Muncaster Environmental Planning Inc.

September 16, 2024

Tyler Ferguson
Land Development Manager
1470424 Ontario Inc.
Cardel Group of Companies
301 Moodie Drive, Suite 100
Ottawa, ON
K2H 9C4

Dear Mr Ferguson:

RE: Creekside Phase 2 Residential Development, Richmond
Environmental Impact Study and Tree Conservation Report- Updated

I have completed an Environmental Impact Study (EIS) and Tree Conservation Report (TCR) for a village residential development in Richmond, to the north of Perth Street and west of Eagleson Road in Lots 26 and 27 of Concession 4, Nepean Geographic Township of the City of Ottawa (Map 2). The municipal address for the approximately 33.7 hectare site is 2780 Eagleson Road. The site is dominated by cultivated agricultural lands (fallow in 2024), with the Flowing Creek Municipal Drain to the west of the site, flowing south to Perth Street and then the Jock River approximately 75 metres south of Perth Street.

For the purposes of this report Eagleson Road is considered in a north-south orientation. In this report the 'site' refers to the proposed residential development area and associated park, stormwater management, communal well, pump station, and other uses within the area outlined in red on Maps 1 and 2. This reported has been updated to reflect the 2024 conditions and City of Ottawa staff comments on a draft EIS and TCR.

Site Context and Proposed Development

The site is within the Village boundaries for Richmond, as designated on Schedule A of the former City of Ottawa Official Plan (Schedule B9 of the current Official Plan), and is zoned Development Reserve (DR1). No Provincially Significant Wetlands, Areas of Natural and Scientific Interest, or Significant Woodlands are in proximity to the site. To the west of the site, unstable slopes are shown along Flowing Creek Municipal Drain on Schedule K of the former Official Plan (Schedule C15 of the current Official Plan). Most of the west and central portions of the site currently show as floodplain on Schedule K (see Map 1). No terrestrial portions of the City's Natural Heritage System, as mapped on the Schedule L2 Overlay of the Official Plan (Schedule C11-B of the current Official Plan), are on or adjacent to the site, with a Natural Environment Area including the Jock River and the Richmond Lagoons beginning approximately 230 metres south of the site.

There are no Natural Areas, as identified in the Natural Environment Evaluation System (Brunton, 1997) in proximity to the site, with the closest mapped Natural Area the moderate-rated Richmond Natural Area approximately 1.2 kilometres to the east of the site on the south side of the Jock River. This Natural Area has been removed from the landscape.

The site is not shown as natural vegetation on Figure 3-7-1 of MMM (2005), with small areas of *Scrub, thicket, hedgerow* along the Flowing Creek Municipal Drain corridor to the west of the site. This vegetation is identified as scrub thicket riparian cover on Figure 3-7-9 of MMM (2005) and the riparian cover does not extend onto the site. No forest cover, wetlands, rare vegetation/landform types, Areas of Natural and Scientific Interest, NESS Areas, linkages, or other terrestrial features are identified on or adjacent to the site on Figures 3-7-2, -4, -6, -7, -8, -10, -11, and -12 of MMM (2005).

A total of 464 residential units are proposed for site, composed of 139 townhomes, 70 semi-detached units, and 255 detached single units. Access for the site will be via a new road with two access points west from Eagleson Road and internal crescents. A 0.8 hectare park is proposed in the central portion of the site, adjacent to a 1.3 hectare block for stormwater management (Map 2). Other services on the site include a communal well and a pump station. Cut and fill works are proposed to the adjust the current floodplain, as shown on Map 2. This report does not include an assessment of the cut and fill activity as the review of the cut and fill was completed separately and the cut and fill works will occur prior to beginning construction of the proposed subdivision. Two servicing connections will be made to the west, towards the Flowing Creek Municipal Drain corridor (Map 2). The stormwater management connection will occur in the south 'service connect' block and is described in the next paragraph. Twin sanitary forcemains will extend in a westerly direction from the north 'service connect' block to the existing sanitary sewer system on Kirkham Crescent in the Creekside Phase 1 Subdivision. The sanitary forcemains will be installed underground and will cross under the Flowing Creek Municipal Drain. Crossing details for Flowing Creek will be advanced as part of detailed design. The proposed development does not include a pedestrian crossing of the Municipal Drain.

