



APPENDIX B

Lake Simcoe Region Conservation Authority



January 26th, 2016

AEC 15-152

Lake Simcoe Region Conservation Authority
120 Bayview Parkway,
Newmarket, Ontario
L3Y 3W3

Attention: Shauna Fernandes, Natural Heritage Ecologist

**Re: Confirmation of Scope of Work for a Class EA for the Proposed Road
Improvements on Bayview Drive and Big Bay Point Road, City of Barrie,
County of Simcoe**

Dear Ms. Fernandes,

Azimuth Environmental Consulting (Azimuth) has been retained to undertake the environmental components necessary to complete Phases 3 and 4 of the Municipal Class Environmental Assessment (Class EA) for road improvements on Bayview Drive and Big Bay Point Road (please see attached mapping). We would like to confirm the modified EIS Scope with LSRCA, as discussed by phone on January 21st, 2016.

EXISTING CONDITIONS

The study area appears to be primarily urban (industrial) in nature. Natural features of the area are majorly concentrated to the east side of Bayview Road. Based on photo interpretation of the 2002-2013 air photos available on Simcoe County Map viewer, vegetation communities in proximity to the development include:

- Mixed Forest (FOM);
- Deciduous Forest (FOD);
- Cultural Woodlot (CUW);
- Cultural Meadow (CUM);
- Coniferous Plantation (CUP3);
- Riparian Corridor;
- Lawn and other urban landscape vegetation.



Preliminary searches have been completed including a desktop search of the Ontario Breeding Bird Atlas, Air Photo evaluation, and ground trothing of the property and surrounding lands.

PROPOSED DEVELOPMENT

The proposed development involves transportation improvements on Bayview Drive from north of Little Ave to south of Big Bay Pont Road and on Big Bay Point Road from west of Bayview Drive to east of Huronia Road.

BACKGROUND SAR DATA

The Ontario Breeding Bird Atlas (square #17PK01) has been queried to determine the avian SAR birds recorded within the 100km² data square that contains the property. The following species were listed in the data summary: Peregrine Falcon, Common Nighthawk, Red-headed Woodpecker, Chimney Swift, Whip-poor-will, Eastern Wood-Pewee, Bank Swallow, Barn Swallow, Wood Thrush, Eastern Meadowlark and Bobolink.

Available information from the Natural Heritage Information Centre (NHIC) indicates that SAR recorded within the study area (1 x 1 km data squares: 17PK0412, 17PK0512, 17PK0511 and 17PK0611) includes historical records for Henslow's Sparrow (*Ammodramus henslowii*), and for Plains Emerald (*Somatochlora ensigera*) [1960 and 1959 respectively]. Snapping Turtle (*Chelydra serpentina*) has been recorded in 1994 within the square 17PK0611.

Based on our experience with the area, we will also include Butternut and Eastern Milksnake as SAR that could potentially occur in the area.

NATURAL HERITAGE DATA FROM PREVIOUS STUDIES

The key natural heritage features of the study area are concentrated on the east side of Bayview Drive (from Little Ave to Big Bay Pont Road). Azimuth has conducted the following studies in these areas:

Lackie's Bush

Terrestrial Resources

- Consultation of background information related to the property and surrounding area from the County, LSRCA and the Ontario Ministry of Natural Resources (OMNR) as required;
- Inventory of vegetation (June 10th and 17th, 2009), and classification of the vegetation communities on the property according to the methods of the Ecological Land Classification System (ELC) for southern Ontario;



- Two spring breeding bird surveys (June 8th and 23rd, 2009);
- Spring anuran amphibian breeding surveys (April 16th, May 20th and June 19th, 2009);
- Documentation of incidental observation of wildlife based on tracks, scat, and visual observation, during site visits;
- Assessment of the property for the presence of plant and animal species of conservation concern locally, provincially or nationally.

Fisheries and Aquatic Resources

- Consultation of background information related to the property and surrounding area from the County, LSRCA and the Ontario Ministry of Natural Resources (OMNR) as required;
- Documentation of Whiskey Creek features, including channel location, size, bank erosion, ground water discharge, substrate, and channel features (site visit on April 2, 2009);
- Confirmation of existence of barriers to fish movement at the culvert inlet at McConkey Place, and adjacent to The Source building, east of Bayview Drive at the upstream limit of Lackey's Bush;

Private Property

(Located south of The Source retail and north of North Tank Lines retail)

Terrestrial Resources

- Consultation of background information related to the property and surrounding area from the City of Barrie, LSRCA and the Ontario Ministry of Natural Resources (OMNR) as required;
- Inventory of vegetation (September 21st, 2007, May 20th and July 27th, 2008), and classification of the vegetation communities on the property according to the methods of the Ecological Land Classification System (ELC) for southern Ontario;
- Two spring breeding bird surveys (June 11th and June 23rd, 2008);
- Spring anuran amphibian breeding surveys (May 14th 2007, April 17th, May 23rd, and June 24th 2008);
- Documentation of incidental observation of wildlife based on tracks, scat, and visual observation, during site visits;
- Assessment of the property for the presence of plant and animal species of conservation concern locally, provincially or nationally.



