



Muncaster
Environmental
Planning Inc.

September 7, 2023

Mr. Martin Brazeau
590 Smith Road
Navan, Ontario
K4B 1H8

Dear Mr. Brazeau:

**RE: 590 Smith Road Lot Boundary Adjustment
Environmental Impact Study**

Committee of Adjustment
Received | Reçu le

2024-06-25

City of Ottawa | Ville d'Ottawa
Comité de dérogation

This Environmental Impact Study (EIS) addresses the existing vegetation and other natural heritage components including significant woodlands and, potential Species at Risk utilization on and adjacent to a proposed 5.2 hectare lot boundary adjustment at 590 Smith Road, on the north side of Smith Road, approximately 450 metres east of Tenth Line Road and west of the Village of Navan. The site is within Concession 10, Part of Lot 10 in the Cumberland Geographic Township of the City of Ottawa.

For the purposes of this report Smith Road is assumed to be in an east-west orientation.

Background and Project Description

A mostly rectangular 5.2 hectare land parcel is proposed to be added to 590 Smith Road (Figure 1). An EIS was completed in 2016 for the severance of 590 Smith Road from 612 Smith Road. With the proposed lot boundary adjustment, the retained lands of 612 Smith Road will be approximately 14.2 hectares. Importantly, there are no developments or other site alterations associated with the lot boundary adjustment as the owner of 590 Smith Road wishes to obtain ownership of a portion of the forest to ensure it remains in its existing condition.

The site and adjacent areas are designated rural countryside on Schedule B9 of the City of Ottawa Official Plan. The site is also zoned *Rural Countryside* (RU). The forests on the site are part of the Natural Heritage System Feature Overlay on Schedule C11-C of the Official Plan. No Natural Heritage System Core Areas, Linkage Areas, Significant Wetlands, Natural Environment Areas, or Areas of Natural and Scientific Interest are on or adjacent to the site, with the closest Natural Heritage System Core Area approximately 725 metres to the west, associated with Mer Bleue. This is also the closest Provincially Significant Wetland and Area of Natural and Scientific Interest. No unevaluated wetlands are shown on the geoOttawa layer on the site, with the closest mapped wetlands approximately 250 metres to the north of the northeast corner of the

lot boundary adjustment. No environmental constraints are mapped on or adjacent to the site on Schedule C15 of the Official Plan.

Methodology

This EIS was prepared in accordance with the City's EIS Guidelines, with guidance from the Natural Heritage Reference Manual (OMNR, 2010). The major objective of this EIS is to assess the features and functions of the on-site and adjacent natural environment conditions.

Colour aerial photography (1976 - 2021) was used to assess the natural environment features in the general vicinity of the site. A field review of the lot boundary adjustment and adjacent lands was completed from 10:40 to 12:45 on August 31st, 2023, under sunny skies, a light air, and an air temperature of 18° C. The field survey and this report were completed by Bernie Muncaster, who has a Master's of Science in Biology and over thirty-five years of experience in completing natural environment assessments.

Existing Conditions

The lands proposed for a lot boundary adjustment are generally level with no clear changes in topography. The soils on the proposed adjustment lands are mapped as well-drained fine sands and sandy loams which is consistent with the field observations.

Residences and extensive agricultural operations along the Smith Road corridor limit potential linkages from the lands proposed for a lot boundary adjustment to Mer Bleue to the west. However, some linkage function is anticipated with the forests to the north and east via a series of forests south of Navan Road.

The south portion of the lands proposed for lot boundary adjustment were formerly used as horse pasture and is a cultural meadow (Photo 1) dominated by common non-native and/or invasive ground flora including bluegrass, awnless brome grass, June meadow grass, orchard grass, reed canary grass, field sow-thistle, common dandelion, Canada thistle, common burdock, Canada goldenrod, tall goldenrod, New England aster, common yarrow, common milkweed, white-sweet clover, red clover, tufted vetch, bird's-foot tick trefoil, and lady's thumb.

