



Muncaster  
Environmental  
Planning Inc.

September 28, 2015

John, Martin, Adrianus and Michael van Gaal  
c/o 824-349 McLeod Street  
Ottawa, Ontario  
K2P 0S1

Dear Mr. Van Gaal:

**RE: 1039 Terry Fox Drive and 5331 Fernbank Road, Kanata**  
**Environmental Impact Statement**

This Environmental Impact Statement (EIS) assesses a proposed urban mixed-use residential development in the south portion of Kanata, City of Ottawa. The site is on the east side of Terry Fox Drive, extending north from Fernbank Road to the TransCanada Trail (Figure 1). Recent urban residential and commercial developments are to the west, south and east of the site, with a business park also to the east and the Glen Cairn urban portion of Kanata to the north. The municipal addresses are 1039 Terry Fox Drive and 5331 Fernbank Road. The site is described as Part of Lot 30, Concession 10, Geographic Township of Goulbourn, City of Ottawa

For the purposes of this report Terry Fox Drive is considered to be in a north-south orientation.

***Background and Project Description***

The Monahan Drain bisects the site from west to east in approximately the centre of the site. Cope Drive crosses the south portion of the site and a steel tower hydro line crosses the north portion of the site south of the TransCanada Trail. The site is dominated by agricultural activity, with pasture lands in the north half, north of the Monahan Drain and cultivated fields in the south half, between Fernbank Road and the Drain.

The site is within lands designated *Enterprise Area*, as are areas to the east and south on Schedule B of the City of Ottawa Official Plan. Lands to the west and north are designated *General Urban Area*. The site is zoned *Industrial (IP4)*. There are no remaining Urban Natural Areas in proximity to the site, with the closest Urban Natural Area identified by Muncaster and Brunton (2005) in 2005 (the Kanata South Business Park, UNA # 16) to the east of the site removed for urban development after 2005. There are no portions of the City's proposed Natural Heritage System, as shown on the Schedule L3 overlay of the Official Plan, in proximity to the site. There are no Areas of Natural and Scientific Interest or Provincially Significant Wetlands in this portion of Kanata, with Stony Swamp the closest representation of both features, approximately two kilometres to the northeast of the site.

The proposed land use for the block between Fernbank Road and Cope Drive is commercial, with the block between Cope Drive and the Monahan Drain residential and the north portion of the site between the Monahan Drain and the TransCanada Trail employment. Access to the site will be via new streets off Cope Drive and extensions of Michael Cowpland Drive and Westphalian Avenue. The urban development will be on full municipal services.

### ***Methodology***

This EIS was prepared in accordance with Section 4.7.8 of the City of Ottawa Official Plan (2010) following the EIS Guidelines and the Guidelines for City of Ottawa Tree Conservation Report, found at <http://ottawa.ca/en/development-application-review-process-0/environmental-impact-statement-guidelines> and [http://ottawa.ca/en/env\\_water/tlg/trees/preservation/guidelines/index.html](http://ottawa.ca/en/env_water/tlg/trees/preservation/guidelines/index.html), with guidance from the Natural Heritage Reference Manual (OMNR, 2010). This report includes the components of an Environmental Impact Statement as identified in Section 4.7.8.11 a) through i) of the City of Ottawa Official Plan (City of Ottawa, 2010).

The major objective of this EIS is to determine the features and functions of the on-site and adjacent natural environment conditions and to assess the anticipated impacts associated with the proposed urban residential/commercial/office development on these features and functions. To attain this objective, the concept plan was reviewed and mitigation measures developed as required based on field observations of the features and functions of the natural environment.

The following items were identified for particular attention in this EIS, recognizing that many of these issues are interrelated:

- what are the terrestrial habitat features of the site and adjacent lands and the associated sensitivities?;
- what are the aquatic habitat and other sensitivities associated with the Monahan Drain and what is a suitable setback?;
- is there any other aquatic habitat potential on the site proposed for development?;
- what are the recommended areas of tree retention and other mitigation measures to ensure no unacceptable impacts on any significant natural heritage features? and,
- does the site support any other natural heritage features, including Species at Risk, that should be considered in development of the site?

Colour aerial photography (1976 - 2014) was used to assess the natural environment features in the general vicinity of the site. Field reviews were completed on June 2<sup>nd</sup>, 9<sup>th</sup> and 24<sup>th</sup> and August 12<sup>th</sup>, 2015. Weather conditions during the surveys were good for observations with sunny or overcast skies, air temperatures between 17 and 21° C and a light breeze or calm winds.