Fisheries and Aquatic Resources

- Aquatic habitat assessment, including electro-fishing the channel on June 6th, 2008;
- Conduction of a desktop hydrogeological assessment;

Private Property

(Located at the NE corner of the Bayview Drive and Big Bay point Rd intersection)

Terrestrial Resources

- Consultation of background information related to the property and surrounding area from the City of Barrie, LSRCA and the Ontario Ministry of Natural Resources (OMNR) as required;
- Inventory of vegetation (June 17th, August 31st, September 28th, 2015; another spring survey to be conducted in 2016), and classification of the vegetation communities on the property according to the methods of the Ecological Land Classification System (ELC) for southern Ontario;
- Conducted specific surveys for Butternuts (July 27th, August 31st and September 8th, 2015);
- One spring breeding bird survey (June 24th, 2015; two other surveys to be conducted in the Spring of 2016);
- Documentation of incidental observation of wildlife based on tracks, scat, and visual observation, during site visits;
- Assessment of the property for the presence of plant and animal species of conservation concern locally, provincially or nationally.

PROPOSED SCOPE OF WORK

The goal of our assessment will be to assist in the selection of a preferred design alternative in Phase 3 of the EA that is both feasible while imposing the least impacts upon the natural environment, and to make recommendations on the best means to mitigate natural heritage impacts. Our work will place particular emphasis on fisheries concerns related to Whiskey Creek, and its associated tributaries, as well the features and functions within the “Level 1” Natural Heritage Resource lands (including species at risk) associated with Whiskey Creek.

Azimuth has undertaken following activities to fulfill the objectives of the study:

- Consultation with the engineering firm (CCTatham) regarding concerns and information requirements of the Lake Simcoe Region Conservation Authority



(LSRCA), the Ministry of Natural Resources and Forestry (MNR), and Fisheries and Oceans Canada (DFO);

- Conducted reconnaissance surveys of vascular plants during the fall (October 26th, 2015);
- Retrieved data from previous studies (described above);
- Evaluated vegetation communities, using protocols of the Ecological Land Classification for Southern Ontario (Lee *et al.* 1998) within the road right of way (ROW);
- Conducted a Species at Risk Screening for the study limits ROW including a search for Butternut;
- Recorded other wildlife observations and assess wildlife habitat function in the study limits;
- Completed a site reconnaissance on October 26th, 2015 to ground truth available mapping to determine the location of watercourse/drainage areas.
- Assessed the potential direct and indirect impacts of the alternative designs on the sensitive or significant environmental features as described above;

Activities to be completed:

- Develop an appropriate avoidance/mitigation/restoration strategy for the preferred alternative design to address the potential environmental impacts;
- Complete a thorough analysis of data against the criteria and guidelines of the province and other planning authorities as they relate to identification of significant natural heritage features;


We would like to inquire if the abovementioned scope of work is deemed acceptable.

Thank you very much for your assistance in this matter.

If you have any questions regarding this project please do not hesitate to contact us.

Yours truly,

AZIMUTH ENVIRONMENTAL CONSULTING, INC.


Bruna Peloso, M.Sc.
Terrestrial Ecologist

Brad Baker

From: Shauna Fernandes [S.Fernandes@lsrca.on.ca]
Sent: Wednesday, February 24, 2016 2:45 PM
To: Bruna Dias Peloso
Cc: Brad Baker; Lisa-Beth Bulford
Subject: RE: Revised Scope: Class EA Road Improvements on Bayview Drive and Big Bay Point Road, Barrie (AEC15-152)

Good Afternoon Bruna,

Based upon our phone call this afternoon, the LSRCA would be willing to accept the revised Terms of Reference under the following conditions:

- All works are confined to the ROW including grading and any disturbance.
- Bayview Drive remains a 5 lane platform as presented in the attachments Azimuth provided.
- Big Bay Point remains a 5 lane platform as presented in the attachments Azimuth provided.
- The wildlife habitat function assessment provides support towards determining appropriate crossing designs for terrestrial and aquatic migrations.
- An offsetting strategy is provided in order to compensate for all natural features removed.

Thanks,

Shauna

Shauna Fernandes

Natural Heritage Ecologist

Lake Simcoe Region Conservation Authority

120 Bayview Parkway,

Newmarket, Ontario L3Y 3W3

905-895-1281, ext. 247 | 1-800-465-0437

s.fernandes@LSRCA.on.ca | www.LSRCA.on.ca

Twitter: @LSRCA

Facebook: LakeSimcoeConservation

The information in this message (including attachments) is directed in confidence solely to the person(s) named above and may not be otherwise distributed, copied or disclosed. The message may contain information that is privileged, confidential and exempt from disclosure under the Municipal Freedom of Information and Protection of Privacy Act and by the Personal Information Protection Electronic Documents Act. If you have received this message in error, please notify the sender immediately and delete the message without making a copy. Thank you.

