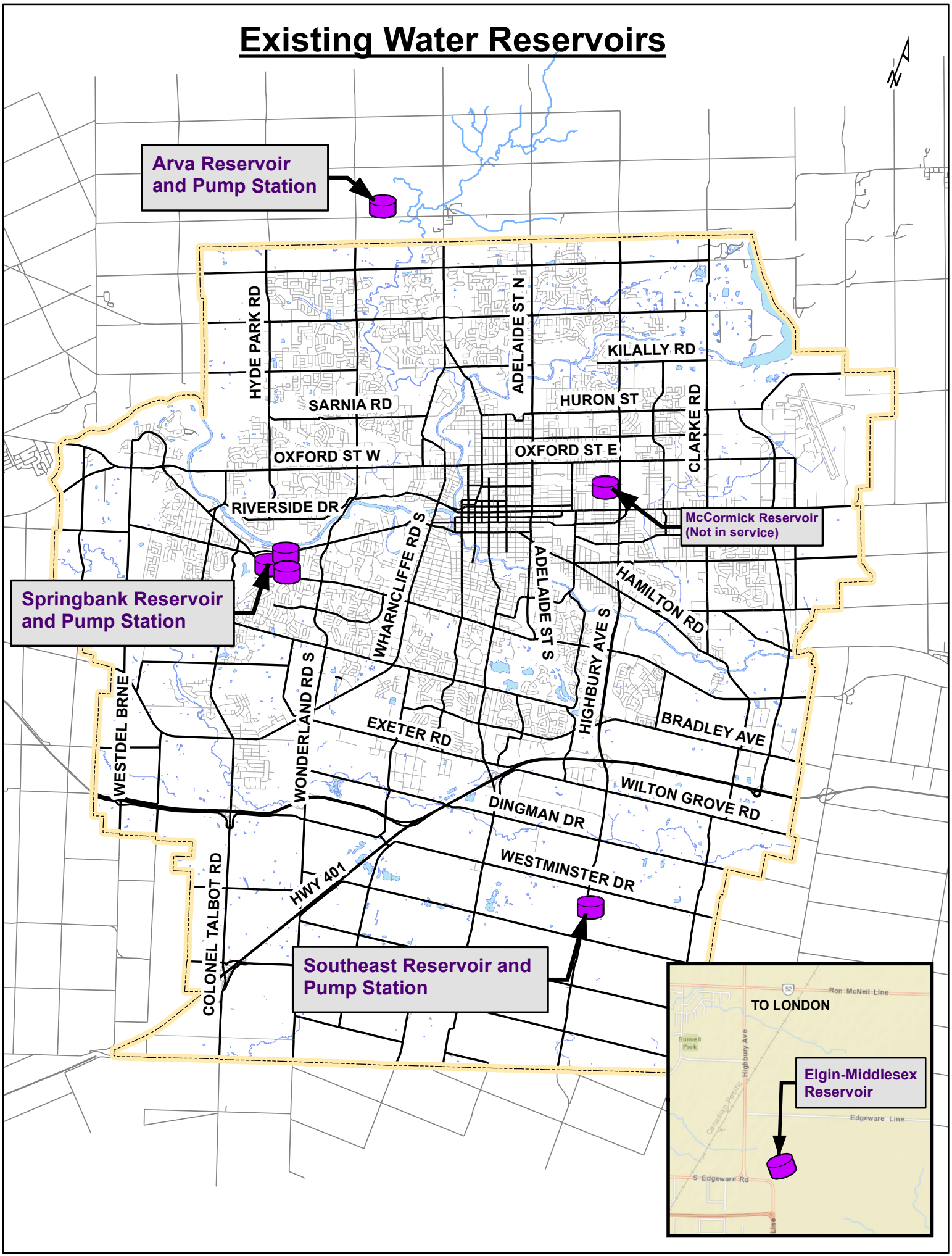
With the exception of personal information, all comments will become part of the public record of the study. The study is being conducted according to the requirements of the Municipal Class Environmental Assessment, which is a planning process approved under Ontario's Environmental Assessment Act.

Existing Water Reservoirs



From: s.levin s.levin
Sent: Thursday, May 31, 2018 12:14 PM
To: Lysynski, Heather <hlysynsk@London.ca>
Subject: Fwd: RE: 2017 Parks Master Plan update, EEPAC

Please put the following on the agenda for discussion as follow up to the May presentation by Donna Baxter:

I looked over the 2017 update and noted the only item that relates to EEPAC's mandate was the following – A24. What can EEPAC do to help staff achieve this objective?

"Improve awareness and understanding about the importance of the City's natural heritage system, the city's urban forest and their broader role within Carolinian Canada."

Hydrogeological Desktop Study – Sunningdale Court (Corlon Properties Inc.)

Dated February 8, 2018 and received at EEPAC April 27, 2018

Reviewer: I. Whiteside and B. Krichker

The main issues identified in this report were as follows:

1. Quantification of flows to Medway Creek during a Major and Minor Storm event.
2. Long term efficacy of LID measures used to increase infiltration/ reduce overland flow to Medway Creek.

Theme #1 – Flows to Medway Creek

The water balance presented in the report calculates that the run-off to Medway Creek (including run-off via the Wonderland Tributary, which drains directly into Medway Creek) will increase by ~25% if LID measures are implemented (from the existing 39,522 m^3/yr to 49,355 m^3/yr), and by 208% (to 82,257 m^3/yr). While the report highlights that the overall flow volumes are small relative to Medway Creeks overall (less than 0.01% with LID measures implemented), the increase in percentage terms is substantial. That said, our chief concern is that the report presents these as annual average increases in run-off, but does not indicate what will happen during major and minor flows; run-off from the subdivision will mostly occur during storm events, and the report does not evaluate the impact of elevated storm water run-off on Medway Creek as a result of these storm events. Our concern is that this increase in run-off could have an adverse impact on the creek via increased erosion (resulting in increased sediment flow) and water quality (flows above a certain level will bypass the oil-grit separator).

Recommendation:
Evaluate the impact from increase in surface water flow from the site to Medway Creek/ Wonderland Tributary during major and minor flow events. If the evaluation fails to demonstrate that overall water quality in Medway Creek will be improved or at minimum maintained to pre-development conditions, additional mitigation measures should be considered.