The field surveys and this report were completed by Bernie Muncaster, who has a Master's of Science in Biology and over twenty-seven years of experience in completing natural environment assessments.

## ***Existing Conditions***

### **Soils and Topography**

The topography of the site is generally flat. The soil conditions generally consist of topsoil overlying silty sand overlying a deep silty clay deposit (Paterson, 2006 and 2006b). The thickness of the topsoil and silty sand layers varied between 0.1 and 0.4 and 1.8 and 3.7 metres, respectively. Geological mapping indicates that bedrock in this area mostly consists of interbedded limestone and dolomite of the Gull River formation with an extensive overburden drift thickness of 25 to 30 metres depth (Paterson, 2006). Preliminary permissible grade raises of less than one metre were recommended by Paterson (2006) in association with a 1.2 metre long-term groundwater lowering for the north half of the site, with a permissible grade raise of one metre in association with a 0.5 metre long-term groundwater lowering for the south half, south of the Monahan Drain (Paterson, 2006b).

The groundwater levels measured by Paterson (2006 and 2006b) were approximately 0.8 metres below ground surface in early May 11, 2006. No defined channels with aquatic habitat potential were observed on the site outside of the Monahan Drain corridor.

### **Monahan Drain**

The Monahan Drain, flowing from west to east in the middle of the site supports cool and warmwater forage fish communities (Muncaster, 2007). The benthic invertebrate data analysis by MMM (2005) identified the upper reaches of the Monahan Drain as fairly poor water quality based on the communities present. However, water temperature monitoring conducted by MMM (2005) on the Monahan Drain at Fernbank Road, just downstream of the site indicated that water temperatures remained within the coolwater temperature designation even when air temperatures exceeded 30°C for three consecutive days. A more diverse fish community was collected by MMM (2005) in the downstream reaches of the Monahan Drain, well downstream of the study area, including mottled sculpin (a species with an preferred water temperature of 17°C) near Richmond Road. Sampling of the Monahan Drain by Gore and Storrie (1992) in the vicinity of the current Terry Fox Drive identified only four fish species in the watercourse, central mudminnow, northern redbelly dace, fathead minnow and brook stickleback. Fish species netted by Muncaster (2007) in the Monahan Drain included banded killifish, creek chub, brook stickleback and northern redbelly dace. De-fishing on the Monahan Drain upstream of Terry Fox Drive in April, 2012 netted central mudminnow, blackchin shiner, blacknose shiner and brook stickleback.

The substrate in the Monahan Drain channel is a combination of fines including sand, clay and organics. Aquatic vegetation and algae provide some in-stream cover. Broad-leaved cattail, water plantain slender pondweed, lesser duckweed, frog spit algae and filamentous algae represent the in-stream vegetation. The aquatic vegetation is very thick later in the growing season (Photo 1). The riparian vegetation is limited to ground flora such as Canada goldenrod, black-eyed susan and reed canary grass. No canopy cover is provided among the hardened channels. The aquatic habitat of the Monahan Drain is limited by the intermittent flow with a dry summer channel, exposed silt and sand at areas of erosion, livestock access, a lack of stream

cover, and a lack of in-stream structure other than the aquatic vegetation (Muncaster, 2007). A large gabion basket has been removed in the Monahan Drain upstream (west) of Terry Fox Drive as part of the channel enhancements in this area. In addition, riparian vegetation will provide stream cover and additional in-stream structure has been added along a meandering low-flow channel upstream of Terry Fox Drive.



*Photo 1 – Dense aquatic vegetation in the Monahan Drain.  
View looking upstream, west toward Terry Fox Drive*

#### Terrestrial Features

The site is isolated from an environmental perspective due to recent urban residential and commercial developments on former agricultural land to the west, south and east of the site, with a business park also to the east and the Glen Cairn urban portion of Kanata to the north. The site is dominated by cultivated lands in the south portion and pasture lands in the north, including cultural habitats and a maple swamp (Figure 1). Cattle were using the pasture lands during the summer 2015 surveys.

#### Cultural Meadow

**1039 TERRY FOX DRIVE and 5331 FERNBANK ROAD**  
**ENVIRONMENTAL IMPACT STATEMENT**

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Brome grass, reed canary grass, meadow grass, blue grass, bird's-foot trefoil, bull thistle, Canada thistle, fragrant bedstraw, ox-eyed daisy, narrow-leaved goldenrod, Canada goldenrod, New England aster, tall buttercup, purple loosestrife, wool grass, common milkweed, common dandelion, daisy fleabane, tufted vetch, black medic, white clover, red clover, common plantain, common mullein, Canada anemone and wild carrot are the common ground flora in the meadow habitats (Photos 2 and 3). Slender willow, common buckthorn and red-osier dogwood shrubs and regenerating poplar and crack willow stems up to 15cm diameter at breast height (dbh) are scattered in the meadow habitats.



