

February 26, 2018

Ms. Fairouz Wahab, P. Eng. Senior Project Manager - Land Development Richcraft Homes Ltd. 2280 St. Laurent Boulevard, Suite 201 Ottawa, Ontario K1G 4K1

Dear Ms. Wahab:

RE: 1298 Ogilvie Road

Tree Conservation Report and Environmental Impact Statement

This Environmental Impact Statement (EIS) and Tree Conservation Report (TCR) assesses an urban residential development for an approximately 1.5 hectare site on the south side of Ogilvie Road, east of Aviation Parkway, in the Beacon Hill portion of the City of Ottawa. The municipal address is 1298 Ogilvie Road.

As shown on the site plan at the end of this report, the proposed development will consist of 78 terrace flat units in seven blocks. Access from the south side of Ogilvie Road will utilize an existing laneway to the Epiphany Anglican Church to the west of the site, at 1290 Ogilvie Road. The development will include 92 surface parking spaces and will be on full municipal services. Retaining walls will be required in two locations, along the northwest edge of the site, south of the church parking lot and adjacent to the hydro corridor along the southeast edge, with noise walls along the west and southwest site edges. Adjacent trees of size are not present in either of these locations. DSEL (2018) report that stormwater quality control is not required for the site due to the existing downstream stormwater management pond. Stormwater quantity treatment will include controlling the post-development 5-year and 100-year release rates with on-site storage up to and including the 100-year storm event (DSEL, 2018). This will be accomplished through site grading and use of inlet control devices.

Site Context

The site is designated *General Urban Area* on Schedule B of the City of Ottawa Official Plan, with lands to the south along an east-west hydro corridor and to the south of the corridor designated *Major Open Space*. A recreational pathway along the hydro corridor connects with the on-site meadow habitat and pathways further to the east. As shown with a purple line on Map 1 at the end of this report, the south portion of the site is part of the City's Natural Heritage System. The south portion of the site is also part of the low-rated Aviation Parkway South

TREE CONSERVATION REPORT and ENVIRONMENTAL IMPACT STATEMENT

Urban Natural Area, as identified by Muncaster and Brunton (2005). No environmental constraints are shown for the site or adjacent lands on Schedule K of the Official Plan.

The majority of the site is treed, with the north portion used for access to the church and the southwest portion a meadow that was used as construction access to a stormwater management facility to the southeast of the site. In addition, a storm trunk pipe is under the access/pathway. The four lane Ogilvie Road corridor is to the north of the site, with Aviation Parkway and adjacent treed areas to the west. In addition to the hydro corridor and stormwater facility, the Cole-Martin Municipal Drain and treed areas are to the south of the site, south of the hydro corridor. The Transitway is about 230 metres to the south of the site, with the Highway 417 and Ottawa Road 174 corridors to the south of the Transitway. Medium density residential units, similar to those proposed for the site, are to the east.

Methodology

The Environmental Impact Statement component of this report includes an assessment of the terrestrial features, including the potential for specimen trees, significant woodlands and significant valleylands. The potential for Species at Risk and fish habitat are also assessed. A survey of the site and adjacent lands was completed on January 11th, 2018. Weather conditions during the survey included a light breeze, an air temperature of 7° C, and cloudy skies. Snow cover was extensive throughout the site.

The field survey and this report were completed by Bernie Muncaster, who has a Master's of Science in Biology and over thirty years of experience in completing natural environment assessments. The purpose of the Tree Conservation Report component is to establish which vegetation should be retained and protected on the site and to assess adjacent trees. The owner of the site is Richcraft Homes Ltd. It is proposed to remove the woody vegetation not identified for retention in 2018 after the breeding bird season.

Potential Species at Risk

The Ministry of Natural Resources and Forestry (MNRF)'s Make a Map: Natural Heritage Areas website was reviewed on January 30th, 2018

(www.giscoeapp.lrc.gov.on.ca/web/MNR/NHLUPS/NaturalHeritage/Viewer/Viewer.html). This site allows for a search of Threatened and Endangered species covered by the 2008 *Endangered Species Act*, as well as other species of interest. A search was conducted on the 1 km squares including the site and adjacent lands (18VR53 – 00 and - 10). A very old Species at Risk observation was identified for these squares; the threatened black-foam lichen. This is a leafy lichen that grows as greenish grey rosettes up to 20cm across on the trunks of deciduous trees. The COSEWIC report noted this lichen appears to be extirpated from Ontario and Quebec.

Four Species at Risk, barn swallow, bank swallow, eastern meadowlark, and bobolink, are identified in the Ontario Breeding Bird Atlas for the overall 10 km square (18VR53) that includes the current site. Eastern meadowlark and bobolink utilize larger grassland areas such as hayfields, habitat not present on or adjacent to the site. Bank swallows nest in open sand walls, often in association with sand pits, habitat also not present. No structures were present on or adjacent to the site that may be utilized by chimney swift or barn swallow.

