



Muncaster  
Environmental  
Planning Inc.

May 13, 2022

Mr. Annibale Ferro  
Vice President, Operations  
Uniform Developments  
117 Centrepointe Drive, Suite 300  
Nepean, ON  
K2G 5X3

Dear Mr. Ferro:

**RE: McNeely Landing (formerly RSSR/Laing Lands), Town of Carleton Place  
Environmental Impact Study and Tree Conservation Report - Revised**

This Environmental Impact Study (EIS) and Tree Conservation Report (TCR) assesses a proposed urban residential development of approximately 431 units in the Highway 7 South planning area of the Town of Carleton Place. The site is on the west side of McNeely Avenue, beginning approximately 450 metres south of Highway 7. For the purposes of this report McNeely Avenue is considered to be in a north-south orientation. This report has been revised to address comments from Town and MVCA staff (November 2<sup>nd</sup>, 2021).

***Project Description***

The new urban lots will be accessed off the west side of McNeely Avenue and off the south side of an extension of Captain A. Roy Brown Boulevard, which will be extended west to Highway 15. An internal road network will also be constructed. The new urban residential development will include 204 single detached homes, 171 townhomes and 56 units in a high density unit in the north-central portion of the site. A 1.62 hectare school site is proposed for the north-central portion of the site, with an adjacent 1.86 hectare park to the west. The development will be on full municipal services. A stormwater management facility will be in a 1.99 hectare block in the northeast corner of the site. The Beckwith Drain, which enters the northwest corner of the site from the west, will be realigned as part of the extension of Captain A. Roy Brown Boulevard. The Beckwith Drain flows to Lavallee Creek and ultimately outlets to the Mississippi River, about 2.5 kilometres to the northeast of the site. The stormwater facility will provide quantity control by matching post-development rates to pre-development conditions, and enhanced quality control designed to provide 80 percent total suspended sediment removal. The facility will outlet to the realigned Beckwith Drain along the south side of the road extension.

## ***Methodology***

The objectives of this EIS and TCR are:

- Research, identify and map the natural feature(s), values and functions that may be affected;
- Describe and map the proposed development in relation to the natural features;
- Predict the effects of the proposed development on the various components of the environment on the site such as wildlife, fish, vegetation, soil, surface water, ground water, air and any other relevant factors, taking into consideration effects during and after site alteration;
- Evaluate the significance of predicted negative and positive effects on the environment;
- Itemize and recommend all measures that should be taken to reduce or mitigate the predicted negative effects;
- Evaluate the cumulative effect that the project (and any other known projects or activities) may have following implementation of any mitigation measures on the natural features and ecological functions identified for protection; and
- Conclude with a professional opinion on whether negative effects will occur, the significance of such effects, and whether ongoing monitoring is required.

The TCR component of this report also includes the required components of a tree planting and conservation plan, including defining which stands of trees or individual trees warrant retention, outlining the protection plan for those trees during construction and over the long term, and identifying additional tree planting measures.

This EIS and TCR was prepared with guidance from the Natural Heritage Reference Manual (OMNR, 2010). The field surveys and this report were completed by Bernie Muncaster, who has a Master's of Science in Biology and over thirty-two years of experience in completing natural environment assessments. Michelle Muncaster assisted with the field surveys.

Colour aerial photography (1985-2019) was used to assess the natural environment features in the general vicinity of the site. Potential Species at Risk in the general area were identified from Ministry of Natural Resources and Forestry databases, past correspondence from projects in the general area including the Highway 7 South Conceptual Development Plan, and the Ontario Breeding Bird and Reptile and Amphibian Atlases.

In addition to several surveys completed by Muncaster (2013) between April 30<sup>th</sup> and November 5<sup>th</sup>, 2012 as part of the natural heritage component of the Highway 7 South Conceptual Development Plan, field reviews of the site were undertaken on August 6<sup>th</sup>, 2020 beginning at 11:40 and on October 1<sup>st</sup>, 2020 beginning at 13:30. Weather conditions on August 6<sup>th</sup> included a light breeze, partly cloudy skies, and an air temperature of 24° C, with a light breeze, partly cloudy skies, and an air temperature of 14° C on October 1<sup>st</sup>. The current conditions of the agricultural fields were reviewed on May 31<sup>st</sup>, 2021 at 07:40, with small areas mapped as wetland reviewed on May 9<sup>th</sup>, 2022 at 12:30.