The forest which occupies the central and north portions of the lands proposed for the lot boundary adjustment contain upland mixed and deciduous forests (Photo 4), up to 380 metres in depth. Sugar maple and red maple are well represented throughout. Where the coniferous component is greater than 25 percent white pine, white cedar, white spruce, and eastern hemlock are common and the forest is shown as a mixed forest on Figure 1 (Photo 2 and 3). White ash, green ash, white birch, trembling aspen, American beech, black cherry, and red oak are also well represented in the deciduous forest component. Crack willow and small black walnut stems are along the south boundary of the forest. The largest trees are white pine, sugar maple, and white ash in the 60cm diameter at breast height (dbh) range, but most trees are less than 25cm dbh (Photos 2, 3, and 4). This suggests historical logging for selective tree removal and/or former pasture activity. The forest appears to be in generally good condition with some windthrow (Photo 6) but less than the windthrow in many of the forests in the general area. The windthrow and historical cutting has resulted in open areas of the canopy in a few locations.

Common buckthorn and glossy buckthorn shrubs are common in portions of the forest understory, with red-osier dogwood, round-leaved dogwood, beaked hazel, red raspberry and slender willow also present, along with regenerating ash, maple, white spruce, American beech, red oak, white pine, and balsam fir stems. The ground flora includes many native species reflecting less disturbed conditions such as eastern bracken, lady fern, New York fern, marginal wood fern, eastern hay-scented fern, starflower, pipsissewa, tall white lettuce, wild sarsaparilla, Canada mayflower, wild ginger, Indian tobacco, partridge-berry, Indian cucumber-root, woodland horsetail, ground pine, and ground cedar, with thicket creeper, common dandelion, small white aster, panicled aster, flat-topped aster, heart-leaved aster, small enchanter's nightshade, purple-flowering raspberry, and Pennsylvania sedge also present. Many lower areas in the forest have wetland affinities and here ostrich fern, sensitive fern, spotted jewelweed, fowl manna grass, hop sedge, lake-bank sedge, purple loosestrife, boneset, water horehound, path rush, and false nettle are common along with narrow-leaved meadowsweet shrubs. There are many trails in the forest (Photo 5), likely used for selective tree removal over the decades. Along the trails the ground flora is often reflected of disturbed conditions including common burdock, common plantain, heal-all, colt's-foot, common ragweed, Canada goldenrod, common dandelion, white avens, yellow wood sorrel, and common strawberry.

Wildlife observations on and adjacent to the proposed adjustment lands include American crow, common raven, wild turkey, black-capped chickadee, downy woodpecker, northern flicker, song sparrow, blue jay, American robin, great-crested flycatcher, northern leopard frog, grey squirrel and red squirrel. A turkey vulture was observed overhead. A few of the larger trees in the forest contained cavities at suitable heights that could be used for wildlife. No stone piles or bedrock fissures were observed.

No potential aquatic habitat was observed on or adjacent to the lot boundary adjustment lands.



Photo 1 – Cultural meadow in the south portion of the lot boundary adjustment lands, with view looking north to the mixed forest



Photo 2 – Typical condition for the south portion of the mixed forest in the lands proposed for lot boundary adjustment. View looking northwest



Photo 3 – Another portion of the mixed forest. This example is in the central portion of the lands proposed for lot boundary adjustment. View looking north



Photo 4 – Upland maple forest in the northwest portion of the lands proposed for lot boundary adjustment. View looking northeast



Photo 5 – Trails are common in the forests in the central and north portions of the lands proposed for lot boundary adjustment. View looking north



Photo 6 – Windfall is present but not common through the forests. This example is along the west edge of the site in the upland deciduous forest. View looking northeast