Theme #2 – Long Term Efficacy of LID Measures

The water balance management strategy is also predicated on the successful implementation of LID measures that are reliant on the eventual home owner of the site maintaining them. Given the low permeability of the underlying soils, these LID measures are critical to stormwater retention and thus, reducing peak flows to Medway Creek. Our concern is that the eventual homeowner may lack the desire or skill in maintain the LID measures (e.g. rain barrels, downspouts directed to swales, etc), and as such, run-off to Medway Creek (and the Woodland Tributary) may increase over time as the efficacy of the LID measures wane.

Recommendation:
Evaluate the use of LID measures on public property that can more easily be maintained in the longer term to ensure that their function is maintained.

EEPAC COMMENTS

Colonel Talbot Property, 3612 and 3630 Colonel Talbot, 6621 Pack Road

Environmental Impact Study by Natural Resource Solutions Inc. dated (May 2018), received by EEPAC at its May, 2018 meeting

Reviewers: S. Levin, S. Sivakumar, R. Trudeau

Submitted: June 21, 2018

BACKGROUND

This will be the third set of comments submitted by EEPAC, reviewing the plans for the Colonel Talbot/Pack Road development. In previous reports, concerns about existing wetlands, significant woodlands, bats and barn swallows were expressed. In this EIS, NRSI and Stantec have provided general details about a Wetland Compensation Plan (WCP). Wetland compensation has been supported in principle by agency staff (UTRCA, City of London) for the 3 wetland units proposed for removal within the subject lands. The following EEPAC comments are intended to help shape the nature of the wetland compensation plan.

Theme #1: Employ the Precautionary Principle

The following research should be considered when formulating and implementing the Wetland Compensation Plan.

- Very little is known about restoring inland freshwater wetlands, such as ponds, forested wetlands, bogs or fens (Kentula).
- The precautionary principle should be applied more rigorously in regards to wetlands where our knowledge of their functions and processes is limited. Instead, too much faith is put into the ability of restoration, relocation and recreation of wetlands to recover lost biodiversity (Maron et al., 2012).
- Time lags, uncertainty and problems with the measurability of the value being offset can seriously limit the technical success of offsets (Maron et al., 2012).
- It is the case that “project impacts cause immediate and certain losses, whereas the conservation gains of an offset are uncertain and may require many years to achieve” (McKenney and Kiesecker, 2010, p.171).
- Small wetlands may only be able to support a limited number of individuals and they may not be connected enough to larger systems for local biota to restore the wetland to pre-impact functioning (Moreno-Mateos et al., 2012).
- Nowhere is there a resounding success story, where offsetting has been demonstrated to achieve its full potential (Poulton and Bell, 2017, p. i).

- In a study by Suding (2011), reviewing the successes and failures of restoration projects around the world, it was found that only a third to a half of projects were successful where restoration was used to fix a degraded system, and that when restoration was used to re-create a habitat, the success rate was even lower (Maron et al., 2012).

- In a meta-analysis of restored wetland systems around the world by Moreno-Mateos et al. (2012), it was found that even after a century, the biological structure (i.e. plant assemblages) and biogeochemical functioning (storage of carbon in wetland soils) was on average 26 percent and 23 percent lower respectively than reference sites.

- Recovery is clearly very slow, or in some cases the post-disturbance systems move toward an alternate state that is different from the reference conditions (Moreno-Mateos et al., 2012).

Recommendation #1: Develop a WCP that assumes low or no impact is impossible and therefore the WCP should be enhanced with extraordinary features. (e.g. doubling wetland area, lengthy monitoring period, quantitative data collection)

<u>Theme #2: Ensuring the survival of a relocated Significant Wildlife Habitat.</u>

<u>Provincial Policy Statement (PPS 2014)</u>

Development and site alteration is not permitted within significant wildlife habitat "*unless it has been demonstrated that there will be no negative impacts on the natural features or ecological functions".* Similarly, the PPS (2014) states that development is not permitted within adjacent lands to significant wildlife habitat "*unless ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions."*

The WCP will be designed to limit the negative impact of the SWH relocation but what about future development on adjacent lands. For example, planners should account for known impacts in neighbouring developments and the cumulative amount of disturbed/converted habitat relative to the amount of undisturbed habitat (OMNR 2011). A water balance study needs to be undertaken to ensure that there will be no measurable change in the water table level or in surface water quality or quantity. Vegetation on adjacent land should never be removed if it is immediately adjacent to crayfish habitat, as this is important forage. Surface water runoff needs to be directed away from potential crayfish burrows to avoid sedimentation that adversely affects the crayfish's ability to dig burrows. Maintenance of drainage ditches (e.g., clearing of ditches) should be scheduled for periods when the crayfish are less likely to be present (e.g., early spring, when adults are often found in streams, lakes, and rivers) (Crocker and Barr 1968). (SWHMiST 2014)

Recommendation #2: Adjacent landowner awareness about the presence of burrowing crayfish and the importance of maintaining their habitat is an important conservation strategy and should be included in the WCP.

Theme #3: Multiplier Ratios

To address the problem that restoration or re-creation projects rarely, if ever, produce an equally biodiverse and functional wetland, multipliers are used to determine the scope of an offset project. Since wetlands are particularly valuable, the offset multiplier for wetlands is usually higher compared to other areas. Specifically, a restoration area should be several times larger than the impact site to compensate for the very high risk of failure or low performance. The London Plan species that "mitigation shall mean the replacement of the natural heritage feature removed or disturbed on a one-for-one land area basis (The London Plan, 1401), which seems insufficient given the uncertainties of success and the goal of the provincial wetland strategy aiming for a net gain of wetland area. However, The London Plan goes on to say "compensatory mitigation shall mean additional measures required to address impacts on the functions of the Natural Heritage System affected by the proposed works. The extent of the compensation required shall be identified in the environmental impact study, and shall be relative to both the degree of the proposed disturbance, and the component(s) of the Natural Heritage System removed and/or disturbed" (The London Plan, 1401). And 1402 (3) does state that "replacement ratios greater than the one-for-one land area [are] required to mitigate the impacts of the proposed works" (The London Plan, 1402).

Recommendation #3: Considering the limited success of wetland offsetting, selecting 4x as the multiplier would create a medium-sized wetland of 4 hectares. Larger wetlands do better than small isolated ones. Create a medium sized wetland of 4 hectares including the buffer.