*Photo 2 – Cultural meadow habitat in the northwest portion of the site.  
View looking north*





*Photo 3 – Cultural meadow habitat in the east portion of the site.  
View looking north to the hydro corridor*

#### Cultural Thicket

Woody vegetation in the thicket habitats included slender willow, Bebb' willow, pussy willow, Russian olive, narrow-leaved meadowsweet, tartarian honeysuckle and red raspberry (Photo 4), along with regenerating trembling aspen, grey birch, white poplar and eastern cottonwood stems up to 24cm dbh. Ground flora in the cultural thickets included timothy, brome grass, narrow-leaved goldenrod, Canada goldenrod, tufted vetch, purple loosestrife, common dandelion, black-eyed susan, calico aster, red clover, white clover, common yarrow, bird's-foot trefoil, heal-all, curled dock, bull thistle, chicory, common plantain, common strawberry and wild parsnip.



*Photo 4 – Typical cultural thicket north of the Monahan Drain*

#### Cultural Woodland

This community, represented in the central and southeast portions of the site north of the Monahan Drain, is dominated by crack willow, trembling aspen, balsam poplar and large-leaved aspen up to 25cm dbh (Photo 5). Red-osier dogwood, Bebb's willow and slender willow shrubs are common along with regenerating ash stems. Ground flora included meadow grass, reed canary grass, orchard grass, timothy, wild parsnip, Canada thistle, bull thistle, tall buttercup, boneset, hard-stemmed bulrush, common burdock, purple loosestrife, common milkweed, calico aster, tufted vetch, black-eyed susan and common dandelion.

Two small ponded areas, approximately 120 and 160 m<sup>2</sup> metres, adjacent to the central cultural woodland appeared to be dug for cattle (Photo 6). The ponds contained some standing water in June but were dry in August. Broad-leaved cattails were thick in many portions of the ponds, with purple loosestrife well represented. Crack willows were common around the pond perimeters. No amphibian activity was observed in association with the ponds.

Trees along the east edge of the site south of the Monahan Drain include a mature weeping willow and smaller trembling aspen and Manitoba maple.





*Photo 5 – Cultural woodland dominated by poplar north of the Monahan Drain*



*Photo 6 – Small dry dug cattle pond adjacent to a central cultural woodland north of the Monahan Drain*



### Maple Deciduous Swamp

This wetland in the northeast corner of the site is between the hydro corridor and the TransCanada Trail (Photo 7). Some mature red maples are up to 60cm dbh. Less mature representation of sugar maple, white elm and green ash is present. The maples appear to be in generally good condition with several of the white elm and ash appearing dead or in severe decline. Stumps suggest historical removal of some of the trees for firewood. Speckled alder, glossy buckthorn, black current, red raspberry and gray dogwood shrubs are in the understory. The distribution of non-native/invasive flora did not appear to be extensive. Spotted jewelweed dominated the ground flora in many areas, with sensitive fern, boneset, joe-pye-weed, false nettle, Canada thistle, stinging nettle, reed canary grass, fowl manna grass, purple loosestrife, bugleweed, tall meadow-rue, tall buttercup, common willow-herb, enchanter's nightshade, yellow avens, lady's thumb, common burdock, wood sorrel, thicket creeper, wild grape, calico aster, virgin's bower, Bebb's sedge, bladder sedge and ostrich fern also present.

Standing water was common in the central portion of the maple swamp (Photo 9). Lesser duckweed and water plantain were noted in the standing water. There appears to be no outlet to the swamp as lands along the TransCanada Trail to the north and the hydro corridor to the south are raised relative to the swamp (Photo 8). Field observations and the engineering and geotechnical work provide no indication that this is an area of significant groundwater interaction. The ponding of surface water in the wetland is likely due to poor drainage. While it is true that there are no watercourses entering the swamp area, it is also true that there are no watercourses leaving the swamp area. The subsurface conditions consist of a layer of silty sand overlying a massive silty clay deposit. As such there is negligible downward movement of surface water and the ponded water appears to remain on the surface and within the sand layer until it evaporates.

The following table summarize the characteristics of the maple deciduous swamp. The canopy cover is between 60 and 95 percent, with less canopy cover in the central and west portions.