From: Bruna Dias Peloso [mailto:bdiaspeloso@azimuthenvironmental.com]
Sent: Friday, February 05, 2016 12:08 PM
To: Shauna Fernandes
Cc: Brad Baker
Subject: Revised Scope: Class EA Road Improvements on Bayview Drive and Big Bay Point Road, Barrie (AEC15-152)

Hello Shauna,

I understand that you were able to speak with Brad regarding the scope of work for the Class EA associated with the proposed Road Improvements on Bayview Drive and Big Bay Point Road in the City of Barrie. Further to that discussion I

would like to provide the following details for your consideration. Azimuth is proposing to reduce the agreed upon scope of work to the following:

Azimuth has undertaken following activities to fulfill the objectives of the study:

- Conduct reconnaissance surveys of vascular plants during the fall (October 26th, 2015);
- Review and refer to relevant data from previous studies (described below);
- Ground truth vegetation communities, using protocols of the Ecological Land Classification for Southern Ontario (Lee *et al.* 1998) within the road right of way (ROW);
- Conduct a Species at Risk Screening for the study limits ROW including a search for Butternut;
- Record and report other wildlife observations and assess wildlife habitat function in the study limits;
- Completed a site reconnaissance on October 26th, 2015 to ground truth available mapping to determine the location of watercourse/drainage areas.
- Assess the potential direct and indirect impacts of the alternative designs on the sensitive or significant environmental features as described above;
- Develop an appropriate avoidance/mitigation/restoration strategy for the preferred alternative design to address the potential environmental impacts;

The following work is available for reference in addition to Background information available through other sources:

Previous Work in Lackie's Bush which documented:

- ELC and Inventory of vegetation (June 10th and 17th, 2009);
- Two spring breeding bird surveys (June 8th and 23rd, 2009);
- Spring anuran amphibian breeding surveys (April 16th, May 20th and June 19th, 2009);
- Documentation of incidental observation of wildlife based on tracks, scat, and visual observation, during site visits;
- Assessment of the property for the presence of plant and animal species of conservation concern locally, provincially or nationally.
- Documentation of Whiskey Creek features, including channel location, size, bank erosion, ground water discharge, substrate, and channel features (site visit on April 2, 2009); and,
- Confirmation of existence of barriers to fish movement at the culvert inlet at McConkey Place, and adjacent to The Source building, east of Bayview Drive at the upstream limit of Lackey's Bush.

Previous work documented conditions associated with the Natural Heritage Features associated with the area between The Source retail and north of North Tank Lines retail including:

- ELC and Inventory of vegetation (September 21st, 2007, May 20th and July 27th, 2008);
- Two spring breeding bird surveys (June 11th and June 23rd, 2008);
- Spring anuran amphibian breeding surveys (May 14th 2007, April 17th, May 23rd, and June 24th 2008);
- Documentation of incidental observation of wildlife based on tracks, scat, and visual observation, during site visits;
- Assessment of the property for the presence of plant and animal species of conservation concern locally, provincially or nationally; and,
- Aquatic habitat assessment, including electro-fishing the channel on June 6th, 2008.

Previous work documented the features associated with the NE corner of the Bayview Drive and Big Bay point Rd intersection

- ELC and Inventory of vegetation (June 17th, August 31st, September 28th, 2015);
- Conducted specific surveys for Butternuts (July 27th, August 31st and September 8th, 2015);
- One spring breeding bird survey (June 24th, 2015);

- Documentation of incidental observation of wildlife based on tracks, scat, and visual observation, during site visits; and,
- Assessment of the property for the presence of plant and animal species of conservation concern locally, provincially or nationally.

Given that there has been abundant work undertaken for the main natural areas associated with the natural areas within the Right of Way we are confident that the revised Scope of work will allow for appropriate evaluation of the potential for impacts to the Key natural heritage features with potential to occur on or adjacent to the Right of Way in which the proposed work is expected to occur. I have also attached information related to the extent of the direct impact associated with the proposed alternatives (3 alternatives) as you discussed with Brad. As you can see, the majority of the natural areas are expected to be avoided based on our understanding of the work to date. Please consider the information provided and feel free to contact Brad or myself to further discuss the scope of work moving forward.

Regards,

Bruna Peloso, M.Sc.

Terrestrial Ecologist

Please note, our office has moved:

Azimuth Environmental Consulting, Inc.

642 Welham Road

Barrie, ON, L4N 9A1

ph: [\(705\) 721-8451 ext 214](tel:(705)721-8451)

cell: [\(705\)331-6677](tel:(705)331-6677)

bdiaspeloso@Azimuthenvironmental.com

www.azimuthenvironmental.com



Sent by E-mail: lloyd.spooner@barrie.ca

September 29, 2016

File No: T05-BA3
IMS File No.: PEAA453

Mr. Lloyd Spooner, C.E.T.
City of Barrie
Engineering Department
70 Collier Street, Box 400
Barrie, ON L4M 4T5

Dear Mr. Spooner:

**Re: Municipal Class Environmental Assessment Phases 3 & 4
Bayview Drive (Big Bay Point to Little Avenue) and
Big Bay Point Road (Bayview Drive to Huronia Road)
City of Barrie**

Thank you for circulating the Lake Simcoe Region Conservation Authority (LSRCA) on the following Technical Report related to this EA:

- Azimuth Environmental Consulting Inc., ***Natural Environment Impact Statement***, February 2016

The following comments are provided for your consideration related to our review of this report and the final recommendations in the ESR:

1. Section 7.0 Natural Environment Impact Assessment suggests that all of the alternatives outlined in section 6.0 Proposed Design Alternatives will have similar footprints as they will all occur within the existing right-of-way. This section must be revised to accurately reflect the alternatives, which all require additional land acquisition and expand beyond the existing right-of-way.
Additionally, the NEIA has not identified preferred alternatives and suggests that all of the alternatives will have similar impacts on the natural heritage features. Based on the information provided in the NEIA, it appears that options 6.1 Bayview Drive Alternative 1 and 6.6 Big Bay Point Road Alternative 4 would have less impact from a natural heritage perspective for the following reasons:
 - 6.1 Bayview Drive Alternative 1 would have a lesser impact on the significant woodland (Lackie's Bush) and any associated vegetation protection zone (VPZ) as it would occupy a smaller area with sidewalk only on the west side of Bayview Dr.
 - 6.6 Big Bay Point Road Alternative 4 would have a lesser impact on the adjacent meadow and woodland communities as it does not require removal of the railroad and would occupy the smallest area with a reduced 5-lane profile and sidewalk only on the south side of Big Bay Point Rd. As such we would suggest that when the final these alternatives be considered as better alternatives from a natural heritage perspective in the ESR.

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2. Section 7.1 Candidate Significant Woodland addresses the woodland feature known as Lackie's Bush. Based on the size of this woodland feature, it appears that it meets the criteria outlined in the Natural Heritage Reference Manual for Natural Heritage Policies of the PPS, 2005 (MNR, 2010) to be considered significant woodland. Unless it can be shown otherwise, the NEIA should assess and provide recommendations for this woodland as significant woodland (not candidate).

The NEIA has not recommended an appropriate vegetation protection zone (VPZ) for the significant woodland feature. Due to the close proximity of the forest edge to the right-of-way, it is unlikely that encroachment into a VPZ can be avoided. Further discussion regarding the direct and indirect impacts associated with construction and the location of a road abutting the woodland is required. This would include assessing impacts to forest form and function (i.e. interior forest) due to vegetation removal, soil compaction, road salt, etc. Recommendations for a VPZ and an edge management plan should be included in section 8.0 Recommendations and the final ESR.

3. Section 7.2 Other Wetlands identifies that there will be a slight encroachment into the riparian wetland resulting in vegetation loss and suggests that impacts would be negligible. As this wetland feature is quite small in size, any loss in vegetation would likely have a negative impact on this feature. Further assessment of potential direct and indirect impacts is required, as well as recommendations on appropriate mitigation measures.
4. Section 7.5 Fish and Fish Habitat describes the addition of culvert extensions as imposing some degree of habitat change or alteration yet states there will be no habitat loss as a result of culvert extension. Further justification for this assessment of crossing #2 is required as this crossing is proposed to be converted from part open bottom culvert to a closed bottom culvert. Additionally, this channel is described in section 4.3.2 as having a defined vegetated corridor with herbaceous growth and small shrubs on the upstream end of the crossing and having a thick vegetated buffer on the downstream end. With the proposed change in culvert type and extension to this culvert, it seems that the natural substrate and some riparian and aquatic habitat will be lost. Recommendations for mitigating these impacts should be included in section 8.1.2 Fisheries. Please note that LSRCA's preference is for open bottom culverts wherever feasible. These structures maintain a naturalized stream bed and minimize impacts to aquatic habitat. At a minimum, the potential for an open bottom culvert at crossing #2 should be assessed. The barrier to fish passage identified upstream from this crossing should not limit this option as there may be an opportunity in the future to mitigate this barrier.
5. Section 8.1 Timing Restrictions should specify that that if works requiring vegetation clearing must occur between April 1 and August 31, the area should be screened for evidence of nesting by a qualified ecologist within 48 hours of the works commencing.

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Mr. Lloyd Spooner, C.E.T.

6. Several discrepancies and inconsistencies in information and data have been noted throughout the NEIA. These have been identified below and must be reviewed and revised to ensure a complete and accurate assessment of the natural heritage features, potential impacts and appropriate mitigation measures. Please note that once these revisions have been made, further review of the NEIA will be required.

- a. Several ecological studies completed on properties adjacent to the study area have been referenced throughout the NEIA. These studies should be appended to the NEIA to provide a standalone document and facilitate review. If they are not available, the terms of reference must be revised to include additional studies in lieu of what has been referenced from these other reports.
- b. Section 3.3.3 Wildlife Surveys Amphibians indicates that amphibian surveys were conducted in 2010, yet section 4.2.3 Wildlife Amphibians indicates that surveys were completed in 2007 and 2008 at five stations. Furthermore, Table 5. Breeding Amphibian Surveys and Figures 2a. and 2b. Environmental Features indicate that surveys were completed at three stations.
- c. Table 2. Ecological Land Classification describes CUT1-5, CUW1b and Riparian Wetland communities but Table 3. Vascular Plants List does not include the list of vascular plants found in these communities. Additionally, Table 3 provides a list of vascular plants for CUM1-b, but this community has not been described in Table 2. and is not identified on Figure 2a or 2b.

Furthermore, Section 3.3.1 Vegetation Communities Mapping and Survey suggests that vegetation community types were confirmed via onsite and windshield surveys. Vegetation communities in the right-of-way were to be evaluated using protocols of the Ecological Land Classification (ELC) for Southern Ontario as per the terms of reference. This would involve completing an ELC plant species list for each polygon. Seven communities were classified as CUM1-1 but only one plant list is provided for all of them. Also, the communities classified as CUT1-5, CUW1b and Riparian Wetland do not have plant lists included in Table 3. For this reason, ELC data sheets for individual polygons should be appended to the report to provide a more accurate description, allowing for a better understanding of the various ecological communities in the study area.