Theme #4: A Wetland Compensation Plan That Ensures Success.

No One-Size-Fits-All

There really is no one-size-fits all guidance for offset; local contexts can provide a variety of challenges. As McKenney and Kiesecker (2010) point out, no two areas are exactly ecologically identical and we cannot expect with relocation or re-creation to produce an exactly equivalent wetland. So then, how do we best create "equivalency" to address the losses of biodiversity and functionality? Questions that must be addressed prior to any relocation or offset project are: where should the offset be located, when and for how long should it be operational, how should we manage risk of failure, and what will we do if an offset fails to reach its goals (McKenney and Kiesecker, 2010).

Baseline Data

To create equivalency, measurable performance standards (baseline data) must be established followed by a detailed method of tracking, reporting and recordkeeping. Baseline data should consist of both qualitative and quantitative observations.

To provide a useful bank of baseline data, consider the following:

- Counting the actual number of crayfish chimneys will establish a baseline value for future comparison
- Three Western Chorus Frogs were documented in the general area and that is a baseline value that can be used by future monitors.
- The Great Lakes Marsh Monitoring Program should be used to collect baseline data on birds, amphibians and turtles. In the monitoring period, population trends, abundance and occupancy of different species can be compared.

- The Vascular Plant Species List (Appendix V) is for the entire study area. Specific Habitat Surveys as outlined in the Great Lakes Marsh Monitoring Program should be conducted for the 3 existing wetland features. The relocated wetland should closely resemble the wetlands lost, minus the invasive species. *Page 5, wildlife salvage, bullet 3 of the WCP does appear to suggest this.*
- As stated in the EIS, Tables 5 and 6 (page32-33) provide a characterization of water quality and quantity for the wetland feature, to be used as baseline data.
- Use the Biological Monitoring and Assessment Program (BioMAP) to establish baseline conditions.

Recommendation #4: Establish measurable baseline data that can be compared to data collected in the multi-year monitoring program.

Site Selection

EEPAC prefers that the WCP recommend that the relocated wetland be built within the subject lands and adjacent to the off-site area labeled FOD where a large wetland exists. Appendix IX, Map 1 designates two areas within the subject area that might be suitable. However, both are situated on the high point of the property, outside the fluvial terrace and groundwater connections are not indicated. They are situated close to tributaries. The more northern area is relatively adjacent to FOD.

Ontario is still determining the duration of wetland offsets, whether they should be for the duration of the negative impacts or whether they should be in perpetuity. Given the ongoing losses of wetlands across southern Ontario, it can be assumed that wetland restoration projects or relocation should continue in perpetuity, especially since it has been demonstrated that evidence does not exist that these wetlands recover full functionality. Moreover, once a wetland has been moved for one project, the "relocated" or offset wetland, should not then itself become the subject of another development project and be relocated again.

Recommendation #5: Multi-season data on ground water must be collected and the water balance calculated prior to a final site selection for the relocation.

Recommendation #6: Relocate the wetland as close to the FOD area as possible. This area is located on a fluvial terrace and appears to contain a healthy wetland.

Recommendation #7: The "relocated" or offset wetland should not itself become the subject of another development project and be relocated again.

Wildlife Salvage

A review of the Stantec 'wildlife salvage' at the 905 Sarnia Road project (2016) raised one significant question. What is a suitable time period between the construction of the compensation pond and the transfer of wildlife?

WCP-TOR, Sequencing and Phasing #3: "Relocation of salvaged wildlife into newly constructed wetland compensation area, with some vegetation established."
Transferred amphibians lay their eggs among emergent and submergent plants. Tadpoles will feed on these same plants. Emergent plants are rooted in the marsh bottom and leaves and stems extend out of the water. Submergent vegetation is composed both rooted and non-rooted submergent plants and

rooted floating-leaved plants and non-rooted floating plants. Whether seeded or transferred, these plants will need time to become established.

Terrestrial crayfish scour the marsh bottom for edible organic matter. Sufficient time must be allotted for organic material to accumulate in the bottom of the newly constructed wetland.

Recommendation #8: Wildlife salvage and transfer should not occur until emergents and submergents are well-established in the compensation wetland.

Ecological Monitoring

Given that significant time lags occur before an offset project can be determined a success, the time scale must be seriously debated. Evidence has demonstrated that even 100 years after disturbance and restoration, the functions of a wetland may not have fully recovered. Indeed, to date, restoration ecologists have been unable to re-create full functional replacement; it may not even be possible to fully re-create all the functions of a wetland. Careful and regular monitoring over a long period of time is vital to catch any problems that may arise (wetland shrinkage, incursion by invasive species, deteriorating population trends) and to ensure greater probability of success. In the absence of sufficient monitoring and adaptive management, designing wetlands to be self-sustaining and self-managing will better guarantee that they succeed.

Recommendation #9: Obtain an irreversible commitment from the proponent to conduct assessment followed by monitoring enforcement, remedial measures and reporting for the relocated wetland for at least 5 years. Assessment intervals should be decided based on weather and ecological need (fall/spring/summer).

References

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Suding, K.A., 2011. *Toward an Era of Restoration in Ecology: Successes, Failures and Opportunities Ahead.* Annual Review of Ecology, Evolution and Systematics Volume 42:465-487

MEMO

TO: Jennie Ramsay, Project Director, Rapid Transit, City of London

FROM: Erin Fitzpatrick, Ecologist, WSP Canada Inc.

SUBJECT: **Draft London RT Environmental Impact Study – General Response to Comments from Environmental and Ecological Planning Advisory Committee**

DATE: **June 7, 2018**

This memorandum provides an overview of how WSP staff will be addressing the comments provided by the Environmental and Ecological Planning Advisory Committee (EEPAC) following their review of the Draft London RT Environmental Impact Study (EIS). The attached table details comments and WSP's responses.