Tree Species Ash Deciduous Forest	dbh range	Distribution	Variability, Condition and other Comments
Red maple	14 – 60 cm	55 %	Appear to be in generally good condition
White elm	7 – 20 cm	15 %	Some dead stems
Sugar maple	18 – 48 cm	10 %	
Green ash	4 – 28 cm	20 %	Many with decreased leaf-out. Greater ash representation in the central and north portions. Regenerating stems and dead stems present



*Photo 7 – Maple deciduous swamp in the northeast portion of the site*



*Photo 8 – Berm along the south side of the TransCanada Trail along the north edge of the deciduous swamp*





*Photo 9 – Standing water in the maple deciduous swamp south of the TransCanada Trail*

### Wildlife

Wildlife observations on and adjacent to the site included mallard, Canada goose, ring-billed gull, killdeer, European starling, American crow, common yellowthroat, yellow warbler, American robin, red-winged blackbird, common grackle, eastern kingbird (including adults with food), alder flycatcher, song sparrow (including adults with food), savannah sparrow (including adults with food and immatures), cedar waxwing, black-capped chickadee, American goldfinch, brown thrasher, grey catbird and grey squirrel, along with white-tailed deer tracks and historical beaver cuttings. A double-crested cormorant was observed flying overhead.

### ***Species at Risk***

No butternuts or other Species at Risk were observed during the field surveys. Shaun St. Pierre, a certified butternut health assessor, completed a detailed search of the site and adjacent lands on August 5<sup>th</sup>, 2015 and found no butternuts on or adjacent to the site. The Ontario Ministry of the Natural Resources' Make a Map: Natural Heritage Areas website was reviewed on June 5<sup>th</sup>, 2015.

([www.giscoeapp.lrc.gov.on.ca/web/MNR/NHLUPS/NaturalHeritage/Viewer/Viewer.html](http://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 areas (18VR31-04, -13, and -14). No Species at Risk were identified for these three squares, with one species of interest - the Provincially rare ram's-head lady's-slipper. The ram's-head lady's-slipper orchid is found in mature coniferous forests or



coniferous fens and swamps, habitat not on or adjacent to the site. The breeding birds listed in the Ontario Breeding Bird Atlas for the 10 km square 18VR31 identified barn swallow, bank swallow, eastern meadowlark and bobolink as Species at Risk in the overall 10 km square including the study area. Bobolink and eastern meadowlark require larger areas of grasslands, including hayfields while barn swallows utilize barns and other structures with open rafters for nesting. While the on-site cultural meadow habitats often have a relatively large amount of woody vegetation, breeding bird surveys were conducted from three point counts identified on Map 1 on the mornings of June 2<sup>nd</sup>, June 9<sup>th</sup> and June 24<sup>th</sup>, 2015 during suitable weather conditions (light breeze or calm winds, and sunny or cloudy and air temperatures between 13 and 19° C). No bobolink, eastern meadowlark or other Species at Risk were observed during the targeted surveys or a field survey on August 12<sup>th</sup>, 2015.

The potential Species at Risk reported for the overall City of Ottawa historically and in August 5<sup>th</sup>, 2015 correspondence from the Ministry of Natural Resources and Forestry (Appendix A) and their habitat requirements were also reviewed. The potential species include butternut, American ginseng, eastern prairie fringed-orchid, wood turtle, spiny softshell, Blanding's turtle, musk turtle, Henslow's sparrow, loggerhead shrike, eastern meadowlark, barn swallow, bank swallow, bobolink, eastern whip-poor-will, bald eagle, golden eagle, least bittern, little brown myotis, northern long-eared bat, eastern small-footed myotis, olive hickorynut, eastern cougar, common gray fox, lake sturgeon, cerulean warbler and American eel.

The habitat requirements of these species along with those listed as special concern were reviewed. The wetland habitat on the site is isolated and there are no reports of Blanding's turtle observations within two kilometres of the site. No turtles were observed on or adjacent to the site during the 2015 field surveys. The MNR correspondence did not identify Blanding's turtle as a potential Species at Risk for the site. No cavity trees or structures were observed on the site that may be used by barn swallow, bank swallow, bats or chimney swift.

In summary the only potential Species at Risk anticipated to be on or adjacent to the site is butternut, an endangered species but present in many areas of Ottawa. As mentioned above no butternuts were observed on or adjacent to the site during a targeted August 5<sup>th</sup>, 2015 survey or the other field surveys.

### ***Impact Analysis and Recommendations***

The site is isolated from natural areas by existing and increasing urban development. Outside of the intermittent fish habitat of the Monahan Drain there are no significant natural heritage features, as defined in the 2014 Provincial Policy Statement on or adjacent to the site. It is recommended that a 40 metre open space width be kept for the Monahan Drain corridor, which is similar to the corridor width upstream and downstream of the site. It is anticipated that the channel will be retained in its existing alignment and there is no need for a realignment of the channel. There are no on-site tributaries with defined channels and aquatic habitat potential feeding into the Monahan Drain. The maintenance access for the Municipal Drain would probably be located on the north side, adjacent to the non-residential land use.

