

Southdale Road West Improvements – Pine Valley to Colonel Talbot Road

Municipal Class EA

Environmental and Ecological Planning Advisory Committee



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August 16, 2018

Summary

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Municipal Class Environmental Assessment

Study Area

The Study Area for this EIS is comprised of the Southdale Road West Corridor extending from Pine Valley Boulevard to Colonel Talbot Road and includes a section of Bostwick Road

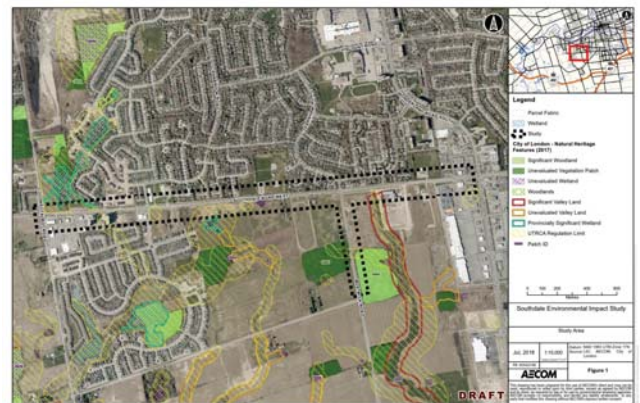
Problem/Opportunity:

This widening project was identified as a priority in the City of London's 2030 Transportation Master Plan and was identified as part of the 2014 Development Charges Background Study, including phasing. The City of London is considering widening of this corridor from Colonel Talbot Road to Pine Valley Boulevard, from 2 to 4 lanes, to be staged for construction from Pine Valley Boulevard to Farnham Road in 2022 and from Farnham Road to Colonel Talbot Road in 2026.

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Study Area



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Existing Environmental Conditions

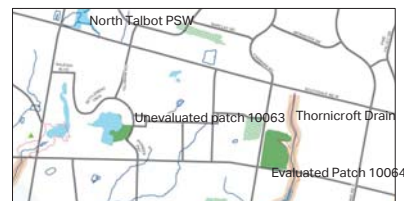
City of London OP Map Schedule B1 and the London Plan Natural Heritage Features Map 7 and Figure 5

- Provincially Significant Wetland (PSW; North Talbot) at Southdale Road West and Colonel Talbot Road,
- Unevaluated Vegetation Patch (Patch No. 10063) located west of Bostwick Road,
- A Significant Woodland Patch (Patch No. 10064) located on the east side of Bostwick Road, and
- A Significant Valley (associated with Thornicroft Drain).

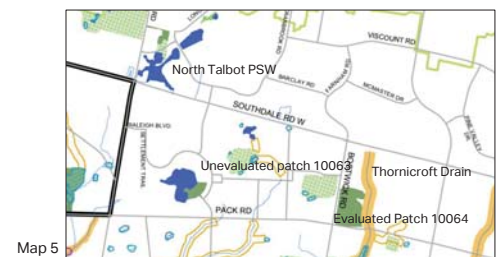
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Official Plan Schedules and Maps



Schedule B1



Map 5

Natural Heritage Features and Functions

Field Investigations

- Aquatic habitat assessment conducted August 15th, 2017
- Ecological Land Classification and floral inventory completed on June 9th, 19th, July 7th and July 11th, 2017
- Tree Inventory and assessments completed July 28th, 2017 and August 15th, 2017
- Breeding Bird Surveys completed on June 19th and July 7th, 2017
- Anuran call surveys were completed on April 26th, May 26th, and June 27th 2017
- Grassland Breeding Bird Surveys completed on June 12th, 22nd and July 6th, 2018

Natural Heritage Features and Functions

Aquatic Ecosystems

Six aquatic features were identified within the Study area and include from east to west:

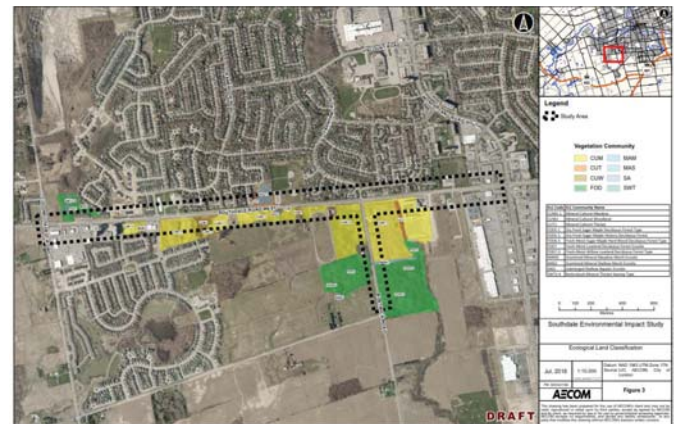
- Thornicroft Drain
- Tributary to Thornicroft Drain on Bostwick Road
- Pond / Wetland within the woodland west of Bostwick Road
- Small wetland on the south side of Southdale Road West
- Storm Water Management Facility (SWMF) within Southwest Optimist Park; and
- North Talbot PSW

Natural Heritage Features and Functions

Terrestrial

- The Study Area is located along Southdale Road mainly in an urbanized setting comprised of a mix of commercial and residential land uses.
- Naturally occurring vegetation communities are limited to four (4) locations along Southdale Road.
- Within these four locations, a total of eight (8) natural vegetation communities were delineated within the Study Area
 - three cultural (CUM, CUT, CUW)
 - two forest (FOD),
 - one swamp (SWT)
 - two Shallow Aquatic (SA) communities.
- Three (3) additional vegetation communities were delineated not associated with any natural heritage features.
 - Two cultural (CUM, CUT)
 - One shallow aquatic (SA) community

Vegetation Communities

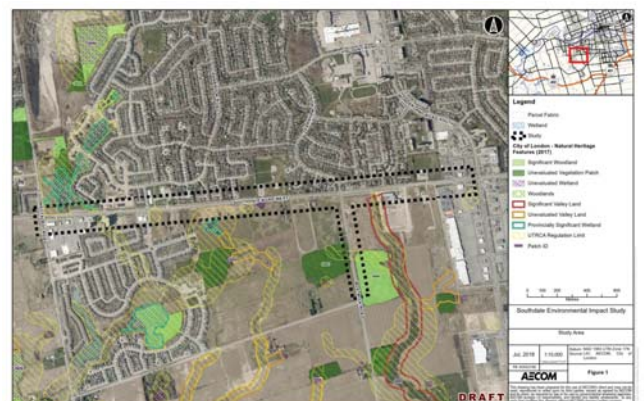


Natural Heritage Features and Functions

Terrestrial

- North Talbot Provincially Significant Wetland Patch No. 10059
 - Patch No. 10059 is located at the intersection of Southdale Road and Colonel Talbot. The patch is approximately 14 ha in size and contains two individual ELC communities. This patch is considered part of the North Talbot PSW.
- Bostwick Road West Woodland Patch No. 10063
 - This woodland is approximately 6.4 ha in size and is located on the west side of Bostwick Road. It is recognized in the London Plan as an unevaluated vegetation patch.
- Bostwick Road East Woodland Patch No. 10064
 - Patch No. 10064 is approximately 9.7 ha in size and is found on the east side of Bostwick Road. According to the London Plan this patch is considered a Significant Woodland.
- Small Wetland Feature along Southdale
 - This small feature is approximately 0.14 ha in size and is located on the south side of Southdale Road adjacent to Southwest Optimist Park.

Natural Heritage Features and Functions



Natural Heritage Features and Functions

Terrestrial

Wetlands

Wetland communities within the Study Area are divided into two separate wetland patches.

- The larger of the two, found within the Study Area, is 14.03 ha in size and is recognized as part of the North Talbot PSW. The portion of this PSW that falls within the Study Area is approximately 1.8 ha in size with both swamp and marsh wetland types observed
- The second wetland patch is approximately 0.18 ha in size and is located directly south of Southdale road across from Southwest Optimist Park. A culvert is present connecting this small patch to a small channel on the north side of Southdale Road within Southwest Optimist Park.