Erin Fitzpatrick, M.Sc.
Ecologist, Environment

COMMENT #	COMMENT	RESPONSE
Existing Conditions		
Highlights:		
1	Terrestrial flora surveys should be conducted early May in order to see the full spring ephemeral community additionally we recommended survey be performed throughout the summer to identify and transplant regionally rare species if present as based on your responses to our previous comments. The surveys are incomplete	Surveys for spring ephemerals were completed during May for all seven sites. The final EIS report will be updated to include species recorded during these surveys. The EIS Report (Items 2 and 4, Appendix G) recommends that transplants of regionally rare species be completed during the growing season prior to disturbance.
2	Additional fish surveys should be conducted during the spring of the year (March-May) to determine what fish species are present within the BRT study area during the spring spawning season. The document indicated surveys were only performed in the late summer and early fall of the year.	Due to the presence of Species at Risk within the watercourses in question (Medway Creek, North Thames River, Thames River), permission to complete fish community sampling during the spawning season is unlikely to be granted by the MNRF. A Schedule C Permit under the Endangered Species Act is typically required to complete community sampling in waters where SAR presence is known or thought to occur. Therefore, WSP recommends that further sampling be avoided – there is sufficient information on community assemblages to carry out an assessment of impacts. Additional spawning surveys were not completed during the spring as it was determined that little additional information would be obtained. Black Redhorse, specifically, cannot be identified without examining specimens to verify the presence of species-specific diagnostic characters. Without an opportunity to examine the fish closely, confirmation of presence by

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		specific species would not be possible. The habitat assessments that were completed during 2015 and 2017 documented habitat present at the sites, including habitat that would be suitable for spawning. This information was considered in the impact assessment. At Sites 3, 4 and 5 where in-water work is anticipated, and aquatic and terrestrial SAR are thought to be present, the MNRF will consider impacts to the environment as it relates to all Threatened and Endangered species that have been documented at the site in question. Where additional information is required, the MNRF may request that surveys be completed as part of the permit process. If surveys are done too far in advance, they may no longer be valid when it comes time to apply for the permit and will need to be repeated. The EIS recommends that additional MNRF and/or DFO consultation be completed during detailed design when the area of impact is better understood. Potential impacts will be addressed through the permitting process and will include overall benefit measures, if deemed appropriate. Recommendations for additional sampling have been included in Items 24 and 25 of Appendix G to confirm the presence of SAR mussels at Sites 3, 4 and 5.
3	No access to hydrological existing conditions, benthic invertebrate sampling, water balance, etc…	The Stormwater Management Report prepared by IBI Group, provides information on the hydrological existing conditions throughout the study area. This report also examines water balance at Site 6 (Westminster Ponds) where preliminary analysis indicated that water balance at this site can be achieved, thereby maintaining the existing moisture regime within the Provincially Significant Wetland. This finding is in line with the recommended mitigation in Item 4, Appendix G of the EIS, which states that stormwater management plans must ensure surface water and/or ground water inputs to the PSW at Site 6 are balanced between pre- and post-construction. The existing urban cross-section across the remainder of the study area is not expected to change substantially, and as a result, significant changes to infiltration are not expected. Benthic macroinvertebrate data for 2015, 2016 and 2017 has been requested from the UTRCA. Available data will be discussed in the final EIS report.
4	No benthic sampling past 2014?	WSP has requested benthic data for 2015, 2016 and 2017 from UTRCA. Available data will be summarized in the final EIS report, and raw data will be appended to the report.

5	The reporting on existing and future hydraulics/hydrological condition, including water balance (surface, subsurface water and groundwater conditions) and evaluate any potential adverse impacts on the environment and ecology the project infrastructure lands functions and features, if these water resources conditions with be altered.	As noted in the response to Comment #3, the Stormwater Management Report provides information on the hydrological existing conditions throughout the study area. This report also examines water balance at Site 6 (Westminster Ponds) where preliminary analysis indicated that water balance at this site can be achieved, thereby maintaining the existing moisture regime within the Provincially Significant Wetland. The existing urban cross-section across the remainder of the study area is not expected to change substantially, and as a result, significant changes to infiltration are not expected. Reporting on existing and future hydraulics is to be completed during the detailed design phase of the project for sites where an impact may occur, namely at locations where alterations to the in-water footprint of an existing crossing are proposed (i.e. Sites 3, 4 and 5).
6	The required correlation/coordination of these existing and future water resources conditions together with soil conditions on the evaluations of potentially adverse impacts, mitigation measures associated with the assessment of changes of environmental/ecological conditions of the system that will be impacted by the proposed BRT infrastructure system.	The Geotechnical and Environmental Screening Report prepared by Golder Associates Ltd. (2018) examines available information related to general subsurface soil and groundwater conditions along the proposed transit routes and provides preliminary geotechnical engineering recommendations for transit shelter foundations, road widening, slope stability and pavements. Also included in the report is a preliminary environmental screening based on publicly available information to identify potential property contamination issues. Key recommendations from the geotechnical report, with respect to treatment of dewatering discharge to remove chemical contaminants have been incorporated into Appendix H of the EIS Report.
Additional comments:		
7	A timeline showing the restrictions of work for various habitats and species (Migratory Bird, turtle nesting, spawning, etc). be included in all bid documents. (It is not included in the EIS and it should be as well as there are a number of “blackout” times given the variety of terrestrial and aquatic species affected)	A timeline showing restrictions for work in various habitats will be provided in the bid documents and will be addressed during detail design on a site by site basis. Given the complexity of the project, and the number of species and habitats that need to be considered, a single timeline for the project is not practical. The EIS outlines timing restrictions; however, the ultimate schedule at each site will need to be determined through consultation with relevant agencies during detailed design.