In addition to the above potential Species at Risk, butternut was identified in February 20th correspondence from MNRF (Appendix A). Many other endangered and threatened species have historically been reported in the overall City, including butternut, American ginseng, eastern prairie fringed-orchid, wood turtle, spiny softshell, Blanding's turtle, musk turtle, Henslow's sparrow, loggerhead shrike, little brown myotis, northern long-eared bat, olive hickorynut, bald eagle, golden eagle, cerulean warbler, least bittern, eastern cougar, lake sturgeon, and American eel.

Based on the habitat present on and adjacent to the site, potential Species at Risk are butternut, and the bat species if larger cavity trees are present.

Existing Conditions

The site is generally treed with the church access at the north end and meadow habitat in the south-central portion of the site (Map 1). No aquatic habitat potential was observed or is mapped for the site, with the Cole-Martin Municipal Drain at its closest point approximately 40 metres to the south of the site. The southeast portion of the site is much lower than the elevation of the existing townhomes to the north. The change in elevation is approximately 4 metres (Photo 4). The soils on and adjacent to the site are mapped as glacial tills, which is consistent with the findings of Paterson (2018). Areas of fill were also noted by Paterson (2018). Paterson (2018) reports an overburden thickness ranging between 3 and 5 metres over bedrock shale of the Billings Formation. Some boulders were in the maple forest north of the hydro corridor. No groundwater was observed in the test pits advanced by Paterson (2018).

A maple deciduous forest is on the majority of the site. Red maple, sugar maple, and Norway maple are all present, with areas dominated by red maple. A few red maples are in the 50 to 60cm diameter at breast height (dbh) range, but the majority of trees are in the 15cm to 25cm dbh range (Photos 1 and 5). Basswood is also common in areas – ranging between 15cm and 42cm dbh (Photo 2). White ash, green ash, black cherry, white elm, red oak, bur oak, American beech, crack willow, eastern cottonwood, trembling aspen, and large-toothed aspen are also present. Poplars are more common in the southeast portion of the forest (Photo 3). The largest trees were crack willow and eastern cottonwood between 70cm and 80cm dbh in the southeast portion of the forest (Photo 6). The majority of the maples appeared to be in relatively good condition although they were not observed during the leaf-out period. Fungus was noted on some of the black cherry, crack willow, and ash trees and vine coverage was common on others. Many of the ash trees showed evidence of the emerald ash borer. The larger crack willows had poor form, including broken major limbs. An area of trees has been cut in the central portion of the site (Photo 7), with many trees also cut along the north slope in the southeast portion of the site. Wind throw was present in the south-central and southeast forest representation (Photo 8).

Tartarian honeysuckle shrubs were dominant in the understory of many portions of the maple forest. Common buckthorn, glossy buckthorn, and Japanese knotweed were also in the understory, along with regenerating ash, maple, cherry, and American beech stems. The buckthorn was dominant in parts of the southeast portion of the site. Ground vegetation

1298 OGILVIE ROAD TREE CONSERVATION REPORT and ENVIRONMENTAL IMPACT STATEMENT

observations were limited by the snow cover but included wild grape, goldenrod, aster, and thicket creeper.

The trees to the east of the site, along the west portion of the existing adjacent townhome development were generally less than 25cm dbh and off the fence line (Photo 9). Two exceptions were a 40cm dbh sugar maple 80cm to the east of the fence line and a 38cm sugar maple 30cm east of the fence line (Photo 10).

An area of cultural woodland in the southwest portion of the site was dominated by white elm in the 15cm to 20cm range (Photo 11, Map 1). Green ash and large-tooted aspen up to 25cm dbh were also present. Tartarian honeysuckle, common buckthorn, and red raspberry shrubs were in the cultural woodland along with regenerating Manitoba maple and elm stems. Ground vegetation included wild carrot, goldenrod, white-sweet clover, and reed canary grass.

Dog walking evidence was noted in the cultural meadow in the south-central portion of the site (Photo 12). This informal path connects to a pathway along the hydro corridor to the south of the site. Common ground vegetation included wild carrot, aster, goldenrod, common burdock, meadow grass, orchard grass, reed canary grass, common teasle, and purple loosestrife. Common buckthorn, red raspberry, and willow shrubs were present along with regenerating poplar and ash stems. A coppice Manitoba maple had individual stems up to 15cm dbh, with white elm up to 18cm dbh also present.

No Species at Risk were observed on or adjacent to the site during the field survey, although the survey was completed in the winter outside of the growing season. Wildlife observed included American crow, downy woodpecker, red squirrel, grey squirrel, and white-tailed deer tracks. Squirrel dreys were in the maple forest and woodpecker cavities were in one of the smaller ash trees. Road noise from the highways to the south was heard through the site. No stick nests or other evidence of raptor use were observed.



