

Muncaster Environmental Planning Inc.

December 18, 2018

Ms. Taylor Marquis Coordinator, Land Development The Regional Group 1737 Woodward Drive, 2nd Floor Ottawa, ON K2C 0P9

Dear Ms. Marquis:

RE: Fernbank Crossing, Phase 5 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 0.6 hectare portion of the Fernbank Crossing lands between Fernbank Road and Shinny Avenue, about 200 metres east of Robert Grant Avenue in the south-central portion of the Fernbank Community (Map 1). The site is part of Lot 28, Concession 10 of the Geographic Township of Goulbourn, City of Ottawa. For the purposes of this report Fernbank Road is considered to be in an east-west orientation.

Proposed Development

Forty-seven townhome units are proposed for the Phase 5 lands, with access via a crescent off of the west side of an extension of Tim Sheehan Place to the south. The 47 townhome units will be in ten Blocks of four to eight units each. Two of the Blocks will front directly onto Tim Sheehan Place. A walkway in the northwest portion of the Phase 5 lands will connect residents with Shinny Avenue to the north. The development will be on full municipal services, with stormwater directed to an existing stormwater management facility approximately 500 metres to the northeast.

Site Context

The site and adjacent lands are designated *General Urban Area* on Schedule B of the City of Ottawa Official Plan, with lands to the south of Fernbank Road in the rural area designated *Agricultural Resource Area*. No terrestrial components of the City's Natural Heritage System are on the site, as shown on the Schedule L3 overlay, with a narrow deciduous forest to the south of Fernbank Road south of the site included in the Natural Heritage System. The Phase 5 lands are not part of or adjacent to a natural area, as identified in the former Region's Natural Environment System Strategy or the Urban Natural Area Environmental Evaluation Study. The closest Natural Area is approximately 1.2 kilometres to the northwest of the Phase 5 lands, in the

northwest portion of the Fernbank community. No environmental constraints are shown for the site or adjacent lands on Schedule K of the Official Plan. No potential aquatic habitat is on or adjacent to the Phase 5 lands, with the Monahan Drain corridor beginning about 700 metres to the northeast of the Phase 5 lands. No forest interior habitat, rare vegetation/landform types, forests greater than 100 years old, riparian cover, Areas of Natural and Scientific Interest or Provincially significant wetlands were identified by MMM (2005) for the site or adjacent lands.

The majority of the site is open and has been in agricultural use for an extended time. A northsouth deciduous hedgerow is in the west portion of the Phase 5 lands. Recent urban residential subdivisions are to the north of the site.

Methodology

This report includes an assessment of the natural environment features, including the potential for specimen trees and Species at Risk. Colour aerial photography (1976-2017) was used to assess the natural environment features in the general vicinity of the site. A survey of the site and adjacent lands was completed on December 9th, 2018 from 09:35 to 10:50. Weather conditions during the survey included a moderate breeze, an air temperature of 0° C, and partly sunny skies. Snow cover up to a 10cm depth was scattered on the site. The site and adjacent lands were walked in a systematic manner to ensure the entire site was observed. In addition, the site was reviewed as part of the overall Fernbank Crossing studies on November 2nd, 2009 (Muncaster, 2009) and June 21st, June 28th and July 5th, 2011 (Muncaster, 2012). The June 21st, June 28th, and July 5th surveys were completed for the entire Fernbank Crossing lands and included the Ministry of Natural Resources and Forestry's methodology for bobolink surveys. Survey points on the overall lands included point counts to the east and west of the Phase 5 lands. See Muncaster (2012; and 2013) for details on these surveys.

The field surveys 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 site is owned by Abbott-Fernbank Holdings Inc. (c/o Regional Group). It is anticipated that the woody vegetation not proposed for retention will be removed in 2019 before the breeding bird period.

Potential Species at Risk

The Ministry of Natural Resources and Forestry (MNRF)'s Make a Map: Natural Heritage Areas website was reviewed on December 8th, 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 (18VR31 - 02). No Species at Risk or Species of Special Concern were noted for this square.

Four Species at Risk, barn swallow, bank swallow, eastern meadowlark, and bobolink, are identified for the overall 10 km square (18VR31) including the site in the Ontario Breeding Bird

Atlas. Eastern meadowlark and bobolink utilize larger grassland areas such as hayfields and were observed on the Fernbank Crossing lands. A Development Plan was approved in 2012 by the Kemptville District Ministry of Natural Resources and Forestry for removal of 82.6 acres of potential habitat for these Species at Risk, including the Phase 5 lands. Compensation was provided in the form of off-site habitat enhancement and maintenance. Bank swallows nest in open sand walls, often in association with sand pits, habitat not present on or adjacent to the Phase 5 lands. Other than the new urban residences, no structures were present on or adjacent to the site and no suitable structures for potential nesting habitat for chimney swift or barn swallow are present. Barn swallow was noted in the north portion of the Fernbank Crossing lands in 2011, but not in proximity to the Phase 5 lands.