8	Although habitat enhancement strategies are an admirable goal, it is unclear what strategies have been successful for the SAR species identified in this study. More clarity is required.	Habitat enhancement strategies are not just a goal but a requirement of the permitting process through the Endangered Species Act, with the requirement that the enhancements result in an overall benefit to the impacted species. During the Overall Benefit Permit application process, the responsible consultant will complete a review of the scientific literature and will consult with scientific experts to determine strategies and approaches that have been successful with the species in question, or a similar species. The strategies employed will be approved by the MNRF when it has been determined that they will collectively result in an overall benefit to the species.
9	The EIS must include dates aquatic surveys were carried out and if the surveys were done in areas of BRT work. (There are no dates for work undertaken by agencies!)	The table in Appendix F of the EIS Report has been updated to provide additional information on surveys times and locations. Emphasis has been placed on the approximate location each species was observed from Sites 1, 2, 3, 4, 5 and 7 by noting observations within specific distance ranges (e.g. < 500 m, 500 m to 1000 m, > 1000 m). Additional details are provided in the Aquatic Existing Conditions section of the SLSR (WSP, 2017).
10	Where Queensnake is notes (p. 7), the EIS be updated to reflect the finding of a Queensnake by a member of the public and confirmed by the SAR biologist at UTRCA in 2012/2013 west of Medway bridge (site 3). Queensnake surveys must precede work at this location. This should include the mowed back yard adjacent to the "station" south of Winderemere, between the Medway bridge and the residence bridge. This back yard is actually Huron University College property.	Thank you for that information. We have received information from the agencies, but have not included specific location information in our EIS. Many species (reptiles in particular) are vulnerable to poaching and we have been advised to keep specific details out of the reports. However, please be assured that WSP is aware of agency confirmed species locations up to the date of most recent correspondence with them.
11	Chimney Swift and Cavity tree surveys for bats be required at detailed design stage when works may negatively impact SAR species. Swift Watch be consulted during the detail design stage. (Was there a reply to Erin's May 8, 2017 e-mail to Claire Paller at the MNRF regarding Swifts and detailed nest surveys?)	At the bottom of the second page of the email response dated July 26, 2017, the MNRF indicated that 'detailed surveys to determine presence of nests/breeding activity be completed as close to the proposed project start date as possible.' This direction was given specifically for Barn Swallow, Chimney Swift and Cliff Swallow. This email is included in Appendix B of the EIS Report. In Item 15, Appendix G of the EIS Report, surveys have been recommended to confirm species presence / absence during the breeding season before construction/site preparation

		activities are to commence. A recommendation has been included that MNRF and Swiftchwatch be contacted during detail design to confirm appropriate survey protocols. To address potential impacts to SAR bat species, in Item 32, Appendix G of the EIS Report, the following recommendation was previously provided: "At the detailed design stage, a survey for suitable cavity trees within 6 m of the proposed works (specifically vegetation removal) at Sites 1, 3, 4 and 6 should be completed during leaf-off to better determine the potential for impacts to this type of habitat. Appropriate avoidance and mitigation measures should be determined through consultation with the MNRF during detailed design."
12	Mollusc surveys be required at the detail design stage for in water works and works at site 3. Any SAR species found must be removed and relocated away from the construction site rather than held and relocated to the site later.	In Section 10.2 of the EIS Report, we have indicated that "the need for additional targeted surveys for SAR mussels will be discussed with MNRF and DFO at detailed design, once footprint impacts are known, to address potential permitting and related works issues. Mussel rescue/relocations will be required at all locations where mussels have been confirmed within the in-water footprint as well as impact zones downstream of the in-water footprints". These efforts are to be completed at all sites where in-water works are proposed. Mussel rescue/relocation programs for SAR will be developed through consultation with the MNRF and/or DFO during detailed design. As noted in Items 24 and 25, Appendix G, these relocations should follow the guidance provided by and approved by MNRF through consultation, and DFO's *Protocol for the Detection and Relocation of Freshwater Mussel Species at Risk in Ontario – Great Lakes Area (OGLA).*
13	The Awareness and Encounter Protocols be reviewed at each site with the SAR biologist from UTRCA where turtles and their habitat may be affected by work. A fisheries expert from UTRCA or UWO provide the review where SAR aquatic species may be encountered and their habitat affected. This is particularly relevant as female turtles travel many kms.	Text within subsection 8.3.2 was revised to include the following: "Consultation may extend beyond the MNRF to include UTRCA, DFO, Western University, or other experts or agencies, as deemed appropriate."
14	All water balance reports, particularly for the project near site 6, must be reviewed by the hydrologists at the City and the UTRCA.	The reports are currently under review by the City and UTRCA.

15	Agree the SAR status be reviewed prior to detail design and/or construction. It is noted that Figure 27 is wrong as Spiny Softshell Turtles were listed as Endangered (from Threatened) in Ontario in Dec 2016.	Noted Figure 27 and report text was updated to show that Spiny Softshell Turtle is listed as Endangered in Ontario.
16	EEPAC would appreciate knowing who checks the Overall Benefit Permit and who checks if there has been an overall benefit? For Turtles, the SAR biologist at UTRCA must review the application before submission. If you hope to achieve and overall benefit, the permit must include how much money will be provided to ensure there is a benefit. Furthermore, who actually determines if the conditions of the permit have been met and what are the consequences if the benefits are not achieved?	Overall Benefit Permits are issued by the MNRF, and only once all parties agree to the terms of the permit and plans. A variety of different approaches may be included as part of a permit for overall benefit, including, but not limited to: outreach programs to educate public about harm reduction; partnerships with a university to help fund research dedicated to the species in question or its habitat; and habitat creation and/or enhancement. Permits typically include annual monitoring programs and reporting, which are reviewed by the MNRF. Contingency plans are also developed at the time of the permit application in the event that the agreed upon overall benefit plans do not meet MNRF expectations or are not benefitting the species. These contingency measures will be enacted if the annual monitoring indicates that the overall benefit plans are not achieving their pre-determined goals.
17	The EIS notes the thermal regime for Site 3 but not for any of the other relevant sites such as 2, 4, 5 and 7. This information should be included in final EIS.	Section 5.3 Existing Conditions has been updated to include more clear descriptions of thermal regime for Sites 2, 4, 5 and 7.
18	Regarding Site 1, EEPAC provided extensive notes to SWM stage regarding restoration plans for Mud Creek and that restoration for fishery habitat is less important than restoration for other species as there is a perched culvert at the Thames outlet and that fish are likely not found upstream.	The enhancement and restoration plans for the Mud Creek Subwatershed EA are expected to be completed in advance of the works for the BRT project and is to accommodate the ultimate BRT cross-section for Oxford Street West. As such, habitat restoration and enhancement plans are not expected to present a significant component of the work completed at this site as part of the BRT works. Nevertheless, WSP observed baitfish using the scour pool at the outlet of the tributary culvert from the parking lot to the north, as well as in the open water areas immediately adjacent the box culverts at the two private entrance lanes further east. In Item 38, Appendix G of the EIS Report, WSP recommended that re-assessment of habitat conditions within the remaining sections of the original channel following the realignment efforts to determine what habitat remains for fish within the existing culvert crossing