Woodlands

- The two woodland Patches: No. 10063 & No. 10064 have been identified as significant woodland patches

Species at Risk Assessment

- A review of background information identified seventy-six (76) SAR that may potentially occur within the Study Area.
- Of these, thirty-seven (37) species are listed as END, eighteen (18) species are listed as THR, and twenty-one (21) species are listed as SC
- Upon completion of field surveys within the Study Area, potentially suitable habitat for twenty-seven (27) species was identified, however, only four (4) of the species were observed. These include Barn Swallow (*Hirundo rustica*), Eastern Meadowlark (*Sturnella magna*), Bobolink (*Dolichonyx oryzivorus*) and Eastern Wood-pewee (*Contopus virens*). Although suitable habitat was not identified, Monarch (*Danaus plexippus*) and Bank Swallow (*Riparia riparia*) were observed during field investigations.
- Although the species themselves were not observed, suitable habitat conditions exists within the two woodlands located along Bostwick Road for Eastern Small-footed Myotis (*Myotis leibii*), Northern Myotis (*Myotis septentrionalis*), Little Brown Myotis (*Myotis lucifugus*), and Tri-colored Bat (*Perimyotis subflavus*).
- Additionally, Candidate Habitat for Barn Swallow and the four (4) bat species listed above may potentially be found within the barn structure located at the corner of Southdale Road and Bostwick Road.

Species at Risk Assessment

Provincially Recognized Features & Species

Common Name	Scientific Name	Candidate Habitat	Confirmed Habitat
Barn Swallow	<i>Hirundo rustica</i>		X
Bobolink	<i>Dolichonyx oryzivorus</i>		X
Chimney Swift	<i>Chaetura pelagica</i>	X	
Common Nighthawk	<i>Chordeiles minor</i>	X	
Eastern Meadowlark	<i>Sturnella magna</i>		X
Eastern Wood-pewee	<i>Contopus virens</i>		X
King Rail	<i>Rallus elegans</i>	X	
Northern Bobwhite	<i>Colinus virginianus</i>	X	
Wood Thrush	<i>Hylocichla mustelina</i>	X	
American Bitter	<i>Taxidea taxus jacksoni</i>	X	
Little Brown Myotis	<i>Myotis lucifugus</i>	X	
Eastern Small-footed Myotis	<i>Myotis leibii</i>	X	
Northern Myotis	<i>Myotis septentrionalis</i>	X	
Tri-colored Bat	<i>Perimyotis subflavus</i>	X	
Spoon-leaved Moss	<i>Bryoandersonia illecebra</i>	X	
Blue Ash	<i>Fraxinus quadrangulata</i>	X	
Broad Beech Fern	<i>Phegopteris hexagonoptera</i>	X	
Climbing Prickly Rose	<i>Rosa setigera</i>	X	
Crooked-stem Aster	<i>Symphoricarpon prenanthoides</i>	X	
Drooping Trillium	<i>Trillium flexipes</i>	X	
Eastern Flowering Dogwood	<i>Cornus florida</i>	X	
False Rue-anemone	<i>Enemion biternatum</i>	X	
Green Dragon	<i>Arisaema dracontium</i>	X	
Heart-leaved Plantain	<i>Plantago cordata</i>	X	
Kentucky Coffee Tree	<i>Gymnocladus dioica</i>	X	
Willowleaf Aster	<i>Symphoricarpon praetium</i>	X	
Wood-poppy	<i>Stylophorum diphyllum</i>	X	

Species at Risk

Grassland Breeding Birds

- Based on the results of breeding bird surveys conducted in by AECOM in 2017 that identified the presence of Eastern Meadowlark within the Study Area, it was determined that species specific surveys were required to identify grassland habitat use within the Study Area by Bobolink and Eastern Meadowlark
- A linear transect was set up traversing the grassland habitat within the Study Area with point count stations located along the transect at approximately 250m intervals. Three visits were conducted by qualified AECOM biologists on June 12th, 22nd and July 6th, 2018
- Both Bobolink and Eastern Meadowlark were identified during the surveys, as well as other SAR bird species.