### ***Site Context***

The site is in a Residential District of Carleton Place, as identified on Schedule A of the Official Plan. The natural environment features of the site were extensively studied as part of the Highway 7 South Conceptual Design Plan. These results are summarized in an Existing Conditions Report (Muncaster, 2013). The current site was identified in Muncaster (2013) as a combination of hayfields, other meadows, a small deciduous forest, and hedgerows in the east, and meadows, thickets, and coniferous and deciduous forests in the west.

### ***Existing Conditions***

A channel along the northeast edge of the site was not considered by Muncaster (2013) to be fish habitat. This channel was likely an original part of the Beckwith Drain, with the inputs altered as the Beckwith Drain was realigned. Since then the channel has been dug as a roadside ditch on the south side of Captain A. Roy Brown Boulevard. Paterson (2020) note that the long-term groundwater table is expected at depths between four and five metres below ground surface.

The topography of the site is variable, with the east half sloping to the north except the southeast corner, which slopes to the south. The central portion generally slopes to the east with a more notable topographical relief to the east in the north-central part of the site. The southwest part slopes to the west, with the northwest section sloping to the north. Paterson (2020) described the subsurface profile as a combination of hard to very stiff silty clay, silty sand, and glacial till. Many areas have shallow bedrock, with rock at the surface common in the cultural habitats and the forests. No test pits by Paterson (2020) extending beyond a depth of 3.8 metres. Paterson (2020) note that the geological mapping indicates the site is underlain by sandstone and dolomite bedrock of the March Formation. Although some mapping shows organic soils in the northeast corner of the site, this was not described by Paterson (2020).

### ***Upland Forests***

#### **Sugar Maple – Ironwood Deciduous Forest**

This upland forest in the northwest portion of the site is identified as vegetation community ‘G’ on Figure 1. Sugar maple is dominant (Photo 1), with ironwood well represented in many areas. The forest canopy is generally closed throughout the deciduous forest. Black cherry, basswood, and white elm are also present. Most trees are in the 15cm to 30cm diameter at breast height (dbh) range, with scattered trees in the forest up to 45cm dbh and mature sugar maples (a few with potential wildlife cavities) and white elm up to over 90cm and 60cm dbh, respectively along former fence lines and in the northeast portion of the forest (Photo 2). In particular a specimen sugar maple over 90cm dbh is identified on Map 1 in the northeast portion of the sugar maple-ironwood deciduous forest. Dead white ash up to 30cm dbh are also present. Windthrow and natural deadfall are common. Other than the ash and some of the elms with poor leaf out, the remaining trees in the upland deciduous forest appear to be in generally good condition. As shown on Figure 2 the development proposal has been modified to retain within a park block the northwest upland deciduous forest, including the mature sugar maples and potential wildlife cavity trees.

Understory and ground flora in the upland deciduous forest are generally sparse due to the dominant maple and associated shading. Prickly ash, glossy buckthorn, and common buckthorn shrubs are established in areas, along with regenerating stems of maple, ironwood, basswood, and ash. Garlic mustard, blue cohosh (dominant in areas), trout lily, Canada mayflower, Pennsylvania sedge, thicket creeper, partridgeberry, clintona, herb robert, and wild grape are representative of the ground flora.

Evidence of logging in the upland deciduous forest includes an old access road and stumps. Pit and mound topography and ridges are also present (Photo 1). No vernal pools were observed.

#### White Cedar Coniferous Forest

The cedar cover in the west forest is very thick, with the white cedar stems small, less than 20cm dbh (Photo 3). Due to the thick density of stems the understory and ground cover are very limited in most areas. A few trembling aspen stems up to 30cm dbh are among the cedar trees. While the cedars generally appear to be in good condition, fungus coverage was extensive on many of the poplar trees.

Where the canopy is more open, common juniper, common buckthorn, and glossy buckthorn are present, along with regenerating cedar, ash, and poplar stems. Ground cover is limited and includes Canada goldenrod, tall goldenrod, heart-leaved aster, wild grape, thicket creeper, common milkweed, and common dandelion.

#### Ash Deciduous Forest

Most of the dominant white ash and green ash appear dead in this approximately 0.3 hectares in the northeast corner of the site, with extensive evidence of emerald ash borer (Photos 4 and 5). White elm, sugar maple, basswood, apple, bur oak, red maple, and white cedar are also present. The largest trees are 40cm dbh basswood, with most trees in the 20cm – 30cm dbh range. Prickly ash and common buckthorn are in the understory, along with regenerating ash, elm and bur oak stems. The ground flora includes Canada goldenrod, tall goldenrod, bittersweet nightshade, large-leaved aster, heart-leaved aster, paniced aster, herb robert, Pennsylvania sedge, thicket creeper, and common dandelion. A few lower pockets contained joe-pye-weed, with broad-leaved cattail and purple loosestrife in the roadside ditch adjacent to this small forested area.