The northeast forest is too small to provide interior habitat or habitat for area sensitive wildlife species. No portions of the forest are wider than approximately 125 metres. However the trees do provide local wildlife habitat, as do the cultural meadows, thickets and woodlands found on the balance of the site.

The conceptual grading and servicing plans developed by NOVATECH (2015) shows grade raises on the site and thus tree retention is not likely feasible. Subject to the detailed grading design, best efforts will be made to retain the trees along the northeast edge of the site, south of the TransCanada Trail.

Plantings of native vegetation on a lot-by-lot basis will assist in providing local habitat to offset the trees to be removed. 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, bur oak, red oak and white spruce trees. In terms of planting sensitivities, tree and shrub species that have a high water demand are generally not recommended due to the underlying silty clay soils. These species include willows, poplars, Manitoba maple and elm. Sourcing native species from local seed sources is strongly recommended to ensure adaptability and longevity.

The site lies directly upstream of the Monahan Drain Stormwater Management Facility which is a series of stormwater management detention cells situated upstream of Eagleson Road (see Appendix A of Novatech's Servicing and Stormwater Management Brief (2015) for more information). The Monahan Drain Stormwater Management Facility has been designed to provide quantity control of stormwater for the site. Quality control stormwater management will be achieved by a combination of Vortechnic Units and best management practices (BMP's) such as directing downspouts towards grass swales and installation of perforated pipes in rear yards. Major overland drainage in excess of the minor system capture rate will be directed overland towards the Monahan Drain along street right-of-ways and through open spaces.

As the site is isolated from a natural environment perspective with no linkage functions, the removal of the on-site woody vegetation is not anticipated to have a detectable impact on the ecological features and functions of the surrounding landscape. With mitigation measures such as removal of trees and shrubs outside of the breeding bird period it is anticipated that the attributes of the existing on-site local habitat to be removed will relocate to other less disturbed areas in the overall regional landscape.

The follow is a summary of the recommended mitigation measures:

1. To protect breeding birds, no tree or shrub removal should occur between April 15<sup>th</sup> and August 15<sup>th</sup>, unless a breeding bird survey conducted within five days of the woody vegetation removal identifies no active nests in the trees or shrubs;
2. Any trees and shrubs to be retained are to be protected with sturdy orange construction fencing at least 1.2 metres in height installed from the tree trunk a minimum distance of

ten times the retained tree diameter. 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 to occur within five 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 the retained trees to the south.

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;

3. Plantings of native vegetation as part of the urban residential subdivision on a lot-by-lot basis are recommended to provide natural environment and aesthetic features. Potential native species to plant include nannyberry, elderberry and dogwood shrubs along with sugar maple, red maple, basswood, balsam fir, white cedar, bur oak, red oak and white spruce trees. 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;
5. 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;
6. Where groundwater must be removed, the groundwater will be pumped into a proper filter mechanism such as a sediment trap or filter bag prior to release to the environment;
7. 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. An Erosion and Sediment Control Plan will be prepared during the detailed engineering analysis;
8. 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,



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.

### ***Schedule of Proposed Works***

It is proposed to remove the on-site woody vegetation not to be retained in 2016, outside of the breeding bird season. 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.

### ***Cumulative Effects***

The Canadian Environmental Assessment Agency (CEAA) defines cumulative effects as...*“the effects on the environment caused by an action in combination with other past, present, and future human actions...”* They occur when two or more project-related environmental effects, or two or more independent projects, combine to produce an augmented effect. These cumulative effects may be positive or negative.

There are no significant natural heritage features on or adjacent to the site outside of the Monahan Drain and the local landscape is dominated by urban residential development. Stormwater management will be provided to treat surface runoff resulting from the increase in impervious surfaces associated with the residential development and ensure no indirect impacts on the Monahan Drain corridor, the only natural environment feature of note in the area. No degradation of surface water leaving the site is anticipated post development with proper stormwater management. With the implementation of other mitigation measures described in this report in conjunction with the above assessment it is anticipated that the construction and operation of the urban residential subdivision will not increase the potential for negative cumulative effects in the general landscape.

### ***Conclusion***

The site is isolated from natural areas by existing and increasing urban development. There are no significant natural heritage features, as defined in the 2014 Provincial Policy Statement on or adjacent to the site outside of the Monahan Drain. No Species at Risk, high quality specimen trees, valued woodlands, significant wetlands, rare communities, slopes or valleys were observed on or adjacent to the site.