Photo 1 – Maple forest in the north portion of the site. View looking south



Photo 2 – Some larger basswood and maples in the 40cm to 45cm dbh range in the north-central portion of the site. View looking south

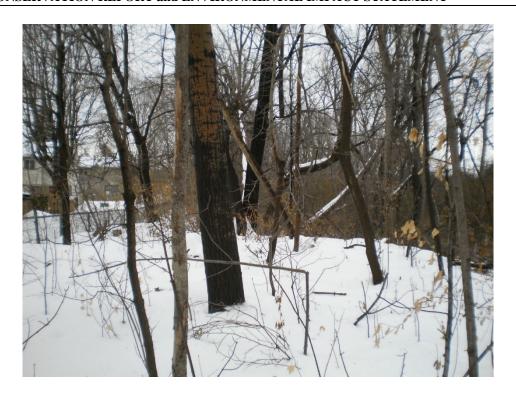


Photo 3 – Poplar is more common in the southeast portion of the deciduous forest. This example is looking east from the southwest part of the forest



Photo 4 – View to the south looking down the slope along the northeast edge of the site



Photo 5 – Most of the trees in the lower lying lands in the southeast portion of the forest are small, with scattered larger trees (not shown, but see Photo 6)



Photo 6 – A 80cm dbh crack willow was one of the larger trees in the southeast portion of the forest (and the largest tree observed on-site)



Photo 7 – Many trees have been cut in the north-central portion of the site opposite the south part of the church parking lot. View looking east



Photo 8 – *Windthrow is common in the southeast portion of the deciduous forest on the lowlands*



Photo 9 – Trees to the east of the north portion of the site (note fence near the middle of the photo) are generally small. View looking south



Photo 10 – A larger trees to the east of the north-central portion of the site is a 38cm dbh sugar maple just east of the fence line. View looking north



Photo 11 – Cultural woodland in the southwest portion of the site. View looking south



Photo 12 – Cultural meadow in the south-central portion of the site. View looking north

Aviation Parkway South Urban Natural Area

The Aviation Parkway South Urban Natural Area (Urban Natural Area number 68) is approximately 10.3 hectares and is to the west and east of the Aviation Parkway, south of Ogilvie Road and north of the Transitway. The Aviation Parkway South Natural Area was rated as low, with the site summary in Muncaster and Brunton (2005) noting that the area is severely fragmented swampy woodland area in till and organic substrate divided by a major roadway corridor. Disturbances within the Aviation Parkway South Urban Natural Area included a severe impact from non-native flora to the extent that the native undergrowth has been virtually replaced, significant traffic noise throughout, especially in south portion of the natural area, habitat fragmented by severe cutting of forest cover; disturbance to the woodland from forts, a reduced water table through drainage efforts, cut and fill earth disturbance throughout, especially in the south portion and an edge effect influence throughout the natural area (Muncaster and Brunton, 2005). Many of these disturbances were also noted on-site including the non-native species, tree cutting, and traffic noise. The site summary notes the presence of yellow birch, an uncommon swamp forest canopy species. These species was not noted on-site. The Aviation Parkway South Urban Natural Area scored '3' (on a scale of '1' to '5') for two of the nine evaluation criteria (connectivity and size and shape) used in the evaluation of urban natural areas. No criteria were scored above 3, with the remaining seven criteria scoring '1' or '2' (regeneration, absence of disturbance, natural communities, significant flora and fauna, representative flora, habitat maturity and wildlife habitat).

The Aviation Parkway North Urban Natural Area is to the north of the site, north of Ogilvie Road and also on both sides of Aviation Parkway. This 20.7 hectare urban natural area was rated moderate overall, with four of the criteria (connectivity, size and shape, habitat maturity, and wildlife habitat) scoring '3' or above.

Significant Woodlands and Valleylands

The criteria for significant woodlands are found in the Natural Heritage Reference Manual (OMNR, 2010). The contiguous linear forest extends to the east of the site, with a total area of approximately 2.1 hectares, and a maximum width of about 50 metres. Thus, no forest interior habitat is present. In addition, the overall size of the forest is too small to meet the 20 hectare threshold for significance based on a watershed forest cover of 24 percent. Other evaluation criteria in OMNR (2010) are also lacking such as linkages, woodland diversity, educational functions, or uncommon characteristics such as rare vegetation communities, unique tree species, or larger tree size structure. The closest channel with potential fish habitat is more than 20 metres south of the south boundary of the forest and given the municipal drain characteristics this fish habitat is likely not sensitive. As evidenced by the dog walking there is a social function to the area, although the dog walking is along pathways outside of the forest habitat in the meadows and hydro corridor.

OMNR (2010) also provides criteria for identifying significant valleylands. Although there is a significant slope, the lack of a watercourse and associated fish habitat, intermittent tree coverage rather than well-treed valley slopes, no distinctive geomorphic landforms, lack of unique communities, disturbance of non-native vegetation and tree removal, lack of a linkage function,

no recreational function. and likely artificial creation of the slope through former extraction indicate the southeast portion of the site would not be considered a significant valleylands.

Significant Wildlife Habitat

The potential for significant wildlife habitat was assessed using the guidance in OMNR (2010) and MNRF (2015). No flora, fauna or ecological conditions identified in the background review or field survey that would trigger a Significant Wildlife Habitat designation with respect to the ELC communities present were observed on the site. For example, the cultural habitats do not support waterfowl stopover or staging areas, colonial nesting bird breeding habitat or other examples of seasonal concentration areas, rare vegetation communities as noted in MNRF (2015), or rare or specialized habitats including seeps or springs.