- d. Section 3.5 Species at Risk references Table 5, is described as outlining habitat requirements and designations (endangered, threatened or special concern) for all species listed above. However, there are no species listed in this section and Table 5 provides data regarding amphibian surveys. This section should be revised to accurately convey the information and reference the appropriate Table, which appears to be Table 1.

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- e. Section 4.2.1 Vegetation states that none of the ELC communities or vegetative species documented are of federal or provincial conservation concern. However, butternut, *Juglans cinerea*, a species listed as endangered under the provincial *Endangered Species Act, 2007*, was identified in ELC compartment FOD6. Additionally, Section 5.4 Species at Risk and Table 1: Species at Risk Habitat Assessment also state that butternut was not found in the study area. The report should be revised to accurately represent the location of butternut trees in or adjacent to the study area. If butternut trees are present in or adjacent to the study area, potential impacts should be assessed and described in Section 7.3 Species at Risk.
- f. Section 4.2.3 Wildlife Birds suggests that SAR birds identified within the OBBA will be addressed below. There is no additional text that speaks to these species. It is noted that the majority of bird SAR and their habitat is addressed in Table 1: Species at Risk Habitat Assessment; however, an assessment of potential habitat for whip-poor-will should also be included as this species is listed by the OBBA for this area.

Table 1: Species at Risk Habitat Assessment includes barn swallow and the assessment of potential habitat in the area. Culverts have not been identified as potential habitat in Table 1 and there is no indication in the NEIA that existing culverts have been searched for potential nesting sites. "Barn Swallows often live in close association with humans, building their cup-shaped mud nests almost exclusively on human-made structures such as open barns, under bridges and in culverts" (<https://www.ontario.ca/page/barn-swallow>). Culverts in the study area should be searched for evidence of nesting and they should also be considered in the assessment of habitat for this species in Table 1.

Table 1: Species at Risk Habitat Assessment also includes red-headed woodpecker and the assessment of potential habitat for this species in the area. Key habitat for red-headed woodpecker is described in Table 1 as including forest edges and roadsides. The study area includes both of these habitats; therefore, further justification is required to determine that this species is not expected to be present on or adjacent to the study area.

In addition, section 5.4 Species at Risk and/or section 5.5 Candidate Significant Wildlife Habitat should address the potential for butternut, whip-poor-will, barn swallow, red-headed woodpecker and monarch butterfly habitat in the study area and section 7.3 Species at Risk and/or section 7.4 Significant Wildlife Habitat should also include an assessment of potential impacts to these species and their habitat in the study area.

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Mr. Lloyd Spooner, C.E.T.

We note that a permit from our offices will be required to undertake any proposed development or site alteration within the area regulated under Ontario Regulation 179/06 of the *Conservation Authorities Act*.

If you have any questions or comments, do not hesitate to contact the undersigned at 905-895-1281, extension 239, or by e-mail at l.bulford@lsrca.on.ca. Please reference the above file numbers in future correspondence.

Sincerely,



Lisa-Beth Bulford, M.Sc.
Development Planner

LBB/

c. David Perks, M.Sc. PTP, CC Tatham & Associates Ltd. (dperks@cctatham.com)



APPENDIX C

Provincial Data



October 21st, 2015

AEC 15-152

Ministry of Natural Resources
Midhurst District
2284 Nursery Road
Midhurst, Ontario
L0L 1X0

Attention: Suzanne Robinson, Species at Risk Biologist

**Re: Species at Risk Information Request for the Proposed Road Improvements
on Bayview Drive and Big Bay Point Road, City of Barrie, County of Simcoe**

Dear Ms. Robinson,

Azimuth Environmental Consulting (Azimuth) has been retained to undertake the environmental components necessary to complete Phases 3 and 4 of the Municipal Class Environmental Assessment (Class EA) for road improvements on Bayview Drive and Big Bay Point Road (please see attached mapping). We are sending this letter as a component of the Species at Risk screening for this property. Thus, we request that the information outlined herein be considered and that any additional consideration/information which is deemed relevant to the project be provided to allow for a thorough screening.

EXISTING CONDITIONS

The study area appears to be primarily urban (industrial) in nature. Natural features of the area are majorly concentrated to the east side of Bayview Road. Based on photo interpretation of the 2002-2013 air photos available on Simcoe County Map viewer, vegetation communities in proximity to the development include:

- Mixed Forest (FOM);
- Deciduous Forest (FOD);
- Cultural Meadow (CUM);
- Coniferous Plantation (CUP3);
- Riparian Corridor;



- Lawn and other urban landscape vegetation.

Preliminary searches have been completed including a desktop search of the Ontario Breeding Bird Atlas, Air Photo evaluation, and ground trothing of the property and surrounding lands.

PROPOSED DEVELOPMENT

The proposed development involves transportation improvements on Bayview Drive from north of Little Ave to south of Big Bay Pont Road and on Big Bay Point Road from west of Bayview Drive to east of Huronia Road.

BACKGROUND SAR DATA

The Ontario Breeding Bird Atlas (square #17PK01) has been queried to determine the avian SAR birds recorded within the 100km² data square that contains the property. The following species were listed in the data summary: Peregrine Falcon, Common Nighthawk, Red-headed Woodpecker, Chimney Swift, Whip-poor-will, Eastern Wood-Pewee, Bank Swallow, Barn Swallow, Wood Thrush, Eastern Meadowlark and Bobolink.