Engineering inputs indicate that servicing requirements for the site will likely prevent retention of the existing trees and other vegetation. Measures should be taken where feasible to retain the trees such as along the northeast edge of the site. Plantings of native species with local seed sources will assist over time in replacing the vegetation to be removed.

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

## **References**

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Paterson Group Inc. 2006b. Preliminary Geotechnical Investigation. Proposed Residential Development. 20 Acre Property. Terry Fox Drive at Fernbank Road. Ottawa, Ontario. July 25<sup>th</sup>, 2006. Report PG0809-1. 23 pp & Append.

Please call if you have any questions on this Environmental Impact Statement.

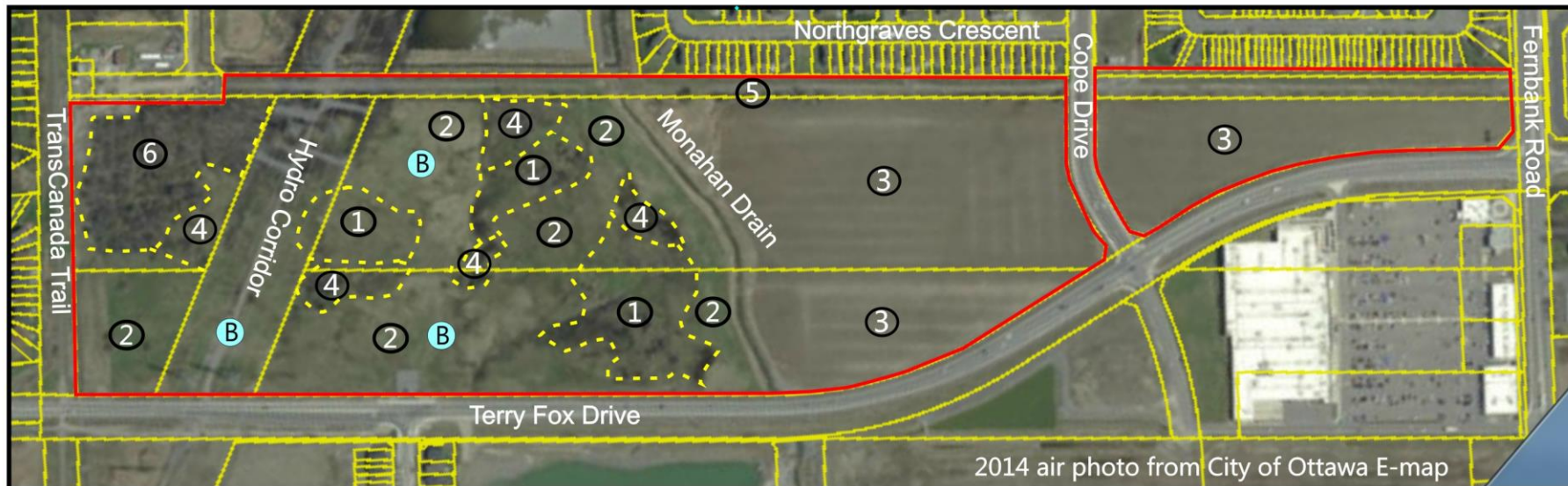
Yours Sincerely,

**MUNCASTER ENVIRONMENTAL PLANNING INC.**



Bernie Muncaster, M.Sc.  
Principal

\\vangaaleis



## Legend



Site

Vegetation communities

Bobolink Point Count

## Vegetation Communities

①

Cultural thicket

②

Cultural meadow

③

Cultivated field

④

Cultural woodland

⑤

Deciduous hedgerow

⑥

Red maple deciduous mineral swamp



Approx. Scale 1:6,000



**Figure 1**

**FILE: 14-28**

August 12, 2015

Prepared for: **JOHN and MARTY VAN GAAL**

Prepared by:



Muncaster  
Environmental  
Planning Inc.