#### *Cultural Woodland*

Where the tree cover is between 25 and 60 percent, the vegetation community (labelled 'C') on Figure 1 is identified as a cultural woodland. White pine, white cedar, white elm, sugar maple, Manitoba maple, white ash, and basswood are the common species (Photo 11). The largest trees are basswood and sugar maple up to 42cm dbh along a former north-south hedgerow in the north-central portion of the site.

The understory flora in the cultural woodlands includes a dominance of prickly ash in many areas. Wild gooseberry, common buckthorn, and common juniper shrubs are also present, along with regenerating stems of sugar maple, ash, basswood, and Manitoba maple. The ground flora is generally reflective of disturbed conditions and includes Pennsylvania sedge, heart-leaved aster, small white aster, New England aster, poison ivy, Canada goldenrod, white snakeroot, thicket creeper, silvery cinquefoil, and common strawberry.

The small portion of cultural woodland extending onto the site in the west-central portion of the south site boundary is dominated by Manitoba maple.

#### *Cultural Meadows and Ploughed Fields*

Ploughed fields (Photos 6 and 7) dominate the southeast portion of the site, with an adjoining ploughed field extending to the north in the central-east part. Small areas of cultural meadow are also present. Common brome grass, common mullein, field pussytoes, blueweed, Canada thistle, tall goldenrod, Canada goldenrod, rough-stemmed goldenrod, heart-leaved aster, St. John's wort, common strawberry, daisy fleabane, common milkweed, common ragweed, yellow bedstraw, white bedstraw, heal-all, lamb's quarter, white sweet-clover, red clover, white clover, tufted vetch, crown vetch, yellow goat's-beard, alfalfa, wild carrot, and bird's-foot trefoil are representative of the ground flora in the meadow habitat, including the edges of the ploughed fields.

Common juniper, tartarian honeysuckle, prickly ash, and common lilac shrubs are scattered in the meadow habitats, along with regenerating maple stems.

#### *Cultural Thickets*

Prickly ash is dominant in many areas of the cultural thickets (Photo 8), defined as where shrub cover is greater than 25 percent and tree cover is less than 25 percent (vegetation community 'B' on Figure 1). Common juniper is well represented in many areas as well and is dominant in the northwest thicket habitat (Photo 9). Common barberry, tartarian honeysuckle, red raspberry, and common buckthorn shrubs are also present, along with regenerating ash, basswood, and elm stems (Photo 10). Scattered white pine up to 30cm dbh and smaller basswood, white cedar, and white elm are also in the cultural thickets.

Poison ivy is a dominant ground flora in many areas of the cultural thickets. Common brome grass, timothy, heal-all, bladder campion, common strawberry, wild carrot, blueweed, white bedstraw, heart-leaved aster, Canada goldenrod, tall goldenrod, rough-stemmed goldenrod, common mullein, daisy fleabane, alfalfa, wild parsnip, evening primrose, common yarrow, common milkweed, black-eyed susan, bouncing bet, ox-eye daisy, pearly everlasting, brown knotweed, white-sweet clover, spreading dogbane and yellow goat's-beard are also representative of the ground flora in the thicket habitats.

Much of the tree cover in the cultural thickets appeared to be in poor condition with very little leaf-out on most of the ash and white elm trees, which are up to 25cm dbh. Scattered black cherry, white pine, apple, and white cedar in better condition are between 15 and 30cm dbh.

### *Deciduous Hedgerows*

North-south deciduous hedgerows are common between the fields, including a hedgerow immediately east of the southeast site edge. Sugar maple is dominant in many of the hedgerows, with white elm, green ash, white ash, black cherry, and Manitoba maple also present (Photo 13). Sections of the hedgerows in the southwest portion of the site have intermittent tree coverage. Many of the ash appear to be dead, but some examples with leaf-out are up to 30cm dbh. Sugar maple and Manitoba maple in the 60cm to 80cm dbh range are the largest hedgerow trees (Photo 12). In addition to the ash, many of the white elm had very little leaf-out and dead major branches are common on the Manitoba maples. Prickly ash shrubs are dominant among the hedgerow trees, with common buckthorn, chokecherry, common lilac, staghorn sumac, and tartarian honeysuckle also present. Wild grape coverage was extensive on the lower branches of many of the hedgerow trees.