Available information from the Natural Heritage Information Centre (NHIC) indicates that SAR recorded within the study area (1 x 1 km data squares: 17PK0412, 17PK0512, 17PK0511 and 17PK0611) includes historical records for Henslow's Sparrow (*Ammodramus henslowii*), and for Plains Emerald (*Somatochlora ensigera*) [1960 and 1959 respectively]. Snapping Turtle (*Chelydra serpentina*) has been recorded in 1994 within the square 17PK0611.

Based on our experience with the area, we would also include Butternut and Eastern Milksnake as SAR that could potentially occur in the area.

Azimuth hasn't started the collection of field data for this property at this time. However, we are aware that these species have been identified in the area historically and/or habitat for these species could potentially exist in the area; and will be mindful of that during our field surveys and site analysis.

The purpose of this letter is to request additional information regarding information on additional Species at Risk and sensitive areas associated with the study area, aside from those identified above, and to request any background information that may be relevant to our study.




It is generally our intention to append this correspondence in the resulting EIS. If restricted species occur in the area and the MNR determines that the restricted species needs to be considered in the EIS, please provide two copies of the response - one with the species name replaced with (Restricted Species) for inclusion in the appendices of our EIS, the other retaining the identity of the species for Azimuth's internal use only.

Thank you very much for your assistance in this matter.

If you have any questions regarding this project please do not hesitate to contact us.

Yours truly,

AZIMUTH ENVIRONMENTAL CONSULTING, INC.


Bruna Peloso, M.Sc.
Terrestrial Ecologist

Attach: Simcoe County Air Photo with Study Area Overlay
Ontario Breeding Bird Atlas Data Summary #17PK01



Atlas of the BREEDING BIRDS OF ONTARIO

[About the Atlas](#)

[Data and Maps](#)

[Resources for Atlasers](#)

[Fr](#)

Atlas Data Summary

Select what type of data summary you would like to display and click the appropriate view button. You can use those pages to find out where the [atlas regions](#) and [atlas squares](#) are located.

What years do you want to display :: Which version of the atlas

How do you want to view the results:

Show me statistics on the number of species reported, the effort, etc.

1. View summary statistics:
2. View summary statistics: within region
3. View list of completed Point Counts in square ::

Show me the list of species, the highest breeding evidence and abundance

4. View species list for ::
5. View species list for square or block no. ::

Show me the list of regions or squares reporting a species

6. View list of reporting

Species list for square 17PK01 (number of entries returned: 110)

Region	Square	Species	Max BE	Breeding Evidence		Point Counts				
				Categ	#Sq	Atlasser Name	#PC	%PC	Abun	#Sq
13	17PK01	Canada Goose	NY	CONF	1	Jeffsurvey Howard				
13	17PK01	Wood Duck	FY	CONF	1	Dave Fewster				
13	17PK01	American Black Duck	FY	CONF	1					
13	17PK01	Mallard	NY	CONF	1	Jeffsurvey Howard	2	9.09	0.4091	1
13	17PK01	Blue-winged Teal	H	POSS	1	Dave Fewster				
13	17PK01	Common Merganser	P	PROB	1					
13	17PK01	Ruffed Grouse	H	POSS	1	Dave Fewster				
13	17PK01	Wild Turkey	FY	CONF	1	Dave Fewster				
13	17PK01	American Bittern	H	POSS	1	Dave Fewster				
13	17PK01	Great Blue Heron	NY	CONF	1	Liz M. MacDonald	1	4.55	0.0455	1
13	17PK01	Green Heron	FY	CONF	1		1	4.55	0.0909	1
13	17PK01	Turkey Vulture	P	PROB	1	Christopher Mr. Christopher G. Harris Harris				
13	17PK01	Osprey	FY	CONF	1	Liz M. MacDonald				
13	17PK01	Cooper's Hawk	NY	CONF	1	Jeffsurvey Howard				
13	17PK01	Broad-winged Hawk	H	POSS	1					
13	17PK01	Red-tailed Hawk	H	POSS	1					
13	17PK01	Merlin	T	PROB	1					
13	17PK01	Peregrine Falcon	T	PROB	1	Ted Armstrong				
13	17PK01	Virginia Rail	A	PROB	1	Dave Fewster				
13	17PK01	Sora	T	PROB	1					
13	17PK01	Killdeer	D	PROB	1	Kenneth F Abraham	2	9.09	0.1818	1
13	17PK01	Rock Pigeon	AE	CONF	1		2	9.09	0.4091	1
13	17PK01	Spotted Sandpiper	FY	CONF	1					
13	17PK01	Common Snipe	D	PROB	1					
13	17PK01	American Woodcock	S	POSS	1					
13	17PK01	Ring-billed Gull	H	POSS	1	Christopher Mr. Christopher G. Harris Harris	9	40.91	2.5909	1
13	17PK01	Mourning Dove	NY	CONF	1		4	18.18	0.3182	1
13	17PK01	Black-billed Cuckoo	H	POSS	1					
13	17PK01	Eastern Screech-Owl	FY	CONF	1					
13	17PK01	Great Horned Owl	S	POSS	1					
13	17PK01	Barred Owl	H	POSS	1					
13	17PK01	Common Nighthawk	T	PROB	1					
13	17PK01	Whip-poor-will	T	PROB	1					
13	17PK01	Chimney Swift	T	PROB	1	Liz M. MacDonald	2	9.09	0.1818	1