Species at Risk

Grassland Breeding Birds

- Bobolink were observed at three stations and Eastern Meadowlark were observed at two.
- Bank Swallow was observed foraging over the fields at two stations although no nesting habitat was identified within the study area.
- Barn Swallow was also observed foraging over the fields at three stations. Barn structures are located approximately 80 m to the south east of one station GR-02 and at the north end of the pasture approximately 60m from station GR-03. Barn Swallows were observed entering and exiting the barn at station GR-03 during the surveys. It is likely that Barn Swallows are nesting within this structure, although access to both barn structures was not obtained to determine the presence of nests. No Bobolink, Eastern Meadowlark or other SAR bird species were observed at station GR-04.
- Within the Study Area there is a total of 1.35 ha of habitat for Bobolink and Eastern Meadowlark

Significant Wildlife Habitat Assessment

During the background screening exercise a total of twenty (20) candidate Significant Wildlife habitats were identified:

- Seasonal Concentration Areas – six (6) Candidate Habitats
- Rare Vegetation Communities or Specialized Habitats for Wildlife – nine (9) Candidate Habitats
- Habitats of Species of Conservation Concern – four (4) Candidate Habitats
- Animal Movement Corridors – one (1) Candidate Habitat

Of the twenty (20) candidate habitats identified, eighteen (18) were ruled out, leaving two (2) candidate habitats as present within the study area.

Significant Wildlife Habitat Assessment

Candidate Significant Wildlife Habitat	Confirmed Significant Wildlife Habitat
Bat Maternity Colonies	Special Concern and Rare Wildlife Species <ul style="list-style-type: none"> two (2) species were observed within the Study Area during 2017 field investigations - Monarch and Eastern Wood-pewee

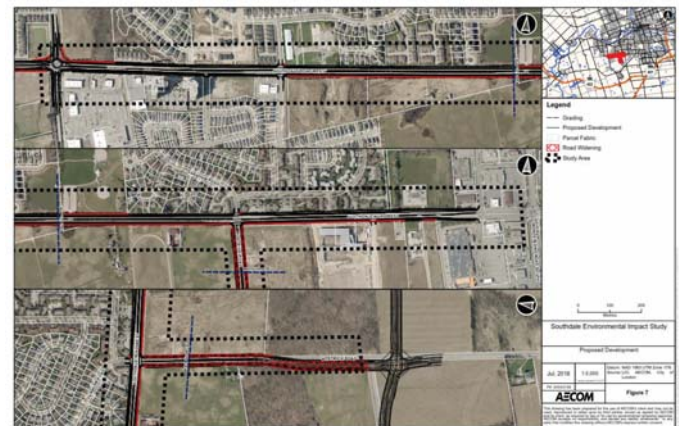
Tree Inventory

- A tree inventory was completed in accordance with the City of London Tree Protection By-law (2016) and using accepted arboricultural techniques as outlined in the Tree and Landscape Appraiser's Guide for Plant Appraisal, 9th Edition, (2000).
- Two hundred and fourteen (214) trees greater than 10 cm DBH were inventoried and assessed within the Study Area of Southdale Road West.
- Additionally, two hundred and sixty-two (262) trees less than 10 cm DBH were tallied within the Study Area and within 6 m of the Study Area.
- A total of 810 trees were tallied within the Bostwick Rd East and West Woodlands within 6 m. Patch 10063 contained 323 trees and Patch 10064 contained 487 trees (within the Study Area).
- A full tree inventory and preservation plan will be completed and submitted once the details of the design have been finalized.

Preferred Alternative

The preferred road cross section will include two lanes of traffic in each direction, complete with left turn lanes and centre medians where applicable. Sidewalks and bike lanes will be accommodated within the boulevards. Additionally, improvements to Bostwick Road, south from Southdale Road West to just north of Pack Road will include upgrading to an urban cross section with the addition of bike lanes in each direction.