### *Beckwith Drain*

The Beckwith Drain originates to the west of the site. Approaching Highway 15 the Drain is channelized, including a reach along the west side of the highway, with a typical trapezoid ditch cross-section. East of Highway 15 the Drain flows onto the site and through the upland maple deciduous forest. In this reach the Drain resembles more of a natural channel with meandering and extensive woody debris. The clear water was up to 40cm in depth on May 9<sup>th</sup>, 2022, with wetted widths between two and three metres. The substrate is dominated by fines. To the east, north of the northeast portion of the site, the majority of the Drain flow appears to have intercepted in a ponded area to the west of the current terminus of the Captain A. Roy Brown Boulevard extension, with ditches excavated on both sides of the extension.

### *Mapped Wetland Areas*

Two areas east of Highway 15 are mapped as wetlands on some of the background mapping. An area in the southwest corner of the site is considered an upland ash deciduous forest. This area is dominated by white ash, and green ash, with white elm very common in many areas. Bur oak, white cedar, and Manitoba maple are also well represented. Common buckthorn and prickly ash are dominant in the understory, with common juniper, apple, and staghorn sumac common. The west portion of the mapped wetland is within a cultural meadow.

A smaller mapped wetland area is immediately to the east of Highway 15 south of the Beckwith Drain. The majority of this area is also an upland deciduous forest with white ash, green ash, and trembling aspen dominant. Common buckthorn is abundant in the understory, with glossy buckthorn, and prickly ash well represented. There is a small portion of this area, approximately 200 m<sup>2</sup>, where reed canary grass and broad-leaved cattail are present. This area is too small to map as a vegetation community and some of it is present in the Highway 15 road allowance.

Wildlife observed during the field surveys included wild turkey with immatures, song sparrow, northern flicker, eastern kingbird, American robin, eastern phoebe, least flycatcher, great-crested flycatcher, European starling, common grackle, red-winged blackbird, common yellowthroat, yellow warbler, brown thrasher, American woodcock, American crow, American goldfinch, mourning dove, black-capped chickadee, northern cardinal, blue jay, eastern chipmunk, red squirrel, woodchuck, and white-tailed deer tracks. A few of the sugar maples in a former west-east hedgerow in the south portion of the upland maple deciduous forest contained potential wildlife cavities and a large snag was also present here. A few rock piles which may provide snake hibernacula were noted in the cultural thickets and along the edges of the meadow habitats. No snakes were observed during the 2020 field surveys, with one garter snake noted in the 2012 surveys as part of the natural heritage component of the Highway 7 South Conceptual Development Plan. This observation was approximately 450 metres to the northeast of the northeast corner of the current site.



*Photo 1 – Upland maple forest in the northwest portion of the site. View looking southwest*



*Photo 2 – Mature sugar maple along former fence line in the maple forest in the northwest portion of the site. View looking northeast*



*Photo 3 - Typical tree size and density of the upland cedar coniferous forest in the west portion of the site. View looking northwest*





*Photo 4 – Upland ash deciduous forest in the northeast corner of the site.  
View looking northeast*



*Photo 5 – Impacts of emerald ash borer on the ash forest in the northeast corner of the site.  
View looking west*



*Photo 6 – Ploughed fields in the southeast portion of the site. View looking northwest to intermittent hedgerow, ploughed field, and mores established hedgerows in the background*



*Photo 7 – Ploughed field in the southeast corner of the site. View looking north*



*Photo 8 – Dense coverage of prickly ash in the thicket habitat in the west-central portion of the site. This is not fun walking! View looking southwest*



*Photo 9 – Cultural thicket habitat in the northwest portion of the site. View looking northeast to the maple forest in the background*



*Photo 10 – Cultural thicket in the northeast portion of the site. View looking north*



*Photo 11 – Cultural woodland in the north-central portion of the site.  
View looking southeast*



*Photo 12 – Mature sugar maples in the north portion of the north-south hedgerow in the central portion of the site. View looking northwest*



*Photo 13 – South portion of north-south deciduous hedgerow in the east portion of the site. View looking northwest*

## ***Potential Natural Heritage Features***

### Species at Risk

The Ministry of Natural Resources and Forestry Make-a-Map database was reviewed. 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 one km squares (18VQ19 – 17 and - 27) including the site and adjacent general lands. No Species at Risk were reported for these squares. Chimney swift, bobolink, eastern meadowlark, barn swallow and bank swallow are Species at Risk reported in the Breeding Bird Atlas for the 10 kilometre square (18VQ19) that includes the site and general area. Chimney swift nest in open larger chimneys without liners and historically in tree hollows. Barn swallow nest on bridges, barns, and other structures with open rafters. No structures that may be used for nesting by barn swallow or chimney swift are on the site. Bobolink and eastern meadowlark utilize larger open grassland areas such as hayfields, and these species were reported by Muncaster (2013) to the west of the site. All on-site active agricultural fields were ploughed in the spring of 2021 before the nesting season and in this condition the fields are not considered potential bobolink or eastern meadowlark nesting habitat.