		location. If fish are still using the habitat, then mitigation measures as outlined in Item 38 should be implemented to protect that habitat.
19	Assessment of soil quality (SQ) indicators that detect soil degradation in different land use and soil management systems (LUSMS) is desirable to achieve sustainable management strategies. Can we include soil quality (Physical, chemical and microbial) assessment and monitoring procedure in place for all sites in 300 m buffer zone?	Soil quality assessments are not typically completed for road widening projects. As the RT project largely consists of road widening, this assessment will not be completed.
20	Is initial screening and element [occurrence] being absent sufficient to make decisions on SAR? Better to have comprehensive survey for SARs at least in natural heritage sites (Sites 1 and 6).	The absence of an element occurrence does not indicate the absence of a species. The approach taken by WSP follows the industry standard whereby SAR potential at a given site is estimated based on the results of the background review and agency consultation which provide information on historical or known occurrences, an assessment of existing habitat and comparison against SAR habitat requirements, and taxon-specific surveys (e.g. botanical surveys, breeding bird surveys, etc.). Comprehensive surveys for individual SAR species can be very labour-intensive and potentially harmful to the species (in the case of fish and/or mussels). Where potential for a particular species has been identified, mitigation measures have been provided to avoid or minimize impacts. Sites 1 and 6 have been studied extensively, both as part of this project and others (e.g. Mud Creek Subwatershed EA). Information from those studies has been included in the EIS and factored into the conclusions made by WSP staff with respect to SAR potential at these sites. The same approach was taken for other sites examined in the EIS report.
21	Field notes indicate that they have found several invasive species?	Yes. Non-native and invasive plant species were observed at Sites 1 to 7 where encroachments into the Natural Heritage System is anticipated. Approximately 36% of the plant species documented within the Study Area are considered non-native species, and of these, 25 are considered “undesirable non-native species” according to the City of London Environmental Management Guidelines (Table 4, Appendix C). An invasive species management strategy has been recommended in Section 8.4 of the EIS Report. There is an opportunity for the BRT invasive species management strategy to

		dovetail with future and ongoing invasive species management programs being conducted by the City of London.
System based design		
Highlights:		
22	Current flow regime including velocity and depth at site 3. Pier design must try to minimize impacts to these hydrological factors and minimize immediate downstream impact	Maintenance of existing conditions, including flow velocity and depth has already being recommended in the EIS Report for Site 3 (and other sites where in-water works are proposed). This is a hydraulic issue and will be covered at detailed design.
23	Impacts to species at risk. Need to main the current riffle, pool sequences at site 3. This is known spawning site of castostomids including the threatened black redhorse (*Moxostoma duquesnei*) and wavy-rayed lampmussel (*Lampsilis fasciola*).	As above. The EIS Report recommends maintenance of existing conditions where possible. Hydraulic issues will be investigated in more detail during detailed design.
24	The two lane multi use pathway adjacent to the PSW be reduced to one lane in order to reduce the impact of the PSW (site 6).	We are proceeding with the worst-case scenario to protect that design option. Refinement during detailed design is possible.
25	EEPAC agrees with permanent barriers to prevent the public from accessing sensitive river bank and shoreline habitat. For example, we agree with the exclusion fencing at Site 6 at detailed design and construction and then made permanent.	Noted. The suggested measures will be considered during detailed design and included where deemed appropriate.
26	EEPAC notes there is little if any data on Silver Shiner. Avoidance of habitat loss is the best approach to protecting this SAR fish.	Agreed. In general, there is very little data on Silver Shiner available within the wider scientific literatures. Recommendations provided within Item 26, Appendix G, speak to minimizing works associated with in-water habitat, banks and floodplain in areas that have been identified by the MNRF as habitat supporting Silver Shiner and protected to some

		degree under the Endangered Species Act. Text has been added to stress that where possible impacts to habitat for this species should be avoided. As noted in Item 26, Appendix G impacts to regulated habitat may require an Overall Benefit Permit under the ESA depending on a review of the proposed works with MNRF. Overall benefit plans should consider bank restoration works to address sedimentation issues, bank and floodplain plantings, and habitat enhancement for the species, research and community outreach programs.
27	EEPAC supports enhancement of habitat around the Murray Drain at Site 7 and the protection of the adjacent meadow for Meadowlark.	Noted
28	Bridge work at Site 3 has the potential to be very deleterious to fish habitat, particularly to habits for castostomids (suckers) including the SAR Black Redhorse (*M. duquesnei*). Hydrological modelling will need to be performed for this site to see how modification of the bridge and construction in the permanently wet sections of Medway Creek will influence the hydrological regime of the stream. Great care must be taken to minimize in water impacts to both the substrate, the flow and the thermal regime of the stream. Critical environmental factors for Black Redhorse spawning area has been identified as streams and smaller river short distances away from their mouths (Bowman, 1970; Smith 1977)/ Black Redhorse have been seen spawning on in the spring riffles of rubbles and gravel 15-60 cm of water (Bowman 1970) with flow rates of 1.4 m3/sec and surface velocities of 0.24 m/sec (McSwain and Jennings, 1972).	Reporting on existing and future hydraulics is to be completed during the detailed design phase of the project for sites where an impact may occur, namely at locations where alterations to the in-water footprint of an existing crossing are proposed (i.e. Sites 3, 4 and 5). Mitigation previously recommended in Items 27 and 37, Appendix G, concerning Black Redhorse and Medway Creek, respectively, included minimizing works within in-water habitat to that which is absolutely necessary, completion of works during appropriate timing windows (i.e. work is to be avoided between March 15th and July 15th of any given year), and implementation of robust sediment and erosion control measures to minimize sediment release. WSP can confirm that the current location of potential in-water impacts are not within habitat that supports Black Redhorse Spawning (i.e. impacts are to a backwater area downstream of the bridge), and potential impacts to the habitat for this, and other SAR species, will be fully reviewed by MNRF under the ESA permitting process, to ensure impacts are necessary and managed appropriately. To stress the need for maintenance of current flow conditions, additional text has been added to Items 26, 27, 36, and 37 of Appendix G as follows:

		Hydraulic modelling should be completed at later design stages to ensure that the proposed works will not alter the depth, velocity, flow regime or turbulence of the flow upstream and downstream of the bridge location(s).
Mitigation and monitoring		
Highlights:		
29	Creation of monitoring plan overseen by multiple agency groups including pre-, during, and post-construction. Compensatory mitigation plans shall be reviewed by City staff, EEPAC, MNRF, DFO, and UTRCA staff before being finalized. Approval of the MNRF, DFO and UTRCA shall be required.	Involvement by various stakeholders in the creation of monitoring plans and compensatory mitigation plans will be determined in part by the nature of the species/feature to be impacted. For example: MNRF and/or DFO will be involved in approval of compensatory mitigation and monitoring plans (i.e. Overall Benefit Permits, and Permits under the Species at Risk Act (SARA)) where impacts to provincially and/or federally listed SAR are expected; the DFO will dictate compensation and monitoring requirements for impacts to fish habitat as part of the application for a Fisheries Act Authorization (FAA); and the UTRCA will approve compensation and monitoring requirements as applicable under the Conservation Authorities Act. The City may determine if other groups or specialists should be involved in the development of compensatory mitigation and monitoring plans not covered by other permits or authorizations.
30	Habitat replacement should also be considered for the impacted aquatic environment. Having compensatory habitat replacement in terrestrial systems is not enough to replace lost aquatic habitats. Improvement of stream/river banks and riparian areas could help with this. Additionally, development of new spawning areas and enhancement of current ones along the water course for species such as Black Redhorse (*Moxostoma duquesnei*) should be considered.	Habitat replacement for the aquatic environment will be addressed through the required permitting processes (Fisheries Act Authorization or Overall Benefit Permit). Fisheries Act Authorizations (FAA) are provided by the DFO when they have formally accepted a Serious Harm Assessment. FAAs typically include terms and conditions and requirements for a compensation plan. As mentioned previously, an Overall Benefit Permit administered by the MNRF, includes overall benefit measures which may include restoration works to address sedimentation issues, habitat enhancement for the species or its host fish species, and research and community outreach programs.

		To complete habitat enhancement or replacement that is not formally approved as part of these permit processes, would require additional permits for impacts to other species.
Additional comments:		
31	Given how much of the compensatory mitigation is in the future and is noted to take 20-40 years for woodland recovery, the city shall consult with the UTRCA, MNRF, DFO and EEPAC on sufficient project budget for compensatory mitigation which will be required beyond the study area at various points in time.	The 20 to 40 years woodland recovery estimate is meant to identify the residual net effect and duration where plantings are proposed to compensate for the removal of mature trees. Monitoring of these areas is not intended for a 20 to 40 year period. A three-year monitoring program, in accordance with industry standards, has been recommended for areas not covered under other permits or authorizations, which may have specified monitoring periods (e.g. for SAR). The City will develop budgets based on the requirements outlined within specific permits and monitoring plans.
32	The compensatory mitigation plans must have suitable budgets because only the standard three-year warranty for plantings is included in the EIS. The Plans must also include who is responsible for monitoring, who is specifically to receive monitoring reports and frequency. It is not enough to say, for example, “The city will get annual reports.” EEPAC’s concern is that it is unclear how much review is done at detail design stage having almost never been involved at the detail design stage!	The City will develop budgets based on the requirements for permits / monitoring plans as determined by the agencies. The City will receive annual reports and applicable stakeholders will be circulated on the reports.
33	Consideration be given to start funding compensatory mitigation in the Ponds now by implementing the buckthorn removal plan recommended by N-S Environmental in the Master Plan for this ESA.	Invasive species removals will be coordinated with other City programs throughout the course of the project. Funding for these efforts will be included in the larger budgeting exercise for the project.
34	Better than 1:1 replacement be considered replacement of mass rather than replacement of individuals when considering compensatory mitigation for tree removal.	To offset for the removal of vegetation communities / habitat associated with significant natural features within the Natural Heritage System, including significant woodlands and wetlands, mitigation in the form of habitat replacement at a ratio greater than 1:1 land area is

		required through plantings of appropriate native species. This recommendation appears in the report text within Section 8.2 and Items 2 and 4, Appendix G. Based on direction from the City, text has been included in Item 1, Appendix G to address compensation for street tree removals, as follows: Compensation for street tree removal is to be at a 3:1 ratio, whereby for each street tree removed, three will be planted elsewhere in the City and as close to the removal area as possible.
35	Removal of *Phragmites* be included in each project budget where this invasive plant occurs in the work area of each project such as Site 6.	As noted within Section 8.4, removal of invasive species from the natural heritage system is to occur using best management practices established by the Ontario Invasive Plant Council. This may include treatment of species in advance of construction to reduce the risk of spread and mitigate potential impacts (e.g. *Phragmites australis*). The City is to determine budgeting requirements and timing for removals during later stages of the project.
36	Is there a plan to create new turtle nesting habitat? IF so, this must be reviewed by SAR biologist specialist at UTRCA.	There are currently no plans to create new turtle nesting habitat as impacts to this habitat are not anticipated at this time. Creation of nesting habitat may be included as a condition of an Overall Benefit Permit, in which case consultation with the MNRF and UTRCA SAR biologists would be completed.
37	When construction starts, this could cause further disturbance in micro climate- disturbance in soil and hydrology. Is there assessment and monitoring procedure in place? Especially distance in soil could attract invasive species in buffer zones (300m).	Section 8.4 of the EIS recommends the implementation of a Clean Equipment Protocol as part of the Invasive Species Management Strategy to reduce the potential for increased spread and colonization by invasive species. The Invasive Species Management Strategy is part of the Environmental Management and Monitoring Plan; details of this plan will be drafted during detailed design.
Construction window		
Highlights:		