**1039 TERRY FOX DRIVE & 5331 FERNBANK ROAD  
NATURAL ENVIRONMENT FEATURES**

**Kanata, City of Ottawa**



**APPENDIX A**

**MINISTRY of NATURAL RESOURCES and FORESTRY**

**CORRESPONDENCE**

**Ministry of Natural  
Resources and Forestry**

Kemptville District

10 Campus Drive  
Postal Box 2002  
Kemptville ON K0G 1T0  
Tel.: 613 258-8204  
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**Ministère des Richesses  
naturelles et des Forêts**

District de Kemptville

10, promenade Campus  
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Téléc.: 613 258-3920



Wed. Aug 5, 2015

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: Proposed Residential Development at Terry Fox Dr and Fernbank Rd.**  
**Site Address: 1039 Terry Fox Dr., and 5331 Fernbank Rd.**  
**Our File No. 2015\_GOU-3131**

**Natural Heritage Values**

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

The MNRF works closely with partner agencies and local municipalities in order to establish concurrent approval process and to achieve streamlined and efficient service delivery. The MNRF strongly encourages all proponents to contact partner agencies (e.g. MOECC, Conservation Authority, etc.) and appropriate municipalities early on in the planning process. This provides the proponent with early knowledge regarding agency requirements and approval timelines.

Natural heritage features and values contribute to the province's rich biodiversity and provide habitat for a variety of species. The following Natural Heritage values were identified:

- Municipal Drain, Monahan Branch B Drain

Municipal Official Plans contain additional 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.

**Ministry of Natural  
Resources and Forestry**

**Kemptville District**

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Where natural values and natural hazards exist (e.g., floodplains), there may be additional approvals and permitting required from the local Conservation Authority. The MNRF strongly recommends contacting the local Conservation Authority for further information and approvals. Please see the MNRF Kemptville Information Guide (2012) for contact information pertaining to Conservation Authorities located within the Kemptville District area.

For additional information and online mapping tools, please see the Natural Heritage Information Centre (NHIC), where additional data and files can be downloaded in both list and digital format. In addition sensitive species information can be requested and accessed through the NHIC at [NHICrequests@ontario.ca](mailto:NHICrequests@ontario.ca).

In Addition, the following Fish species were identified: banded killifish, bluntnose minnow, brook stickleback, central mudminnow, common shiner, creek chub, fathead minnow, golden shiner, johnny darter/tessellated darter, northern redbelly dace, pearl dace, pumpkinseed, rock bass, tessellated darter, walleye, white sucker.

#### **Water**

Where the site is adjacent to or contains a watercourses or waterbodies, additional considerations apply. If any in-water works are to occur, there are timing restriction periods for which work in water can take place (see below). Appropriate measures should be taken to minimize and mitigate impact on water quality and fish habitat, including:

- including the installation of sediment and erosion control measures;
- avoiding removal alteration or covering of substrates used for fish spawning, feeding, over-wintering or nursery areas; and
- debris control measures should be put in place to manage falling debris (e.g. spalling).

A work permit from the MNRF may be required pending further details regarding the proposed works. No encroachment on the bed or banks of the waterbody (e.g. abutments, embankments, etc.) is permitted until MNRF approval and clearance has been issued. In order for MNRF staff to determine when a work permit is required, additional information can include:

- Detailed drawings (existing and proposed)
- Location mapping
- Registered Plan survey
- Site photographs
- Public Lands Act Forms - application forms, ownership form and landowner notification form.



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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.MNRF.gov.ca/264110.pdf>

**Timing restriction periods in MNRF Kemptville District\*:**

- Warmwater → March 15 – June 30  
→ March 15 – July 15 for St. Lawrence River & Ottawa River  
Coldwater → October 1 – May 31  
Mixed lakes → October 1 – June 30 (Big Rideau & Charleston)

\* Please note: Additional timing restrictions may apply as it relates to Endangered and Threatened Species, including works in both water and wetland areas.

	FISH SPECIES	TIMING WINDOW
Spring:	Walleye	March 15 to May 31
	Northern Pike	March 15 to May 31
	Lake Sturgeon	May 1 to June 30
	Muskellunge	March 15 to May 31
	Largemouth/Smallmouth Bass	May 1 to July 15
	Rainbow Trout	March 15 to June 15
	Other/Unknown Spring Spawning Species	March 15 to July 15
Fall:	Lake Trout	October 1 to May 31
	Brook Trout	October 1 to May 31
	Pacific Salmon	September 15 to May 31
	Lake Whitefish	October 15 to May 31
	Lake Herring	October 15 to May 31
	Other/Unknown Fall Spawning Species	October 1 to May 31

Additional approvals and permits may be required for the proposed works as it relates to the Fisheries Act. Please contact your local Conservation Authority and the Department of Fisheries and Oceans to determine requirements and next steps. Where the Fisheries Act is triggered and habitat compensation, mitigation measures or best management practices are being considered; as the MNRF is charged with the management of Provincial fish populations, the MNRF requests ongoing involvement in such discussions in order to ensure population conservation. Furthermore, local Conservation Authorities may also have additional approvals for works in and adjacent to water and wetland features. Finally, Transport Canada's Navigable Waters Protection Division

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may require review and approval of the proposed project. Please contact these local agencies directly for more information.