Other potential Species at Risk reported in the general area include the endangered butternut and the threatened Blanding's turtle, least bittern, bat species, and eastern whip-poor-will. Butternut is found in a variety of habitats and is relatively common in many areas of eastern Ontario. No butternuts were observed within the Highway 7 South planning area by Muncaster (2013) and none was observed during the 2020 field surveys. The density of cavity trees is less than the 10 per hectare threshold used by the Ministry for potential bat cavity habitat. Whip-poor-will utilize rock or sand barrens with scattered trees, savannahs, old burns or other disturbed sites in a state of early to mid-forest succession, or open conifer plantations. Whip-poor-will were not heard during evening surveys following Ministry protocol completed by Muncaster (2013). Least bittern utilizes larger open marsh areas, habitat not present on or adjacent to the site. Blanding's turtle is found in relatively undisturbed marshes and swamps and also utilizes upland habitats for nesting and moving among wetland parcels. No wetland habitat is on the site and during surveys following Species at Risk targeted survey protocols, Blanding's turtle and least bittern were not observed by Muncaster (2013) in the Highway 7 South planning area. A species of special concern, snapping turtle, was observed by Muncaster (2013) along the Highway 7 corridor, but a minimum of 600 metres northeast of the site.

In summary, no butternut was observed during the 2020 or 2013 field surveys. No wetlands with potential turtle habitat are on or within 120 metres of the site. Bobolink and eastern meadowlark were reported in fields to the east of the site in the field surveys by Muncaster (2013) for the Highway 7 South Conceptual Development Plan. If the on-site fields revert to hayfields, the fields should be surveyed for potential nesting habitat by bobolink and eastern meadowlark prior to site disturbances.

### Significant Woodlands

Woodlands are evaluated based on the standards and criteria in Table 7.2 of the *Natural Heritage Reference Manual* (OMNR 2010). As the regional forest cover is approximately 57 percent, any contiguous woodland that is at least 50 hectares should be considered significant following the Table 7.2 size criterion. The upland cedar and maple forests in the west and northwest portions of the site are contiguous with a larger portion of the maple forest further to the north. The overall size of the contiguous forest is approximately 19.6 hectares and does not meet this woodland size criterion. The target forest interior size criterion is eight hectares. There is no forest interior habitat on the site, but approximately 1.6 hectares is present in the maple forest to the north of the site, less than the target of eight hectares. No other functions of the woodlands, such as large tree structure, rare vegetation communities, proximity to other natural heritage features, and other ecological functions, uncommon characteristics, or economic and social functional values were observed for which the forest would be considered significant woodlands.

### Significant Wildlife Habitat

The potential for significant wildlife habitat is assessed using the guidance in OMNR (2010) and MNRF (2015). Rock piles may be used by snakes and other wildlife. No forest interior habitat is present on the site, but a small amount, less than two hectares is to the north of the site. The forest in this area may support nesting of species of special concern such as wood thrush and eastern wood-pewee. A few trees with potential wildlife cavities are present in the hedgerows and former hedgerows now part of forests. The density of cavity trees is less than the 10 per hectare threshold used by the Ministry for potential bat cavity habitat, but the cavities could be used by hibernating wildlife. No other flora, fauna or ecological conditions were identified in the background review or field surveys that would trigger a significant wildlife habitat designation with respect to the ELC communities present. For example, no wetlands are present for potential amphibian breeding, waterfowl stopover or staging areas, or colonial nesting bird breeding habitat. Rare vegetation communities, as noted in MNRF (2015), and rare or specialized habitats, including seeps or springs, were not observed. There was no evidence of deer yarding or other examples of seasonal concentration areas. No evidence of raptor wintering areas was noted and old growth forests are not present.

Any corridor functions associated with the site are limited by the Highway 7 corridor to the north and the associated urbanized portions of Carleton Place, as well as new residential developments to the east, agricultural lands to the south, and Highway 15 and rural estate and commercial developments to the west of the site.

### Summary

Potential significant natural heritage features on the site include potential significant wildlife habitat represented by potential use of rock piles by snakes and potential fish habitat within the Beckwith Drain, and to the north of the site, nesting avian species of special concern in forest interior habitat.

## ***Recommendations***

As shown on Figure 2 the development proposal has been modified to retain the northwest upland deciduous forest, including the mature sugar maples and potential wildlife cavity trees. The forest has a good diversity of tree ages in good condition and little disturbance in the understory.