13	17PK01 Ruby-throated Hummingbird	T	PROB 1					
13	17PK01 Belted Kingfisher	AE	CONF 1	Dave Fewster				
13	17PK01 Red-headed Woodpecker	CF	CONF 1					
13	17PK01 Yellow-bellied Sapsucker	FY	CONF 1	Christopher Mr. Christopher G. Harris Harris	1	4.55	0.0455	1
13	17PK01 Downy Woodpecker	FY	CONF 1	Dave Fewster	3	13.64	0.1818	1
13	17PK01 Hairy Woodpecker	FY	CONF 1					
13	17PK01 Northern Flicker	T	PROB 1	Liz M. MacDonald	4	18.18	0.1818	1
13	17PK01 Pileated Woodpecker	S	POSS 1					
13	17PK01 Eastern Wood-Pewee	T	PROB 1	Dave Fewster	3	13.64	0.1818	1
13	17PK01 Alder Flycatcher	T	PROB 1	Dave Fewster				
13	17PK01 Willow Flycatcher	T	PROB 1					
13	17PK01 Least Flycatcher	T	PROB 1					
13	17PK01 Eastern Phoebe	NY	CONF 1					
13	17PK01 Great Crested Flycatcher	T	PROB 1	Dave Fewster	2	9.09	0.1818	1
13	17PK01 Eastern Kingbird	NY	CONF 1		2	9.09	0.0909	1
13	17PK01 Blue-headed Vireo	S	POSS 1					
13	17PK01 Warbling Vireo	CF	CONF 1		3	13.64	0.1364	1
13	17PK01 Red-eyed Vireo	AE	CONF 1		9	40.91	1.0	1
13	17PK01 Blue Jay	CF	CONF 1		2	9.09	0.0909	1
13	17PK01 American Crow	CF	CONF 1		11	50.0	0.8182	1
13	17PK01 Common Raven	P	PROB 1					
13	17PK01 Horned Lark	D	PROB 1		1	4.55	0.0455	1
13	17PK01 Purple Martin	H	POSS 1					
13	17PK01 Tree Swallow	AE	CONF 1		1	4.55	0.0909	1
13	17PK01 Northern Rough-winged Swallow	H	POSS 1	Liz M. MacDonald				
13	17PK01 Bank Swallow	AE	CONF 1					
13	17PK01 Cliff Swallow	P	PROB 1	Liz M. MacDonald				
13	17PK01 Barn Swallow	FY	CONF 1	2 atlassers	3	13.64	0.3636	1
13	17PK01 Black-capped Chickadee	NY	CONF 1	Jeff'survey Howard	12	54.55	1.0	1
13	17PK01 Red-breasted Nuthatch	P	PROB 1	Dave Fewster	1	4.55	0.0455	1
13	17PK01 White-breasted Nuthatch	NE	CONF 1		5	22.73	0.3182	1
13	17PK01 Brown Creeper	P	PROB 1		1	4.55	0.0455	1
13	17PK01 House Wren	CF	CONF 1	Christopher Mr. Christopher G. Harris Harris	3	13.64	0.1818	1
13	17PK01 Winter Wren	T	PROB 1					
13	17PK01 Veery	T	PROB 1	Dave Fewster	1	4.55	0.0455	1
13	17PK01 Wood Thrush	T	PROB 1					
13	17PK01 American Robin	CF	CONF 1	Dave Fewster	4	18.18	0.3636	1
13	17PK01 Gray Catbird	NY	CONF 1		2	9.09	0.0909	1
13	17PK01 Brown Thrasher	P	PROB 1					
13	17PK01 European Starling	NY	CONF 1		7	31.82	1.4545	1
13	17PK01 Cedar Waxwing	AE	CONF 1		4	18.18	0.3636	1
13	17PK01 Northern Parula	T	PROB 1	Dave Fewster				
13	17PK01 Yellow Warbler	CF	CONF 1		1	4.55	0.0455	1
13	17PK01 Chestnut-sided Warbler	T	PROB 1		1	4.55	0.0455	1
13	17PK01 Yellow-rumped Warbler	T	PROB 1	Dave Fewster				
13	17PK01 Black-throated Green Warbler	S	POSS 1					
13	17PK01 Blackburnian Warbler	S	POSS 1					
13	17PK01 Pine Warbler	NY	CONF 1	Jeff'survey Howard	2	9.09	0.0909	1
13	17PK01 Black-and-white Warbler	T	PROB 1					
13	17PK01 American Redstart	AE	CONF 1	Liz M. MacDonald				
13	17PK01 Ovenbird	DD	CONF 1		2	9.09	0.0909	1
13	17PK01 Northern Waterthrush	T	PROB 1					
13	17PK01 Mourning Warbler	A	PROB 1					
13	17PK01 Common Yellowthroat	DD	CONF 1					
13	17PK01 Eastern Towhee	S	POSS 1					
13	17PK01 Chipping Sparrow	CF	CONF 1	Christopher Mr. Christopher G. Harris Harris	6	27.27	0.4091	1
13	17PK01 Field Sparrow	T	PROB 1					
13	17PK01 Vesper Sparrow	T	PROB 1	Dave Fewster	2	9.09	0.0909	1
13	17PK01 Savannah Sparrow	CF	CONF 1					
13	17PK01 Song Sparrow	CF	CONF 1	Dave Fewster	14	63.64	0.9545	1
13	17PK01 Swamp Sparrow	CF	CONF 1	Dave Fewster	1	4.55	0.1818	1
13	17PK01 White-throated Sparrow	FY	CONF 1					
13	17PK01 Scarlet Tanager	T	PROB 1					
13	17PK01 Northern Cardinal	NY	CONF 1	Jeff'survey Howard	3	13.64	0.1818	1
13	17PK01 Rose-breasted Grosbeak	T	PROB 1		1	4.55	0.0455	1
13	17PK01 Indigo Bunting	A	PROB 1	Christopher Mr. Christopher G. Harris Harris	4	18.18	0.1818	1
13	17PK01 Bobolink	T	PROB 1					