Other potential Species at Risk noted by the Kemptville District office of the Ministry of Natural Resources and Forestry for sites in this general area of Kanata and Stittsville included least bittern, Blanding's turtle, butternut, and three bat species: little brown bat, eastern small-footed myotis, and northern long-eared bat. No larger cavity trees for potential bat utilization were observed on or adjacent to the Phase 5 lands. No butternut trees were noted on or within 50 metres of the site. Blanding's turtle was recorded for the overall 10 km square 18VR31 in the Ontario Reptile and Amphibian Atlas but no wetland habitat was present on or adjacent to the Phase 5 lands that may be used by least bittern or Blanding's turtle.

The potential Species at Risk historically reported for the overall City of Ottawa and their habitat requirements were also reviewed, including butternut, American ginseng, eastern prairie fringedorchid, wood turtle, spiny softshell, Blanding's turtle, Henslow's sparrow, loggerhead shrike, eastern meadowlark, barn swallow, bobolink, eastern whip-poor-will, bald eagle, golden eagle, least bittern, little brown bat, eastern small-footed myotis, northern long-eared bat, olive hickorynut, eastern cougar, lake sturgeon, cerulean warbler, and American eel. Specific habitat characteristics for three potential Species at Risk, butternut, bobolink and eastern meadowlark, were observed on the Phase 5 lands. The loss of habitat for the two grassland avian species was compensated for while no butternut was observed on or adjacent to the site.

Existing Conditions

The topography of the site is generally level, with a gentle slope to the east. Topsoil and silty sands underlain by glacial till deposits dominate the Phase 5 lands (GEMTEC, 2018). The depth of overburden ranged between 2.9 and 3.9 metres below the ground surface. Groundwater seepage was not encountered in any of the four test pits advanced by GEMTEC (2018) on August 14th, 2018. GEMTEC (2018) concluded that there were no grade raise restrictions for the Phase 5 lands from a geotechnical perspective.

The site is dominated by cultural meadows (Photo 1). Earlier observations identified much of the Phase 5 lands as hayfields. Topsoil has been stripped from the southeast and northwest portions of the Phase 5 lands. Orchard grass, June meadow grass, common burdock, white-sweet clover, wild carrot, wild parsnip, Canada goldenrod, evening primrose, and Canada thistle were representative of the ground vegetation in the cultural meadow habitats.

A mature, 95cm diameter at breast height (dbh), eastern cottonwood was in the northeast portion of the site (Photo 1). This tree was associated with a former farmhouse to the north of the Phase 5 lands. There appeared to be a good amount of buds on the mature poplar, but several branches were broken. A 32cm dbh apple and smaller Manitoba maple were adjacent to the large cottonwood. The other woody vegetation on the site was associated with a north-south deciduous hedgerow in the west portion of the site (labelled as vegetation community 2 on Map 1). Two dead white elms, 32cm dbh, were at the south end of the hedgerow, with Manitoba maples up to 50cm dbh dominant in the central portion (Photo 2). Many of the Manitoba maple had broken major branches. The north portion of the deciduous hedgerow included Manitoba maple and white elms up to 34cm dbh. Some elms appeared to be in better condition, while others were likely in very poor condition (Photo 3). White ash and basswood in the 30cm and 35cm dbh range, respectively, were also present along the hedgerow, along with common buckthorn and tartarian honeysuckle shrubs.

The tree coverage in the north-south deciduous hedgerow is not continuous and is only a single tree width. The trees are considered of limited wildlife and aesthetic value due to their intermittent nature, dominance of Manitoba maple and white elm, and poor condition of many of the trees. White elm, poplars, Manitoba maple, and ash are not favoured for retention due to their susceptibility to disease, poor form, and/or generally shorter life span. The minimal width and intermittent nature of the hedgerow, along with the adjacent agricultural land use and increasing residential developments greatly limit any current linkage function associated with the site. No coniferous component was observed on the Phase 5 lands.

Wildlife observed during the 2018 survey completed well outside of the growing season included American crow, black-capped chickadee, downy woodpecker, and a squirrel drey. No potential wildlife cavities or stone fences were noted. Other wildlife observed during the field surveys conducted during the growing season on the overall Fernbank Crossing lands included woodchuck, white-tailed deer, Canada goose, ring-billed gull, northern shrike, blue jay, rock pigeon, killdeer, cedar waxing, common grackle, mourning dove, common yellowthroat, European starling, red-winged blackbird, American robin, yellow warbler, savannah sparrow, song sparrow, white-throated sparrow, bobolink, barn swallow, tree swallow, red-tailed hawk, northern harrier, brown-headed cowbird, brown thrasher, alder flycatcher, upland sandpiper, eastern meadowlark, eastern kingbird, northern flicker, northern cardinal and American goldfinch.