No forest interior habitat is present and thus potential nesting of species of special concern such as wood thrush and eastern wood-pewee is unlikely. No evidence of raptor wintering areas was noted and old growth forests are not present. The overall forest is not large enough to meet the size criterion for deer winter congregation areas and areas of broken and fissured rock for potential use by snakes were not observed.

The site is isolated from an environmental perspective due to the adjacent transportation corridors along Ogilvie Road, Aviation Parkway, Ottawa Road 174, the Transitway and Highway 417. Urban residential developments are to the east and northeast of the site and west of Aviation Parkway. A limited connection to the urban natural area north of Ogilvie Road requires crossing the multi-lane Ogilvie Road.

Impact Analysis and Recommendations

Species at Risk and other Significant Natural Heritage Features

No Species at Risk utilization was observed for the site, including no butternut observations on or adjacent to the site. No potential structures for chimney swift or barn swallow are present and potential cavities for bats in larger trees were not observed.

The on-site and adjacent contiguous forests are not considered significant woodlands, and significant valleylands or significant wildlife habitat are not present.

Tree Retention

Due to the density of the development and required urban servicing and associated grading no tree retention is anticipated for the site. Grading Plans produced by DSEL (Project No. 18-1004, GP-1 and GP-2, January, 2018) for the west and east portions of the site show grade raises up to three and four metres will be required for the east portion of the site. There are no specific planting sensitivities for the site, although the landscape architect may choose species that are less sensitive to an urban environment.

The follow important mitigation measures are to be properly implemented:

- 1. To protect breeding birds, no tree removal should occur between April 15th and August 15th, unless a breeding bird survey conducted within five days of the woody vegetation removal identifies no active nests in the vegetation to be removed;
- 2. If any trees can be retained they are to be protected with sturdy temporary fencing at least 1.3 metres in height installed from the tree trunk a distance of ten times the retained tree's diameter where possible. Signs, notices, or posters are not to be attached to any tree. No grading, heavy machinery traffic, stockpiling of material, machinery maintenance and refueling, or other activities that may cause soil compaction are to occur within three metres of the critical root zone of the trees to be retained and protected. The root system, trunk, or branches of the trees to be retained are to be protected and not damaged. If any roots of trees to be retained are exposed during site alterations, the roots shall be immediately reburied with soil or covered with filter cloth, burlap or woodchips and kept moist until the roots can be buried permanently. A covering of plastic should be used to retain moisture during an extended period when watering may not be possible. Any roots that must be cut are to be cut cleanly to facilitate healing and as far from the tree as possible. Overhanging branches from retained trees, including those adjacent to the site, that may be damaged during construction are to be pruned by a qualified arborist prior to construction. Exhaust fumes from all equipment during construction will not be directed towards the canopy of the adjacent retained trees.

All of the supports and bracing for the protective fencing should be placed outside of the protected area and should be installed in such a way as to minimize root damage. Also, since the desired effect of the barrier is to prevent construction traffic from entering the tree's critical root zone, the barrier should be kept in place until all site servicing and construction has been completed;

- 3. Where the critical root zones (ten times the trunk diameter) of the adjacent trees extend onto the site, where possible tree protection fencing as described above is to be installed along the outer edge of the root zone. If too much of the root zone will be damaged the adjacent landowners are to be consulted and the removed tree replaced with new plantings of native tree species in locations approved by the adjacent landowner. Recommended native species for planting include a mix of coniferous and deciduous species such as sugar maple, red maple, basswood, bur oak, red oak, tamarack, white pine, and white spruce, along with nannyberry, elderberry, and native dogwood shrubs. Sourcing native species from local seed sources is strongly recommended to ensure adaptability and longevity;
- 4. The extent of exposed soils is to be kept to a minimum at all times. Re-vegetation of exposed, non-developed areas with native species is to be achieved as soon as possible to reduce surface erosion:

- 5. Silt fencing is to be properly installed around the perimeter of the work areas, including ensuring the fencing is well dug in to filter any surface water flows and isolate the work areas for wildlife. In addition, where required seepage barriers such as silt fencing, straw bale check dams, and other sediment and erosion control measures will be installed to OPSD requirements in any temporary drainage ditches, around disturbed areas during construction, and stockpiles of fine material. These control measures must be properly maintained to maximize their function during construction and will be removed at the completion of construction once the site has stabilized. Any dewatering of groundwater is to be properly treated before release or directed to the sanitary system;
- 6. The contractor is to be aware of potential Species at Risk in the vicinity of the site including butternut. Appendix 1 of City of Ottawa (2015) describes these species. Appendix 1 should be modified for this development project to include the contact information of the project biologist. Any Species at Risk sightings are to be immediately reported to the project biologist and the Ministry of the Natural Resources and Forestry and activities modified to avoid impacts until further direction by the Ministry;
- 7. As recommended in City of Ottawa (2015) prior to beginning work each day, wildlife is to be checked for by conducting a thorough visual inspection of the work space and immediate surroundings. See Section 2.5 of City of Ottawa (2015) for additional recommendations on construction site management with respect to wildlife. Any turtles, snakes, or other sensitive wildlife in the work areas are to be relocated to the south, south of the hydro corridor. Animals should be moved only far enough to ensure their immediate safety. See Appendix 1 and the links in Section 4 of City of Ottawa (2015) for suggestions on how to effectively relocate turtles and snakes;
- 8. Municipal by-laws and provincial regulations for noise will be followed and utilities will be located in the vicinity of the site prior to construction;
- 9. Waste will be managed in accordance with provincial regulations. The contractor will have a spill kit on-hand at all times in case of spills or other accidents; and,
- 10. Snow removal is to be taken off-site.