### Tree Protection and Planting Measures

Other trees are to be protected wherever possible, though it is recognized grade raises between one and 1.5 metres on much of the site will make tree retention difficult in most areas. Once the detailed engineering and an associated grading plan are prepared, areas of tree retention can be finalized. In addition to the park in the northwest corner, potential tree retention areas include adjacent to the stormwater management facility in the northeast corner of the site where there is not a conflict with servicing or grading requirements, the north and west portions of the school lands in the north-central portion of the site, and along the west site edge, to the east of Highway 15.

There are no co-owned trees or trees adjacent to the site with critical root zones extending onto the site to the west of the site in the cleared Highway 15 right-of-way. Adjacent trees to the north of the site will be removed as part of the extension of Captain A. Roy Brown Boulevard. To protect trees to remain to the south of the west portion of the south property line and to the east of the south portion of the east property line, where adjacent trees are present, no excavations or other site disturbances that could impact the critical root zones of the adjacent trees should occur within three metres of the site boundary in these areas.

All trees to be retained are to be protected with sturdy temporary fencing at least 1.3 metres in height installed a minimum distance from the outer tree trunks of ten times the outer trunk diameters of the trees to be retained. 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, where possible, within four 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. Exhaust fumes from all equipment during construction will not be directed towards the canopy of trees to be retained.

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 trees critical root zone, the barrier should be kept in place until all site servicing and house construction has been completed.



Plantings of native trees and shrubs are recommended in the periphery of the stormwater management facility, the portions of the Beckwith Drain setback currently lacking tree cover, and where possible in the school lands and associated with the residential units. These native plantings will provide local aesthetic and wildlife habitat features and help offset over time the trees to be removed on the site. A Landscape Plan of native trees and shrubs will be prepared for the site as part of the detailed design. 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, and dogwood shrubs along with sugar maple, red maple, basswood, balsam fir, white cedar, red oak, and white spruce trees. Sourcing native species from local seed sources is strongly recommended to ensure adaptability and longevity. Where clay soils are present, species with high water demand such as willows, poplars, and Manitoba maple should not be considered for planting.

### Beckwith Drain

It is understood as part of the extension of Captain A. Roy Brown Boulevard, the Beckwith Drain will be realigned to the north to run along the south side of the road extension (see dashed blue line on Figure 1). In addition to retaining the sugar maple forest in the northwest portion of the site, by locating the park in this location, there will be a greater than 30 metre (a typical distance will be 45 metres) no disturbance setback between the realigned Drain and the closest residential development. In the northeast portion of the site there will be a minimum setback of 15 metres between the Drain and the closest structures, save for the stormwater management pond outlet. This setback is generally currently lacking in tree cover and should be enhanced with plantings of native trees of a variety of species, as described above. Given that the Drain will be realigned as a roadside ditch as part of the road extension, the 15 metre setback on the south side is considered appropriate.

### Wildlife

To avoid potential impacts on breeding birds, no woody vegetation removal should occur between May 1<sup>st</sup> and July 31<sup>st</sup> unless a survey completed by a qualified biologist within five days of the proposed removal identifies no breeding activity. This will also avoid tree removal during the summer bat maternity roosting period. The ideal time for tree removal with potential wildlife cavities is between August 15<sup>th</sup> and October 15<sup>th</sup> to protect both breeding birds, spring and early summer wildlife use, and overwintering wildlife in cavity trees. Depending on the year, April may also be a suitable time. If winter tree removal is anticipated, surveys should be undertaken ahead of time to determine no overwintering wildlife use in trees with suitable cavities.

If the on-site fields revert to hayfields, the fields should be surveyed for potential nesting habitat by bobolink and eastern meadowlark prior to site disturbances.

Where required, disturbances to stone piles are to occur outside of the winter and spring periods to protect wildlife, with the ideal time for removal in August and September. If disturbance must occur outside of this window, a biologist should be consulted to inspect the habitat for occupancy, and in cases where occupancy is uncertain, the stone piles are to be disassembled slowly (by hand where possible) to reduce potential impacts and allow wildlife time to relocate.

Silt fencing is to be properly keyed in around the site perimeter to keep wildlife out of the work areas. Once the fencing is properly installed, the work area should be searched for any snakes, turtles, or other sensitive wildlife, with such wildlife relocated to the lands to the north prior to site alterations. Construction staff are to be made aware of the characteristics of potential Species at Risk such as eastern meadowlark and bobolink. If any Species at Risk are observed, a biologist is to be called on-site and the Ministry of the Environment, Conservation, and Parks contacted. Work will cease until the individual(s) have left the site and/or the biologist has protected the species from harm or harassment and the Ministry has given permission for the work to continue.