Species at Risk

No butternuts or other Species at Risk were observed during the field surveys. On August 24th, 2023 the MNR's Make a Map: Natural Heritage Area website was reviewed again. 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 proposed adjustment lands and adjacent areas (18VR62-48 and -49). Two Species at Risk were identified for these squares; eastern meadowlark and bobolink. Bobolink and eastern meadowlark utilize large grassland areas including hay fields. The meadow habitat is too small and lacks core habitat to be suitable for eastern meadowlark and bobolink nesting. The total size is approximately 2.25 hectares, which is much less than the minimum size of five hectares identified in the Ministry of Natural Resources and Forestry's General Habitat Description and the maximum depth of the meadow habitat is about 110 metres. Two species of special concern, wood thrush and eastern wood pewee are also listed for these squares in the database. As forest interior habitat is present in the forest habitat on and adjacent to the lands proposed for the lot boundary adjustment these forest nesting birds may be found on the site.

Species at Risk reported in the Ontario Breeding Bird Atlas for the 10 km square 18VR62 that includes the site and general area are least bittern, bobolink, eastern meadowlark, barn swallow (now species of special concern), bank swallow and chimney swift. Least bittern is found in large undisturbed expanses of cattail, open water and other marshes. Chimney swift nests predominantly in open chimneys and sometimes in tree hollows. Bobolink and eastern meadowlark are discussed above. No structures are present on the lot boundary adjustment lands. Suitable wetland or sand bank habitats were not observed on the proposed lot boundary adjustment lands least bittern or bank swallow, respectively. No open brick chimneys on the adjacent buildings that may be used by chimney swift were noted. The barns to the northeast on the adjacent lands are well maintained with no evidence of barn swallow nesting and no open rafters on the outside or ready access to the inside.

The potential Species at Risk in the City of Ottawa were also reviewed. Many endangered and threatened species have historically been reported in the overall City, including butternut, American ginseng, eastern prairie fringed-orchid, wood turtle, spiny softshell, butternut, Blanding's turtle, musk turtle, Henslow's sparrow, loggerhead shrike, little brown myotis, northern long-eared bat, small-footed myotis, olive hickorynut, chimney swift, eastern meadowlark, bank swallow, bobolink, eastern whip-poor-will, bald eagle, golden eagle, cerulean warbler, least bittern, eastern cougar, lake sturgeon, and American eel.

The habitat requirements of the above species along with those listed as special concern were reviewed. Although butternut is found in a variety of habitats in eastern Ontario, no butternuts were observed on or within 50 metres of the lot boundary adjustment lands. The understory of the on-site forests is too thick to be used by eastern whip-poor-will and the density of potential cavity trees for summer bat colony use is less than the 10 per hectare recommended for higher quality potential bat habitat.

Significant Woodlands

As outlined in Section 5.1 of City of Ottawa (2022b), forests in the rural portion of the City of Ottawa are evaluated using the criteria in Section 7 of the Natural Heritage Reference Manual (OMNR, 2010). For the Ottawa East – Bearbrook rural planning area, which includes the site, a contiguous woodland of twenty hectares or greater or with forest interior habitat of at least two hectares is considered significant. As indicated above the on-site forests are contiguous with forests to the north, in many cases extending to the Navan Road corridor. The total size of the contiguous forest is approximately 62.6 hectares, resulting in the overall contiguous forest, including the forests on the lands proposed for lot boundary adjustment to be considered significant woodlands. Greater than two hectares of forest interior habitat is also present. The forests within the lot boundary adjustment are not needed for the contiguous forests to be considered significant woodlands. Forest interior habitat is also present in contiguous forests to the north, south of Navan Road.