Preferred Alternative



Impact Assessment

Short Term Impacts

- Disturbance and damage of vegetation along Southdale and Bostwick
- Removal of trees to widen Southdale and Bostwick Road
- Damage to tree rooting zones
- Fill and sediment deposition within watercourses
- Disturbance of fish habitat
- Disturbance of birds and other wildlife
- Short term, isolated dewatering impacts

Impact Assessment

Long Term Impacts

- Loss or Potential Disturbance to Vegetation - Vegetation will be cleared to accommodate the widening of Southdale and Bostwick Road. This includes the removal of 0.03 ha of wetland habitat found along Southdale Road associated with the small wetland feature.
- Introduction of Non-Native Species
- Potential Disruption to Resident Wildlife through Noise
- Potential Disruption to Wildlife through Lighting
- Potential Increase of Wildlife Road Mortality
- Potential Disturbance to Significant Identified Woodlands – Vegetation within the identified Significant Woodlands and the North Talbot PSW may be removed in some locations to accommodate the widening of Southdale and Bostwick Road
- Potential loss of 1.35 ha of habitat for Eastern Meadowlark and Bobolink

Mitigation Measures

- Construction Sequencing Plan
- Sediment and Erosion Control Fencing
- Construction Mitigation – Fisheries Timing Windows
- Peripheral Vegetation Protection
- Dust Suppressant Treatment
- Controlled Construction Vehicle Access
- Construction Vehicle Re-fueling Stations
- Damage to Rooting Zones during removals
 - To avoid compaction of soils, root zones around trees within natural heritage features will need to be fenced
- Wildlife Habitat Protection and Mitigation Measures
 - Avoidance through scheduling of construction periods
 - Wildlife observation protocol
- Breeding Birds and Vegetation Removals
 - Construction is restricted to periods before and after breeding period (no works April 1st to August 31st)
- Construction Mitigation – Noise Disturbance to Resident Wildlife
 - Construction is restricted to periods before and after breeding period (no works April 1st to August 31st)
 - Limit construction activity to a period after 7 am and before 7 pm daily
- Wildlife Protection and Handling
 - SCC surveys and relocation
 - Transplant and Relocation Plan
- Disturbance to fish species
 - Fish relocation for in-water works prior to construction
 - Scientific License to Collect Fish required from MNRF for relocation

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Recommendations

- A detailed Tree Inventory and Preservation Plan should be conducted once the final design is completed;
- An Erosion and Sediment Control Plan should be prepared during Detailed Design
- A detailed Construction Sequencing Plan should be prepared;
- A detailed SAR and Wildlife Handling Protocol should be developed prior to the initiation of construction;
- A Notice of Activity is to be prepared with the associated Habitat Management Plan for Bobolink and Eastern Meadowlark at Detailed Design
- Any in-water-works will require a plan to relocate fish encountered within the construction footprint. This should be prepared during detailed design.
- Wherever possible, habitat for SAR should be compensated for and/or enhanced;
- An edge management plan shall be prepared once construction has been completed along Bostwick Road for Patch No 10063; and
- A detailed restoration plan utilizing native plantings and native seed mixes following City specifications should be developed and followed.
- Consultation with EEPAC during the Detailed Design and Construction Phase

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Conclusions

Permits and Approvals

- Potential habitat for 27 terrestrial SAR species has been identified within the study area. Further consultation at the Detailed Design Stage is required to determine next steps on further species specific field investigations and permitting.
- Permit from the UTRCA will be required under Ontario Regulation 157/06
- As the proposed road work will potentially result in the removal of 1.35 ha of habitat for Bobolink and Eastern Meadowlark, a Notice of Activity (NOA) and a Habitat Management Plan will need to be prepared for the MNRF prior to commencing development in accordance with Ontario Regulation 242/08

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Conclusions

Timing Restrictions

- Removal of vegetation within the study areas can occur between the months of September to April, which is outside of the typical breeding bird period (April 1st to August 31st) within southern Ontario to avoid contravening the Migratory Birds Convention Act.
- The watercourses within the Study Area are classified as warmwater. The restricted activity timing window for the spring spawning period is from March 15th to July 15th.

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