Schedule of Proposed Works

It is proposed to remove the woody vegetation not identified for retention in 2018 after the breeding bird period from April 15th to August 15th. City of Ottawa staff (Forester – Planning) is to be contacted at least two business days prior to any tree removal so that staff have the opportunity to verify that any protective fencing, if applicable, has been properly installed. A Tree Cut Permit will be required for all trees greater than 10cm dbh.

Conclusion

The majority of the site is currently forested. The forest is disturbed by non-native species and cutting. No significant woodlots, significant valleylands, significant wildlife habitat, or no other

TREE CONSERVATION REPORT and ENVIRONMENTAL IMPACT STATEMENT

natural heritage features, as identified in the Provincial Policy Statement, are considered present and no Species at Risk utilization was observed or is anticipated to occur. Due to extensive grading and other urban servicing requirements no tree retention is anticipated for the site and two larger maples immediately adjacent to the northeast edge of the site may need to be removed.

It is important that mitigation measures outlined in this report are properly implemented and maintained.

References

City of Ottawa. 2010. City of Ottawa Official Plan. As adopted by City Council, May, 2003 and Updated 2010. Publication: 1-28. 227 pp & Sched.

City of Ottawa. 2015. Protocol for Wildlife Protection during Construction. August, 2015. 14 pp & Append.

DSEL. 2018. Functional Servicing and Stormwater Management for Richcraft Group of Companies, 1298 Ogilvie Road, City of Ottawa. Project No.: 18-1004. February, 2018. 21 pp & Append.

Muncaster, B.W. and D.F. Brunton. 2005. Urban Natural Areas Environmental Evaluation Study. Prepared for the City of Ottawa.

Ontario Ministry of Natural Resources. 2010. Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement, 2005. Second Edition. March 2010. 233 pp.

Ontario Ministry of Natural Resources and Forestry. 2015. Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E. January, 2015. 38 pp.

Paterson Group. 2018. Geotechnical Investigation. Proposed Residential Development, 1298 Ogilvie Road, Ottawa, Ontario. February 5, 2018. Report: PG2530-1 Revision 2. 15 & append

Please call if you have any questions or comments on this Environmental Impact Statement and Tree Conservation Report.

Yours Sincerely,

MUNCASTER ENVIRONMENTAL PLANNING INC.

Bernie Muncaster, M.Sc.

Bene Must

Principal

\1298 Ogilvie Road EISTCR



Vegetation Communities

Cultural meadow

Cultural woodland

Maple deciduous forest

Map 1

FILE: 17-19

Approx. Scale 1:2,000

January 4, 2018

Prepared for: Richcraft Homes Ltd.

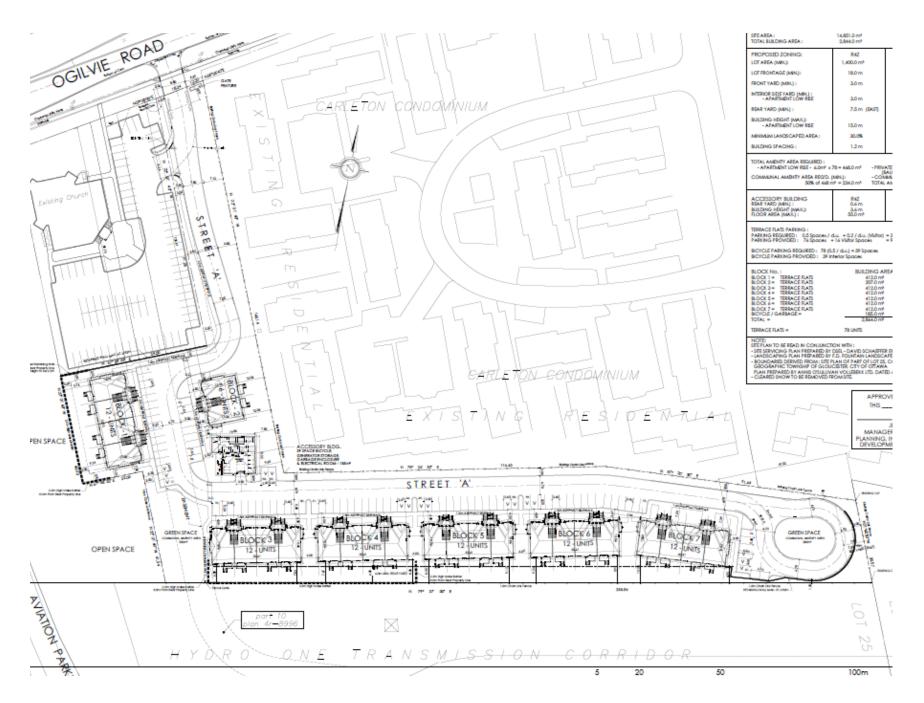
Prepared by:



ENVIRONMENTAL IMPACT STATEMENT & TREE CONSERVATION REPORT

1298 Ogilvie Road, Beacon Hill, City of Ottawa

MAP 2 - SITE PLAN



APPENDIX A

MINISTRY of NATURAL RESOURCES and FORESTRY CORRESPONDENCE

Ministry of Natural Resources and Forestry

Ministère des Richesses naturelles et des Forêts

Kemptville District

 10-1 Campus Drive
 10-1, promenade Campus

 Kemptville ON KOG 1J0
 Kemptville ON KOG 1J0

 Tel.: 613 258-8204
 Tél.: 613 258-8204

 Fax: 613 258-3920
 Téléc.: 613 258-3920

District de Kemptville



Tue. Feb 20, 2018

Bernie Muncaster Muncaster Environmental Planning Inc 491 Buchanan Crescent Ottawa K1J 7V2 (613) 748-3753 bmuncaster@rogers.com

Attention: Bernie Muncaster

Subject: Information Request - Developments

Project Name: 1298 Ogilvie Road - Medium Density Residential Units

Site Address: 1298 Ogilvie Road Our File No. 2018 GLO-4426

Natural Heritage Values

The Ministry of Natural Resources and Forestry (MNRF) Kemptville District has carried out a preliminary review of the above mentioned area in order to identify any potential natural resource and natural heritage values.

The following Natural Heritage values were identified for the general subject area:

- Municipal Drain, Cote-Martin Drain (Non-Sensitive)
- Municipal Drain, South Cyrville Drain (Non-Sensitive)
- Unevaluated Wetland (Not evaluated per OWES)

Municipal Official Plans contain information related to natural heritage features. Please see the local municipal Official Plan for more information, such as specific policies and direction pertaining to activities which may impact natural heritage features. For planning advice or Official Plan interpretation, please contact the local municipality. Many municipalities require environmental impact studies and other supporting studies be carried out as part of the development application process to allow the municipality to make planning decisions which are consistent with the Provincial Policy Statement (PPS, 2014).

The MNRF strongly encourages all proponents to contact partner agencies and appropriate municipalities early on in the planning process. This provides the proponent with early knowledge regarding agency requirements, authorizations and approval timelines; Ministry of the Environment and Climate Change (MOECC) and the local Conservation Authority may require approvals and permitting where natural values and natural hazards (e.g., floodplains) exist.

As per the Natural Heritage Reference Manual (NHRM, 2010) the MNRF strongly recommends that an ecological site assessment be carried out to determine the presence of natural heritage features and species at risk and their habitat on site. The MNRF can provide survey methodology for particular species at risk and their habitats.

The NHRM also recommends that cumulative effects of development projects on the integrity of natural heritage features and areas be given due consideration. This includes the evaluation of the past, present and possible future impacts of development in the surrounding area that may occur as a result of demand created by the presently proposed project.

In Addition, the following Fish species were identified: brook stickleback, central mudminnow, common shiner, white sucker.

Wildland Fire

MNRF woodland data shows that the site contains woodlands. The lands should be assessed for the risk of wildland fire as per PPS 2014, Section 3.1.8 "Development shall generally be directed to areas outside of lands that are unsafe for development due to the presence of hazardous forest types for wildland fire. Development may however be permitted in lands with hazardous forest types for wildland fire where the risk is mitigated in accordance with wildland fire assessment and mitigation standards". Further discussion with the local municipality should be carried out to address how the risks associated with wildland fire will be covered for such a development proposal. Please see the Wildland Fire Risk Assessment and Mitigation Guidebook (2016) for more information.

Significant Woodlands

Section 2.1.5 b) of the PPS states: Development and site alteration shall not be permitted in significant woodlands unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions. The 2014 PPS directs that significant woodlands must be identified following criteria established by the Ontario Ministry of Natural Resources and Forestry, i.e. the Natural Heritage Reference Manual (NHRM), 2010. Where the local or County Official Plan has not yet updated significant woodland mapping to reflect the 2014 PPS, all woodled areas should be reviewed on a site specific basis for significance. The MNRF Kemptville District modelled locations of significant woodlands in 2011 based on NHRM criteria. The presence of significant woodland on site or within 120 metres should trigger an assessment of the impacts to the feature and its function from the proposed development.