38	Clarification of wording when mentioning in water works. For Black Redhorse, in water works should be performed from early summer to late fall (June-November) to avoid construction during the spring spawning migrations and on the spawning grounds.	Wording to describe permissible periods for in-water works has been updated in Appendix G as follows: All in and near water works should be completed during the permissible in-water timing window to protect specific sensitive life functions in order to minimize impacts to the species. In-water works are to be avoided between March 15th and July 15th of any given year.
Additional comments:		
39	Consider moving and replanting the Kentucky Coffee Tree near the University Bridge. The assumption is that moving while the tree is youngest is better. Continue to work with Dr. Greg Thorn with regards to the movement of this tree and the Butternuts at site 4.	Agreed. Methods, timing and monitoring of the transplant will be determined through consultation with the MNRF; however, consultation with the UWO will also occur as the tree is located on university property.
40	Support requiring Clean Equipment Protocol.	Noted
Comments on responses to previous comments issued by EEPAC following the review of the London RT SLSR (WSP, 2017)		
1	Continue to work with MNRF during the detailed design to minimize the impacts to Kentucky Coffee Trees. Dr. Greg Thorn should be consulted when dealing with the Kentucky Coffee Trees on site 4. Also, how will this be followed? We recommend monitoring of Kentucky Coffee Trees be implemented in the monitoring plan.	As Kentucky Coffeetree is listed as Threatened in Ontario, it is expected that a monitoring program will be required as one of the conditions surrounding the transplantation of this specimen. Methods, timing and monitoring of the transplant will be determined through consultation with the MNRF; however, consultation with the UWO will also occur as the tree is located on university property. Depending on the extent of impacts at Site 4, transplantation of this species will either proceed under a Letter of Advice from the MNRF, or it will be included in an Overall Benefit Permit to address potential impacts to a number of SAR at this Site.
2	We support the additional surveys to be performed throughout the summer. Further comments on this are included on page 1 of the document.	There were to be no additional surveys completed in 2018 in support of the EIS report. Surveys for spring ephemerals were included upon EEPAC's request to better document these species at all seven sites (as per Comment #1 of this document). The commitment to future work described in our response to comment #2 from the SLSR specified that the area of impact at Site 6 be surveyed during the summer prior to construction to identify and

		transplant regionally rare species, if present. This has been expanded upon in the EIS Report, specifically in Items 2 and 4, Appendix G, where WSP recommends that transplants of regionally rare species be completed during the growing season prior to disturbance. It is expected that these plant salvage efforts would take place during detail design once the limit and degree of disturbance at each site is better understood.
3	We support the additional surveys to be taken for occupancy of at-risk birds at site 4. This should also be included in the mitigation and monitoring plan.	Noted. Surveys were completed during 2017 and the results were incorporated into the draft EIS Report. As specified in the draft EIS, it is recommended that additional surveys take place in the breeding season prior to site disturbance to confirm nest usage and species presence / absence at all bridge sites where alterations are expected. MNRF is to be consulted to ensure use of acceptable protocols based on the species that are listed at that time.
11	We support the continued consultation and recommend that if potential turtle nesting and overwintering sites be lost that the construction of new nesting and overwintering sites be included in the mitigation plan.	Noted. Based on information obtained to date, works are not to be completed in turtle nesting habitat or turtle hibernation sites. Items 30 and 31 of Appendix G have been updated to include a recommendation that additional consultation with MNRF and UTRCA be completed during detail design to obtain the latest information with respect to locations of turtle nesting and wintering areas so that consideration for these habitats can be built into the contract documents and pre- and post-construction components of the Environmental Management and Mitigation Plan. Should direct or indirect impacts to these habitats occur as a result of the BRT works, compensation through habitat creation, rehabilitation and/or enhancement will need to occur.

ESA Management Committee Meeting Minutes

April 25th, 2018
UTRCA Boardroom

Present

City -	Linda McDougall, Christine Jarvis
UTRCA -	Alex Shivas, Cathy Quinlan, Christine Creighton
ESA Team -	Dan Jones, Brandon Williamson, Cole Volkaert, Richard Brewer, Kaitlyn Muma, Vicki Simkovic
Regrets -	Andrew Macpherson, James McKay, Jackie Ramsay

1) **Welcome**

2) **Minutes of Previous Meeting, November 29th, 2017**
   - No changes

3) **Environmentally Significant Areas (ESA) – Conservation Master Plans and General Updates**

3a. Medway Valley Heritage Forest ESA (Southern Portion)
- CMP Phase 2 by Dillon Consultants presented at PEC April 16, 2018 (public participation)
- Local Advisory Committee (LAC) UTRCA representative endorsed CMP
- To City Council April 24th, referred back to staff
- 2018 Invasive species work and monitoring continues in RO1, 2, 5, 14, 15 and 16 as per Phase 1 and draft Phase 2 CMP including work to protect Species at Risk (False Rue-anemone etc.) from Goutweed/Knotweed.
- Loosestrife Beetle Release by Donna Mackenzie, Ontario Beetles
- Informal trail closures following Guidelines including signage and monitoring

3b. The Coves ESA
- Trail edge ecological restoration work by Quiet Nature continues in Euston Meadow(as per CMP, funded by FOTCSI)
- Briscoe Woods woodchip trail implementation 2018 as per CMP/LIC
- ESA Team buckthorn management 2018 (Silver Creek and Euston Woods primarily)
- FOTCSI has submitted several funding applications for implementing stream channel restoration design as per CMP
- Linda and Stantec presenting the Silver Creek Stream Channel Restoration Design at Conference on Natural Channel Systems in Guelph in May 2018

3c. Meadowlily Woods ESA
- Update on Phase 1 Conservation Master Plan by Natural Resource Solutions Inc.; James McKay leading process; a Community Open House expected in 2018
- Buckthorn, Knotweed management 2018

3d. Westminster Ponds/Pond Mills ESA
- St. Williams (SWNEC) ongoing 5 year restoration work for the 4.0 ha buckthorn site
- Boardwalk lifecycle replacements/AODA upgrades in 2018

3e. Sifton Bog ESA
- Hydrology report on monitoring; City's Stormwater Management Unit to take lead
- Buckthorn and Periwinkle management 2018

3f. Kains Woods ESA

- Buckthorn and other invasive species work on track for 2018

3g. Warbler Woods ESA

- TAG walk to be coordinated 2018
- New lands will be brought into ESA team responsibility in 2018
- Buckthorn management 2018

3h. Kilally Meadows ESA

- DSV/Buckthorn being managed north and south of river in 2018
- TVTA volunteer group buckthorn baggie project on north side
- ESA Ecological Restoration Plan (as a 2018 capital project by consultant)
- Loosestrife Beetle Release Community Event(s) in Kilally June 2018

3i) Lower Dingman ESA

- Buckthorn management 2018

3j All ESAs – Invasive Species Management

- Phragmites management/monitoring, touch ups of all 2017 invasive work, all invasives are Monitored using EDRR (Early Detection Rapid Response) approach

4) ESA Team Operations Report

a) Power Point (Operations January 2018 to April 2018)

5) Other

a) **Brochure Update**s – Coves and Lower Dingman brochures ETA spring 2018; all brochure maps are being updated currently by UTRCA GIS staff

6) **Next Meeting** - September 2018