All construction activities are to occur during daylight. To discourage wildlife from entering the work areas during construction, the site should be kept clear of food wastes and other garbage. Proper drainage should be provided to avoid accumulation of standing water, which could attract amphibians, birds, and other wildlife to the work areas.

For general sediment and erosion control the following mitigation measures are recommended:

1. The extent of exposed soils is to be kept to a minimum at all times. Re-vegetation of exposed, non-developed areas is to be achieved as soon as possible;
2. The objective with respect to erosion and sediment controls will be to ensure that the surface water runoff leaving the site is not degraded with respect to water quantity or quality. Erosion and sediment control will focus on best management practices such as grassed swales with a reduced slope and direction of roof and rear yard runoff to the vegetated rear of the lots;
3. Where groundwater must be removed from work areas, the groundwater will be pumped into a proper filter mechanism such as a sediment trap or filter bag prior to release to the environment;
4. Seepage barriers such as silt fencing, straw bale check dams and other sediment and erosion control measures will be installed as required to OPSD requirements in any temporary drainage ditches and around disturbed areas during construction and stockpiles of fine material. These control measures must be properly maintained to maximize their function during construction;
5. Silt fencing is required along all work areas. The fencing must be properly keyed in to filter runoff and maintained as required including repair of broken panels and removal of accumulated sediment;
6. Municipal by-laws and provincial regulations for noise will be followed and utilities will be located as required 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.

### ***Cumulative Impacts and Conclusion***

Natural heritage features, as identified in the Provincial Policy Statement, identified on or adjacent to the site include potential significant wildlife habitat associated with stone piles and potential fish habitat in the Beckwith Drain, and to the north of the site, potential use of the deciduous forest by avian species of special concern. Mitigation measures are presented above to assist in avoiding potential impacts on these features.

The removal of trees, including the upland deciduous and coniferous forests, will result in the loss of local wildlife habitat, and climate, nature appreciation, and aesthetic benefits associated with the habitat. Relocation of the park to the northwest portion of the site has retained the portion of the deciduous forest in better condition with a diversity of tree ages. Mitigation measures are presented above to reduce the impacts associated with the habitat removal and plantings of native trees and shrubs over time will assist a bit in replacing the lost features and functions. It is anticipated that the wildlife currently using the site will relocate to adjacent natural areas and other habitat outside of the designated residential areas, but there will be a loss of local flora and fauna features and functions habitat as this portion of the Town is developed. The Beckwith Drain will be located to the north of the site and protected with setbacks from site development. Provided the mitigation measures identified above are properly implemented, including proper timing of removals, the impact of loss of these local features will be minimized.

This EIS and TCR concludes that it is the professional opinion of the author that the construction and operation of a proposed residential will have an impact on the features and functions of the local flora and fauna, but there will be no negative impacts, as defined in the Provincial Policy Statement, for any significant natural heritage features that may be present provided the above important mitigation measures are properly implemented.

### ***References***

Colour Aerial Photography Sources: geoOttawa – 2002, 2005, 2011, 2014, and 2017;  
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Muncaster Environmental Planning Inc. and Bowfin Environmental Consulting. 2013. Existing Conditions - Natural Environment Features. Highway 7 South Conceptual Development Plan. Revised October 2<sup>nd</sup>, 2013. 77 pp & append.

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

Paterson Group. 2020. Geotechnical Investigation, Proposed Residential Development - Highway 7 at Highway 15, Carleton Place, Ottawa, Ontario. May 1, 2020. Report PG5212-1. 19 pp. & Append.

Please call if you have any questions on this revised Environmental Impact Study and Tree Conservation Report.