13	17PK01 Red-winged Blackbird	CF	CONF 1	Dave Fewster	8	36.36	1.0455	1
13	17PK01 Eastern Meadowlark	T	PROB 1					
13	17PK01 Common Grackle	CF	CONF 1		6	27.27	0.5909	1
13	17PK01 Brown-headed Cowbird	NE	CONF 1		2	9.09	0.0909	1
13	17PK01 Baltimore Oriole	NY	CONF 1		2	9.09	0.1364	1
13	17PK01 Purple Finch	S	POSS 1	Christopher Mr. Christopher G. Harris Harris	1	4.55	0.0455	1
13	17PK01 House Finch	AE	CONF 1		2	9.09	0.0909	1
13	17PK01 American Goldfinch	NY	CONF 1	2 atlasers	14	63.64	1.3182	1
13	17PK01 House Sparrow	FY	CONF 1	Liz M. MacDonald	6	27.27	0.7273	1

[New data summary](#) [Download results](#)

Disclaimer: If you wish to use the data in a publication, research or for any purpose, or would like information concerning the accuracy and appropriate uses of these data, read the [data use policy and request form](#). These data are current as of 21 Oct 2015 .

LEGEND	
<p>Breeding Evidence</p> <p>Max BE: Highest Breeding Evidence recorded Categ: Highest Breeding Category recorded (OBS=observed, POSS=possible, PROB=probable, CONF=confirmed) #Sq: Number of squares with species (Breeding Evidence) Atlasser name: Name of atlasser who reported the highest breeding evidence (if they accepted that their name be displayed). If more than one person provided the same breeding evidence code, then only the number of atlasers is listed.</p>	<p>Point Counts</p> <p>#PC: Number of Point Counts with species %PC: Percent of Point Counts with species Abun: Average number of birds per Point Count #Sq: Number of squares with species (Point Counts)</p>

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APPENDIX D

Photographs



Crossing #1, Tributary of Whiskey Creek



Photo 1: CR#1 - West side of Bayview Drive (Google Street View).



Photo 2: CR#1 - West side of Bayview Drive. Existing culvert (2016/01/27).

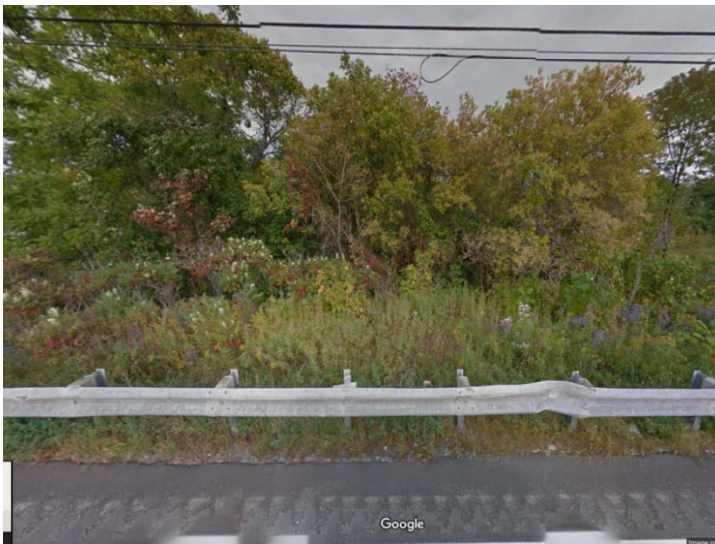


Photo 3: CR#1 - East side of Bayview Drive (Google Street View).



Photo 4: CR#1 – East side of Bayview Drive. Existing culvert (2016/01/27).



Crossing #2, Whiskey Creek, main branch



Photo 5: CR#2 – West side of Bayview Drive (Google Street View).



Photo 6: CR#2 – West side of Bayview Drive. Existing culverts (2016/01/27).



Photo 7: CR#2 – East side of Bayview Drive, northern exit (Google St. View).



Photo 8: CR#2 – East side of Bayview Drive, northern exit. Existing structure (2016/01/27).



Crossing #2, Whiskey Creek, main branch



Photo 9: - CR#2 – East side of Bayview Drive, southern exit (Google St View).



Photo 10: CR#2 – East side of Bayview Drive, southern exit. Existing structure (2016/01/27).