Stormwater from the Creekside Phase 2 Subdivision will be captured by a proposed storm sewer system and conveyed to a proposed stormwater management (SWM) facility described above and shown on Map 2. The SWM facility will be designed as a wet pond and will provide stormwater detention and enhanced level quality control (80% total suspended solids removal) of stormwater runoff prior to discharging off-site. The SWM facility will outlet via an underground storm sewer through the south 'service connect' block before discharging to the surface at the boundary of the development. A new ditch system will convey the stormwater in a westerly direction towards the Flowing Creek Municipal Drain. No in-water work in the Drain is anticipated at the west edge of the conveyance ditch.

Methodology

An Environmental Impact Study is required for the proposed residential development to address potential Species at Risk utilization and other natural heritage features that may be present, including the Flowing Creek Municipal Drain corridor to the west. The EIS component will determine if the proposed development will have a negative impact, as defined in the Provincial

Policy Statement, on any significant natural features. This EIS and TCR was prepared in accordance the City's EIS and Tree Conservation Report guidelines, 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-six years of experience in completing natural environment assessments. Michelle Muncaster assisted with the 2024 field survey and other components of this report. The report will provide the methodology to mitigate as required negative impacts on significant features and functions. Potential Species at Risk in the general area were identified from Ministry of Natural Resources and Forestry databases, the Ontario Breeding Bird, Amphibian and Reptile Atlases, and Species at Risk reported for the overall City of Ottawa.

The natural environment features of the site and adjacent lands were initially reviewed between 10:10 and 12:30 on April 28th, 2020, under sunny skies, with a light breeze and an air temperature of 10° C. Additional field reviews were completed on August 17th, 2020 from 12:30 to 14:50 under sunny skies, with a light breeze, and an air temperature of 25° C and on September 3rd, 2024 from 08:45 to 10:50, also under sunny skies, light air, and an air temperature of 20° C.

Existing Conditions

The topography of the site is generally level, with a very gentle slope to the south. The soils on the site are mapped as poorly drained silty clay (Schut and Wilson, 1987). The site is dominated by active cultivated fields, planted in soybeans and corn in 2019 (Photo 1). The fields were fallow in 2024 (Photo 2) and are shown as cultural meadow on Map 1. No swales with aquatic habitat potential were observed on the site.

Ground flora along the edges of the agricultural fields, in the fallow fields, and among the deciduous trees described below include common burdock, wild carrot, lamb's quarter, Canada thistle, reed canary grass, orchard grass, common brome grass, barnyard grass, June meadow grass, daisy fleabane, purple loosestrife, common burdock, common ragweed, wild parsnip, false sunflower, field sow-thistle, common mugwort, common milkweed, Canada goldenrod, common dandelion, tufted vetch, evening primrose, wild grape, and wild cucumber, along with red raspberry, staghorn sumac, and slender willow shrubs and regenerating Manitoba maple. ash, elm, and bur oak stems.

Scattered deciduous trees are along the field edges, on and adjacent to the site. The description below is divided into three sections: on-site trees, adjacent trees, and City-owned adjacent trees immediately to the east of the site in the west portion of the expanded Eagleson Road allowance.

On-site Trees

Scattered deciduous trees were in a north-south orientation between the two main cultivated fields. The largest of these trees was a mature white ash up to 58cm diameter at breast height (dbh) near the north site boundary. Thise ash was in poor condition with extensive emerald ash borer damage on the trunks and poor leaf-out (Photo 6) and has been removed, along with white

elm up to 25cm dbh to the south of the ash that were also in generally poor condition. The only stems left in this area are regenerating green ash and Manitoba maple stems up to 15cm dbh. Wild grape coverage was common on the regenerating stems. Further south between the two fields are clusters of prickly ash shrubs and scattered red-osier dogwood and chokecherry shrubs. A 40cm dbh Manitoba maple with major trunk and lower branch damage is between the fields in the southeast portion of the site.

Manitoba maple (Photo 3) and white elm up to 22cm and 25cm dbh, respectively, are in the southeast corner of the site, along with a smaller coppice Siberian elm. Many of the Manitoba maple had damaged lower branches. Scattered regenerating Manitoba maple and white elm are also in this area. Wild grape coverage is on many of the lower stems of these trees.