Yours Sincerely,  
**MUNCASTER ENVIRONMENTAL PLANNING INC.**

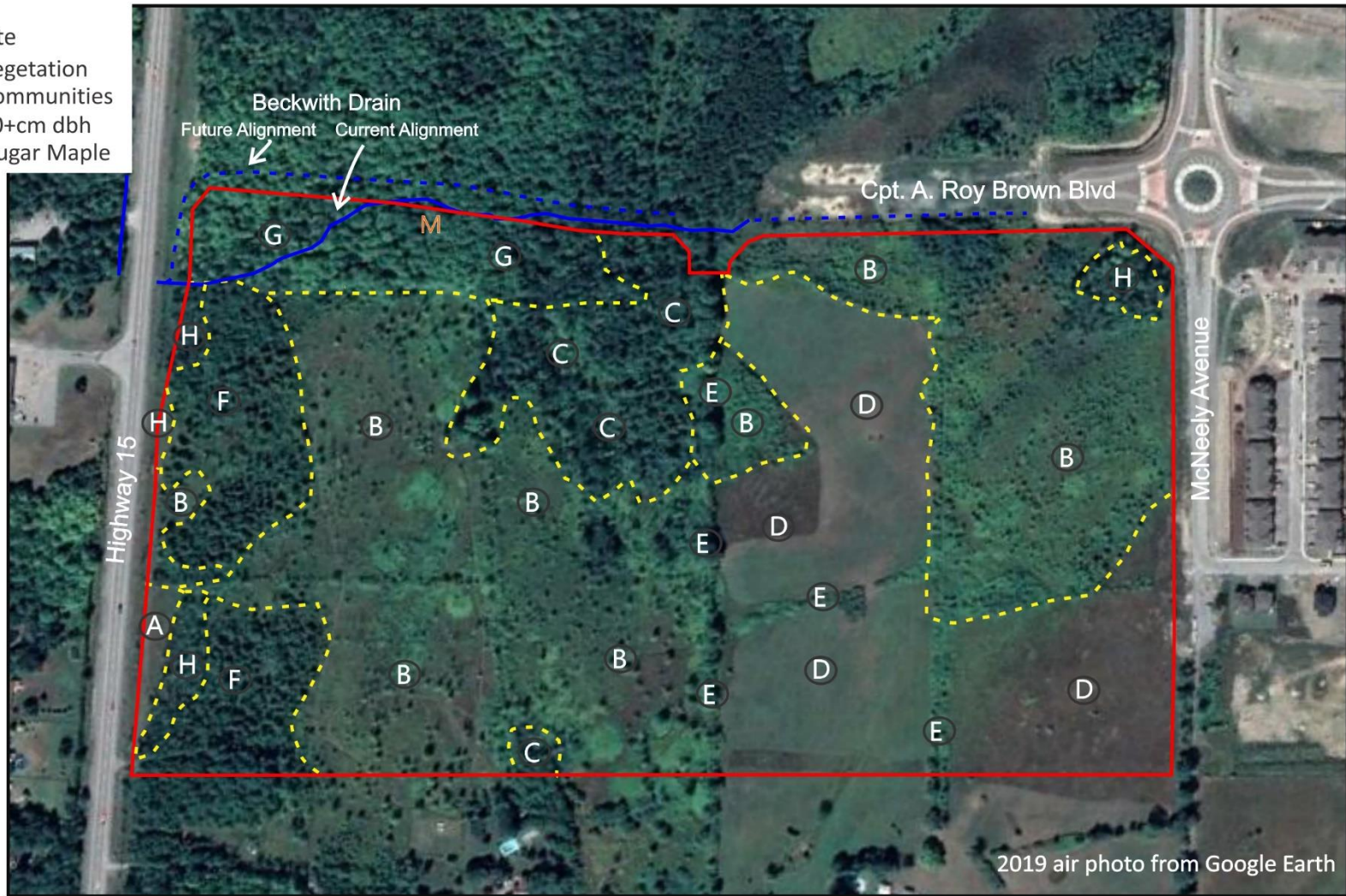


Bernie Muncaster, M.Sc.  
Principal

\RSSR Laing Lands EIS

**Legend**

- Site
- Vegetation Communities
- - - 90+cm dbh Sugar Maple
- M



**Vegetation Communities**

- |                       |  |  |
|-----------------------|--|--|
| (A) Cultural Meadow   | (D) Ploughed Field                       | (G) Upland Sugar Maple - Ironwood Deciduous Forest |
| (B) Cultural Thicket  | (E) Deciduous Hedgerow                   | (H) Upland Ash Deciduous Forest                    |
| (C) Cultural Woodland | (F) Upland White Cedar Coniferous Forest |  |

**Approx. Scale 1:4,300**



Prepared for: **Uniform Developments**

**NATURAL ENVIRONMENT FEATURES**

Prepared by:  Muncaster Environmental Planning Inc.

**McNeely Landing,  
Carleton Place**

**Figure 1**

**FILE: 20-23**

May 13, 2022

FIGURE 2 - DRAFT PLAN of SUBDIVISION

UNIT MIX BREAKDOWN			
LOT/BLOCK #'s	LOT SIZE	UNITS	%
32-72, 145-204	42' (12.8m)	101	23.43
1-31, 73-144	36' (11.04m)	103	23.90
205-209, 211-216	19.8' (6.0m) Town	171	39.68
210	High Density Unit	56	12.99
Total		431	100.0