Significant Wildlife Habitat

Section 2.1.5 d) of the PPS states: Development and site alteration shall not be permitted in significant wildlife habitat unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions. It is the responsibility of the approval authority to identify significant wildlife habitat or require its identification. The MNRF has several guiding documents which may be useful in identification of significant wildlife habitat and characterization of impacts and mitigation options:

- Significant Wildlife Habitat Technical Guide, 2000
- The Natural Heritage Reference Manual, 2010
- Significant Wildlife Habitat Mitigation Support Tool, 2014

Significant Wildlife Habitat Criteria Schedule for Ecoregion 5E and 6E, 2015

The habitat of special concern species (as identified by the Species at Risk in Ontario list) and Natural Heritage Information Centre tracked species with a conservation status rank of S1, S2 and S3 may be significant wildlife habitat and should be assessed accordingly.

Water

The Ministry of Natural Resources and Forestry (MNRF) has established timing window guidelines to restrict in-water work related to an activity during certain periods. These restricted periods are identified in order to protect fish from impacts of works or undertakings in and around water during spawning and other critical life stages. A suite of appropriate measures should be taken for projects involving in-water works to minimize and mitigate impacts to fish, water quality and fish habitat, and include:

- avoiding in-water works during the timing guidelines;
- installation of sediment/erosion control measures;
- avoiding the removal, alteration, or covering of substrates used for fish spawning, feeding, over-wintering or nursery areas; and
- debris control measures to manage falling debris (e.g. spalling).

Timing guidelines are based on species* presence and are therefore subject to change if new information becomes available. Timing guidelines in Kemptville District are:

new information becomes available. Filming guidelines in Kemptville District are.			
	Waterbody (and applicable geography or Fisheries Management Zone)	Timing Guidelines (no in-water works)	
0	St. Lawrence River (FMZ 20)	March 15 – July 15 (Spring spawning species)	
0	Ottawa River – Lac Des Chats (FMZ 12)	October 1 to July 15 (Spring and fall spawning species, including Lake Trout and Lake Whitefish)	
0	Ottawa River – Lac Deschenes (FMZ 12)	October 15 to July 15 (Spring and fall spawning species, including Cisco)	
0	Ottawa River – Lac Dollard des Ormeaux (FMZ 12)	January 1 to July 15 (Winter and spring spawning species, including Burbot)	
0	Big Rideau Lake (South Burgess and South Elmsley Twps) Charleston Lake (Lansdowne and Escott Twps)	October 1 to June 30 (Spring and fall spawning species, including Lake Trout)	
0 0 0 0 0 0 0 0 0 0	Bass Lake (South Elmsley Twp) Lower Rideau Lake (South Elmsley Twp) Bob's Lake (South Sherbrooke Twp) Christie Lake (South Sherbrooke Twp) Crow Lake (South Crosby Twp) Dalhousie Lake (Dalhousie Twp) Davern Lake (South Sherbrooke Twp) Farren Lake (South Sherbrooke Twp) Grippen Lake (Leeds Twp) Indian Lake (South Crosby Twp) Little Long Lake (Lansdowne Twp) Millpond Lake (South Burgess)	October 15 to June 30 (Spring and Fall spawning species, including Lake Whitefish and Cisco)	

0	Otter Lake (South Elmsley, South Burgess and Bastard Twps)	
0	Otty Lake (North Burgess and North Elmsley Twps)	
0	Pike Lake (North Burgess Twp)	
0	Silver Lake (South Sherbrooke Twp)	
0	Redhorse Lake (Lansdowne Twp)	
0	Tay River (South Sherbrooke, Bathurst, Drummond and North	
	Elmsley Twps)	
0	Wolfe Lake (North Crosby Twp)	
0	Bennett Lake (Bathurst Twp)	
0	Crosby Lake (North Crosby Twp)	
0	Big Rideau Lake (South Burgess, Bastard and South Elmsley	
	Twps)	
0	Gananoque River (Leeds Twp)	
0	Lac Georges (Plantagenet and Alfred Twps)	
0	Gillies Lake (Lanark Twp)	
0	Little Crosby Lake (North Crosby Twp)	
0	McLaren Lake (North Burgess Twp)	January 1 – June 30
0	Mississippi Lake (Drummond, Beckwith and Ramsay Twps)	(Winter and spring spawning
0	Mississippi River (Beckwith, Ramsay, Pakenham and Fitzroy	species, including Burbot)
	Twps)	
0	Raisin River below Martintown dam (Charlottenburgh Twp)	
0	Rideau River (Wolford, Oxford, Montague, Marlborough, South	
	Gower, North Gower, Osgood, Nepean and Gloucester Twps)	
0	South Lake (Leeds Twp)	
0	South Nation River below Plantagenet weir (Plantagenet Twp)	
0	Upper Rideau Lake (North Crosby Twp)	
0	Westport Sand Lake (North Crosby Twp)	
0	Small rivers and streams (denoted on 1:50,000 National	March 15 to June 30
	Topographic System maps as being one lined)	(Spring spawning species)
0	All other waterbodies in FMZ 18	(opining spanning species)

^{*}Please note: Additional timing restrictions may apply as they relate to endangered and threatened species for works in both water and wetland areas. Timing restrictions are subject to change, depending on species found in a given waterbody.