City-owned Trees

Coppice (multi-stem) Manitoba maples with individual stems up to 34cm dbh dominate the deciduous trees in the intermittent deciduous hedgerow immediately adjacent to the central portion of the east site edge, along the west edge of the Eagleson Road allowance. As mentioned above, the road allowance has been expanded slightly to the west and it is now believed the majority of these trees are City owned or co-owned, though the trunks are immediately adjacent to the page fencing parallel and to the west of Eagleson Road. There are a total of seventeen Manitoba maples that now appear to be City-owned. Once a survey of the tree locations is available, confirmation of the City-owned trees will be made and a detailed list of tree size and condition will be provided. All of the Manitoba maple are coppice or twin-stem, thirteen of the coppice Manitoba maples having four or more trunks. The Manitoba maples had generally good leaf-out and most had the typical Manitoba maple poor structure with no dominant leader (Photo 4). A 38cm dbh white elm to the north of the Manitoba maples had good leaf-out and a few dead branches (Photo 5). Hawthorn shrubs and regenerating Manitoba maple and elm stems are among the deciduous trees.

Other Adjacent Trees

Scattered Manitoba maple, white elm, and crack willow trees are along the Flowing Creek Municipal Drain corridor to the west of the site. A couple of mature coppice crack willow with individual stems up to 55cm dbh are to the west of the southwest portion of the site (Photo 7). The trunks of the willow are about 35 metres west of the site and their critical root zones will not be impacted. Manitoba maple and bur oak up to 25cm dbh and smaller white ash, green ash, and white elm are also in this area. The closest of these are about five metres west of the site and their critical root zones will also not be impacted. Regenerating Manitoba maple and white elm stems are immediately to the west of the southwest corner of the site. These stems are less than 10cm dbh. Manitoba maples up to 30cm dbh are further west of the southwest site corner. The associated critical root zones do not extend onto the site. Nannyberry and hawthorn shrubs are also present here. Much of the woody vegetation is covered by wild grape, thicket creeper, and wild cucumber. There is a noticeable drop in the elevation west of the cultural meadow, and the site, towards the Flowing Creek Municipal Drain.

Adjacent to the southeast corner of the site there is a coppice white ash with individual stems up to 30cm dbh. Leaf-out on the ash was greatly reduced and the tree trunk is about eleven metres to the southeast of the site corner. The critical root zone of a coppice Manitoba maple approximately 2.6 metres to the south of the south-central site boundary will not be impacted. A coppice Manitoba maple, maximum individual trunk size of 25cm, to the southwest of the southwest corner of the development boundary appears to be in very poor condition, with dead lateral trunks and very poor form. This tree will likely be removed in association with a pathway block to Perth Street.

Wildlife observations included white-tailed deer tracks, flocks of Canada geese in the agricultural fields, American crow, northern harrier, red-winged blackbird, blue jay, black-capped chickadee, American robin, American goldfinch, European starling, savannah sparrow, and song sparrow. No potential wildlife cavities were observed in the scattered deciduous trees, and no stone piles or fences that may be used by wildlife were noted.

Photo 1 – Cultivated fields dominated the site in 2020.
This view is looking northeast from the mid-west portion of the site

Photo 2 – Cultivated fields were fallow in 2024. This view is from the west portion of the site looking east to the Manitoba maples along the west side of Eagleson Road

Photo 3 – Manitoba maple in the southeast corner of the site. View looking southwest

Photo 4 – Typical form of Manitoba maples immediately adjacent to east site edge, west of Eagleson Road. View looking southeast. Note page fence location

Photo 5 – White elm immediately adjacent to east site edge, west of Eagleson Road. View looking north

Photo 6 – Larger white ash in 2020 with extensive emerald ash borer damage in the central portion of the north site edge. View looking north. This tree had been removed by 2024

Photo 7 – Crack willow, approximately 35 metres to the west of the development site boundary. View looking northwest

Photo 8 – View looking west towards the Flowing Creek Municipal Drain from the south service corridor block along the central-west edge of the residential development

Significant Wildlife Habitat

The potential for significant wildlife habitat was assessed using the guidance in OMNR (2010) and MNRF (2015). No flora, fauna, or ecological conditions identified in the background review or field survey that would trigger a Significant Wildlife Habitat designation with respect to the ELC communities present were observed on or adjacent to the site. For example, in the intermittent hedgerows no tree cavities were noted that may support maternity colonies for bats in trees greater than 25cm dbh or other potential wildlife use, and old growth forest or forest interior habitat are not present. No stick nests were observed. Stone fences or areas of broken and fissured rock for potential use by snakes were not observed. No wetland habitat is present that may be used by amphibians, waterfowl, or other wildlife. No evidence of colonial nesting bird breeding habitat or other examples of seasonal concentration areas were observed. No rare vegetation communities as noted in MNRF (2015), rare or specialized habitat including seeps or springs, or species of special concern were observed.