Photo 1 – Cultural meadow and mature eastern cottonwood in the east portion of the Phase 5 lands. View looking north, with new residences on the south side of Shinny Avenue to the north



Photo 2 – Manitoba maples dominated many sections of the north-south hedgerow in the west portion of the site. View looking northeast



Photo 3 – Many of the elms in the north-south hedgerow appeared to be in poor condition. View looking northwest

Significant Woodlands

The criteria for significant woodlands in the urban area of Ottawa are found in Official Plan Amendment 179. There are no forests on or contiguous with the site. The established Fernbank Road corridor separates the site from the forest to the south of Fernbank Road. Given the disturbed nature of the site it does not appear to contribute significantly to the forest to the south. No site alterations will occur within approximately 30 metres of the forest south of Fernbank Road and thus no impacts are anticipated on the features and functions of the forest.

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 not expected. No evidence of raptor wintering areas was noted and old growth forests are not present. Areas of broken and fissured rock for potential use by snakes were not observed. The site is isolated from an environmental perspective due to expanding urban residential developments to the north and northeast, and agricultural activity elsewhere.

Impact Analysis and Recommendations

Species at Risk and other Significant Natural Heritage Features

Other than bobolink and eastern meadowlark no Species at Risk utilization was observed or, other than butternut, is anticipated for the Phase 5 and adjacent lands. No butternut was observed on or adjacent to the site and no potential structures for chimney swift or barn swallow are present. Forests are not present and significant wildlife habitat is not anticipated. No aquatic habitat potential was observed or is mapped for the site.

Other than the grassland habitat for bobolink and eastern meadowlark, no significant natural heritage features were observed on or adjacent to the Phase 5 lands. Due to the adjacent construction and on-site disturbances it is anticipated that current condition of the Phase 5 lands do not provide potential nesting habitat for bobolink or eastern meadowlark.

Tree Retention

The quality of the trees on the site is greatly limited by the species and their condition. The longterm aesthetics and local wildlife activity for the site can be enhanced with plantings of native trees and shrubs where feasible. Due to the density of the development and required urban servicing and associated grading no tree retention potential is anticipated for the site. The Grading Plan (Drawing 108180-19GP, December 7th, 2018) by NOVATECH indicates grade raise or cut requirements generally between 0.5 and one metre for the Phase 5 lands.

There are no co-owned trees as there are no trees along the periphery of the Phase 5 lands. No adjacent trees with critical root zones extending onto the site are present. There are no planting sensitivities for the site. It is important that native trees from a local seed stock be used whenever possible, however the landscape architect may choose species that are less sensitive to an urban environment. Recommended species for planting include a mix of coniferous and deciduous trees such as sugar maple, red maple, basswood, red oak, white pine, and white spruce, along with nannyberry, elderberry, and dogwood shrubs. Use of invasive non- native plant material is strongly discouraged.

The following 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 by a qualified biologist within five days of the woody vegetation removal identifies no active nests in the vegetation to be removed;
- 2. Any trees to be retained are to be protected with sturdy temporary fencing at least 1.2 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 the critical root zones 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 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 canopies of 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 required, temporary 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. Re-vegetation of exposed, non-developed areas with native species is to be achieved as soon as possible to reduce surface erosion;
- 4. The contractor is to be aware of potential Species at Risk in the vicinity of the site including butternut, eastern meadowlark, and bobolink. Appendix 1 of City of Ottawa (2015) describes these species. The project biologist for this development is Bernie Muncaster (613-748-3753). Any Species at Risk sightings are to be immediately reported to the project biologist and the MNRF, and activities modified to avoid the potential for impacts until further direction is received by the Ministry. Due to the adjacent construction and on-site disturbances it is anticipated that the current condition of the Phase 5 lands do not provide potential nesting habitat for bobolink or eastern meadowlark. For an abundance of caution site preparation should occur before May 1st or after July 31st to avoid potential nesting and rearing by these species. Alternatively, a survey can be conducted by a qualified biologist within five days of the proposed disturbance to determine presence/absence.
- 5. 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. It is the

responsibility of the contractor to be familiar with all components of City of Ottawa (2015). Any turtles, snakes, or other sensitive wildlife in the work area are to be relocated to the Monahan Drain corridor to the northeast. 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;

- 6. 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; and,
- 7. 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.

Schedule of Proposed Works

It is proposed to remove the woody vegetation not identified for retention in 2019 before the breeding bird period. 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 required protective fencing has been properly constructed. A Tree Cut Permit will be required for all trees greater than 10cm dbh.

Conclusion

A medium density urban residential development is proposed for the 0.6 hectare site on the north side of Fernbank Road, south of Shinny Avenue and east of Robert Grant Avenue in the Fernbank Community. The site is disturbed meadow habitat, with a mature poplar and a north-south deciduous hedgerow. Bobolink and eastern meadowlark were historically in this portion of the Fernbank Community and removal of their habitat has been compensated for. No other significant natural heritage features were observed on the site.

There are no co-owned trees or adjacent trees with critical root zones extending onto the site. Due to grading, other urban servicing requirements, and the density of development no tree retention is anticipated for the site. Planting of native trees and shrubs will add to the features and functions of the area and over time replace the limited functions of the trees to be removed.

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

References

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

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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.

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

Yours Sincerely, MUNCASTER ENVIRONMENTAL PLANNING INC.

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Bernie Muncaster, M.Sc. Principal

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