As per the Natural Heritage Reference Manual (Section 13; OMNRF 2010) the MNRF strongly recommends that an Ecological Site Assessment be carried out to more thoroughly determine the presence of natural heritage features, and Species at Risk and their habitat located on site. The MNRF can provide survey methodology for particular species at risk and their habitats. In addition, the local planning authority may have more details pertaining to the requirements of the assessment process, which will allow for the municipality to make planning decisions which are consistent with the Provincial Policy Statement (2005).

**Species at Risk**

With the new Endangered Species Act (ESA, 2007) in effect, it is important to understand which species and habitats exist in the area and the implications of the legislation. A review of the Natural Heritage Information Centre (NHIC) and internal records and aerial photograph interpretation 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)
- Bobolink (THR)
- Butternut (END)
- 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 of possible important habitat (e.g. nesting sites). Please note that as of June 30, 2013 general habitat protection applies to all Threatened and Endangered species. The habitat of these listed species is protected from damage and destruction and certain activities may require authorization(s) under the ESA. Please keep this date in mind when planning any species and habitat surveys

Species receiving General Habitat protection:

- Barn Swallow (THR)
- Bobolink (THR)
- Butternut (END)
- Eastern Meadowlark (THR)

If the proposed activity is known to have an impact on the species mentioned above or any other SAR, an authorization under the Endangered Species Act, 2007 (ESA) may be required. It is

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recommended that MNRF Kemptville be contacted prior to any activities being carried out to discuss potential survey and mitigation measures to avoid contravention of the ESA.

Habitat has been identified within the project area that appears suitable for one or more species listed by SARO as Special Concern (SC). In Addition, 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. Species of Special Concern for consideration:

- Milksnake (SC)
- Monarch (SC)
- 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 immediately 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 on documented occurrences only and does not 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. i.e.: Species at Risk (SAR) or their habitat could still be present at the location or in the immediate area. It is the responsibility of the proponent to ensure that species at risk are not killed, harmed, or harassed; or 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. If an activity is proposed that will contravene the ESA (such as Section 9 or 10), the proponent must contact the MNRF to discuss the potential for a permit (Section 17). For specific questions regarding the Endangered Species Act (2007) or SAR, please contact a district Species at Risk Biologist at [sar.kemptville@ontario.ca](mailto:sar.kemptville@ontario.ca). For more information regarding the ESA (2007), please see attached ESA Information Sheet.

As of July 1, 2013, the approvals processes for a number of activities that have the potential to impact SAR or their habitat were changed in an effort to streamline approvals processes while continuing to protect and sustainably manage Ontario's natural resources. For those activities that require registration with the Ministry, businesses and individuals will be able to do so through a

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new online system. The online system will also include information to help guide individuals and businesses through the new processes. For further information on which activities are authorized through this new online registration process and how to apply, please refer to the following website: [http://www.MNRF.gov.on.ca/en/About/2ColumnSubPage/STDPROD\\_104342.html](http://www.MNRF.gov.on.ca/en/About/2ColumnSubPage/STDPROD_104342.html). General inquiries may be directed towards Kemptville District MNRF, while questions and comments involving the new online forms can be directed to the Registry Approvals Service Centre (RASC) at 1-855-613-4256 or [MNRF.rasc@ontario.ca](mailto:MNRF.rasc@ontario.ca).

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.
- Additional occurrences of species are discovered.
- Habitat protection comes into force for one of the above-mentioned species through the creation of a habitat regulation (see general habitat protection above).

**This letter is valid until: Thu. Aug 4, 2016**

MNRF is streamlining and automating its approvals processes for natural resource-related activities. Some activities that may otherwise contravene the ESA may be eligible to proceed without a permit from MNRF provided that regulatory conditions are met for the ongoing protection of species at risk and their habitats. There are regulatory provisions for projects that have attained a specified level of approval prior to, or shortly after, the specified species or its habitat became protected under the ESA. Their requirements include registering the activity with the Ministry of Natural Resources and Forestry, taking steps to immediately minimize adverse effects on species and habitat, and developing a mitigation plan. Anyone intending to use this regulatory provision is strongly advised to review Ontario Regulation 242/08 under the Endangered Species Act, 2007 for the full legal requirements.

For more information please check out the following link <http://www.ontario.ca/environment-and-energy/development-and-infrastructure-projects-and-endangered-or-threatened-species>

The MNRF would like to advise, by way of this letter, 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,



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Encl.\  
-ESA Infosheet  
-NHIC/LIO Infosheet