Significant Wildlife Habitat

The potential for significant wildlife habitat was assessed using the guidance in OMNR (2010) and MNR (2015). Potential components which may lead to a designation of significant wildlife habitat include seasonal concentration areas of animals, rare vegetation communities or specialized habitat for wildlife, habitat for species of conservation concern, and animal movement corridors. As indicated above wood thrush and eastern wood pewee, species of special concern, have the potential to utilize the on-site and adjacent forests and associated forest interior habitat. The field observations would not trigger other significant wildlife habitat designation with respect to the ELC communities present. 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. No rare vegetation communities as noted in MNR (2015) or rare or specialized habitats were observed. No evidence of raptor utilization was seen and old growth forest is not present. The number of potential tree cavities that may support maternity colonies for bats is less than the density for high quality habitat. Areas of broken and fissured rock or stone for potential use by snakes and other wildlife were not observed. No rare vegetation communities as noted in MNR (2015) or rare or specialized habitat including seeps or springs are on or adjacent to the site. Though the on-site forests have wetland affinities in areas, the low extent of potential standing water would not appear suitable for supporting amphibian or turtle habitat.

Residences and extensive agricultural operations along the Smith Road corridor limit potential linkages from the lands proposed for a lot boundary adjustment to Mer Bleue to the west. However, some linkage function is anticipated from the forests to the north and east via a series of forests south of Navan Road.

Impact Analysis and Recommendations

Natural heritage features, as identified in the Provincial Policy Statement and OMNR (2010), observed on and adjacent to the lands proposed for lot boundary adjustment are significant woodlands and potential significant wildlife habitat. This section of the EIS is different from other reports as no development or other site alterations are proposed in association with the lot boundary adjustment. The Applicant has indicated that he wishes to add the forest to the existing parcel to ensure no impacts in the future to the forest. It is recommended that consideration be given to changing the zoning of the forests to open space to assist in their future preservation.

The following additional mitigation measures are recommended to protect the environment in general:

- to assist with avoiding potential impacts on the forests all pets are to be under control at all times and kept out of the forests;
- outdoor lighting is to be limited as much as possible and not directed towards the adjacent forests;
- plantings of native vegetation in the meadow habitat will provide a diversity of natural environment and aesthetic features and augment the features and functions of the adjacent forest. To provide a natural appearance, trees and shrubs should be planted in a random, cluster fashion rather than in a grid system. Potential native species to plant include nannyberry, elderberry, ninebark, and dogwood shrubs along with sugar maple, red maple, basswood, balsam fir, white cedar, tamarack, red oak, and white spruce trees. Sourcing native species from local seed sources is strongly recommended to ensure adaptability and longevity;
- Species at Risk sightings should be reported to the Ministry of the Environment, Conservation, and Parks.

Conclusion

A 5.2 hectare lot boundary adjustment is proposed to be added to the existing land parcel at 590 Smith Road on the north side of Smith Road east of Tenth Line Road. The Applicant has indicated that he wishes to add the forest to the existing parcel to ensure no impacts in the future to the forest. The on-site and adjacent contiguous forests are considered significant woodlands and potential significant wildlife habitat is present in the forests. Native plantings are recommended for the meadow habitat to the south of the forests.

References

City of Ottawa. 2022. Protocol for Wildlife Protection during Construction. Revised September, 2022. 14 pp & Append.

City of Ottawa. 2022b. Significant Woodlands - Guidelines for Identification, Evaluation, and Impact Assessment. Revised December, 2022. 31 pp & Append.

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 on this Environmental Impact Study.

Yours Sincerely,

MUNCASTER ENVIRONMENTAL PLANNING INC.



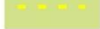


Bernie Muncaster, M.Sc.
Principal

\\612SmithRoad23



Legend

-  Existing Severance
-  Retained Lands
-  Lands to be Added to 590 Smith Road
-  Vegetation Communities



Approx. Scale 1:3,600



Vegetation Communities

- ① Cultural meadow
- ② Upland mixed forest
- ③ Upland maple deciduous forest

2021 air photo from geoOttawa

September 2, 2023

FILE: 15-22

Figure 1

Prepared for: **Martin Brazeau**

Prepared by:



Muncaster
Environmental
Planning Inc.

ENVIRONMENTAL IMPACT STUDY

**Lot Boundary Adjustment
590 Smith Road
Cumberland Geographic Township, City of Ottawa**