In addition to adhering to the above timing guidelines, a work permit from the MNRF may be required depending on the nature and scope of work. No encroachment on the bed or banks of a waterbody/watercourse (e.g. abutments, embankments, etc.) is permitted without MNRF approval. Additional information regarding work permits may be found online at https://www.ontario.ca/page/crown-land-work-permits#section-2.

The MNRF does not have any water quality or quantity data available. We recommend that the Ministry of the Environment and Climate Change be contacted for such data along with the local Conservation Authority. For further information regarding fish habitat and protocols, please refer to the following interagency, document, Fish Habitat Referral Protocol for Ontario at: http://www.web2.mnr.gov.on.ca/mnr/ebr/fish hab referral/protocol en.pdf.

Additional approvals and permits may be required under the Fisheries Act and the Species at Risk Act; please contact Fisheries and Oceans Canada to determine requirements and next steps. There may also be approvals required by the local Conservation Authority or Transport Canada, and these agencies should be contacted directly to determine requirements. As the MNRF is

responsible for the management of provincial fish populations, we request ongoing involvement in such discussions in order to ensure population conservation.

Species at Risk

A review of the Natural Heritage Information Centre (NHIC) and internal records indicate that there is a potential for the following threatened (THR) and/or endangered (END) species on the site or in proximity to it:

- Barn Swallow (THR)
- Butternut (END)
- Chimney Swift (THR)
- Eastern Meadowlark (THR)

All endangered and threatened species receive individual protection under section 9 of the ESA and receive general habitat protection under Section 10 of the ESA, 2007. Thus any potential works should consider disturbance to the individuals as well as their habitat (e.g. nesting sites). General habitat protection applies to all threatened and endangered species. Note some species in Kemptville District receive regulated habitat protection. The habitat of these listed species is protected from damage and destruction and certain activities may require authorization(s) under the ESA. For more on how species at risk and their habitat is protected, please see: https://www.ontario.ca/page/how-species-risk-are-protected.

If the proposed activity is known to have an impact on any endangered or threatened species at risk (SAR), or their habitat, an authorization under the ESA may be required. It is recommended that MNRF Kemptville be contacted prior to any activities being carried out to discuss potential survey protocols to follow during the early planning stages of a project, as well as mitigation measures to avoid contravention of the ESA. Where there is potential for species at risk or their habitat on the property, an Information Gathering Form should be submitted to Kemptville MNRF at sar.kemptville@ontario.ca.

The Information Gathering Form may be found here:

http://www.forms.ssb.gov.on.ca/mbs/ssb/forms/ssbforms.nsf/FormDetail?OpenForm&ACT=RDR&T AB=PROFILE&ENV=WWE&NO=018-0180E

For more information on the ESA authorization process, please see: https://www.ontario.ca/page/how-get-endangered-species-act-permit-or-authorization

One or more special concern species has been documented to occur either on the site or nearby. Species listed as special concern are not protected under the ESA, 2007. However, please note that some of these species may be protected under the Fish and Wildlife Conservation Act and/or Migratory Birds Convention Act. Again, the habitat of special concern species may be significant wildlife habitat and should be assessed accordingly. Species of special concern for consideration:

Snapping Turtle (SC)

If any of these or any other species at risk are discovered throughout the course of the work, and/or should any species at risk or their habitat be potentially impacted by on site activities, MNRF

should be contacted and operations be modified to avoid any negative impacts to species at risk or their habitat until further direction is provided by MNRF.

Please note that information regarding species at risk is based largely on documented occurrences and does not necessarily include an interpretation of potential habitat within or in proximity to the site in question. Although this data represents the MNRF's best current available information, it is important to note that a lack of information for a site does not mean that additional features and values are not present. It is the responsibility of the proponent to ensure that species at risk are not killed, harmed, or harassed, and that their habitat is not damaged or destroyed through the activities carried out on the site.

The MNRF continues to strongly encourage ecological site assessments to determine the potential for SAR habitat and occurrences. When a SAR or potential habitat for a SAR does occur on a site, it is recommended that the proponent contact the MNRF for technical advice and to discuss what activities can occur without contravention of the Act. For specific questions regarding the Endangered Species Act (2007) or SAR, please contact MNRF Kemptville District at sar.kemptville@ontario.ca.

The approvals processes for a number of activities that have the potential to impact SAR or their habitat have recently changed. For information regarding regulatory exemptions and associated online registration of certain activities, please refer to the following website: https://www.ontario.ca/page/how-get-endangered-species-act-permit-or-authorization.

Please note: The advice in this letter may become invalid if:

- The Committee on the Status of Species at Risk in Ontario (COSSARO) re-assesses the status of the above-named species OR adds a species to the SARO List such that the section 9 and/or 10 protection provisions apply to those species; or
- Additional occurrences of species are discovered on or in proximity to the site.

This letter is valid until: Wed. Feb 20, 2019

The MNRF would like to request that we continue to be circulated on information with regards to this project. If you have any questions or require clarification please do not hesitate to contact me.

Sincerely.

Carolyn Hann Management Biologist carolyn.hann@ontario.ca

Encl.\
-ESA Infosheet
-NHIC/LIO Infosheet