Linkage functions associated with the site would be greatly limited by the developed portions of Richmond to the west and south and extensive agricultural operations to the north and east. Some north-south linkage function would exist to the west of the site along the Flowing Creek Municipal Drain, and then south to the Jock River corridor, though Perth Street is crossed to reach the Jock River.

Significant Woodlands

There are no forests on or adjacent to the site.

Species at Risk

No Species at Risk were observed during the field surveys. The MNRF's Make a Map: Natural Heritage Areas website was reviewed again September 2nd, 2024. This site allows for a search of Threatened and Endangered species covered by the 2008 *Endangered Species Act*, as well as other species of interest. A search was conducted on the 1 km squares including the site and adjacent lands (18VR30 – 46, - 55 and - 56). Five Species at Risk were identified for these squares - Blanding's turtle, butternut, least bittern, bobolink, and eastern meadowlark. Several species of special concern were also identified including snapping turtle, Midland painted turtle, northern map turtle, wood thrush, eastern wood pewee, barn swallow, and golden-winged warbler. The breeding birds listed in the Ontario Breeding Bird Atlas for the 10 km square 18VR30 identified bank swallow, eastern meadowlark, and bobolink as Species at Risk in the overall 10 km square including the site and this portion of rural Ottawa. Other potential Species at Risk in the general area include eastern whip-poor-will, black ash, and several bat species.

Bobolink and eastern meadowlark utilize large grassland areas including hayfields. The cultivated fields do not represent potential nesting habitat for these grassland species. The fallow fields did not have a high enough density of grasses and herbaceous flora for potential bobolink and eastern meadowlark habitat. Bank swallow is a colonial nester; burrowing in eroding silt or sand banks and sand pit walls, features not observed on or adjacent to the site. There are no structures on the site that may be used for nesting by barn swallow (now a species of special concern) or chimney swift. A barn to the south of the southeast corner of the site may be used by barn swallow. At its closest point this barn is about 18 metres south of the site and any utilization by barn swallow will not be impacted by the proposed development.

No butternut or black ash were observed on or adjacent to the site. Least bittern utilize larger marsh habitat, which is not present on or adjacent to the site. Eastern 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, habitat also not present on or adjacent to the site. No larger cavity trees for potential bat utilization were observed on or adjacent to the site.

Blanding's turtle is known from the Jock River corridor in the Richmond area. Turtle habitat may be along the Flowing Creek Municipal Drain itself but there are no wetlands on the site and there are no wetlands to the east of the site that a turtle may be migrating to from the Flowing Creek Municipal Drain via the site. Flowing Creek Municipal Drain is entrenched to the west of the site and there are no wetlands or suitable turtle nesting habitat within the riparian corridor between the channel and the west edge of the site. The closest site alterations will be approximately 90 metres east of the suitable turtle habitat save for the two servicing connections. The servicing connections are within open areas (Photo 8), with no in-water work or tree removal anticipated. Given the minor alterations associated with addition of a ditch and underground forcemains, no negative impact, as defined in the Provincial Policy Statement, is anticipated in association with the construction and operation of the servicing connections. With respect to Blanding's turtle habitats as defined in the General Habitat Description for the species, no Category 1 habitat is present due to the shallow water and associated lack of over-wintering

habitat associated with the Flowing Creek Municipal Drain and lack of suitable turtle nesting areas on or adjacent to the site. Category 2 habitat would be present in the Municipal Drain itself and extend by definition 30 metres to the east of the Drain. Other than the servicing connections described above, no site disturbance will occur on or adjacent to the Category 2 habitat and no impacts are anticipated on the ability of any Category 2 habitat use to the west of the site to continue during construction and operation of the residential development provided the important mitigation measures described below are properly implemented. Category 3 Blanding's turtle would extend for 220 metres east of the east edge of the Category 2 habitat and thus would include approximately 130 metres of the west portion of the development area. The primary objective with respect to Blanding's turtle habitat of the Category 3 lands are movement corridors between wetlands and waterbodies, a function which is essential for carrying out life processes associated with the Category 1 and 2 habitats. Given that there is no suitable wetland habitat on or to the east of the site that a Blanding's turtle would be using the site to access, the primary function of Category 3 habitat (linkages to other suitable turtle habitats) is not applicable to the site and no impacts are anticipated on any Blanding's turtle usage in the area from construction and operation of the proposed residential development provided the mitigation measures described below are properly implemented.

The potential Species at Risk reported for the City of Ottawa were also reviewed, with an emphasis on the endangered and threatened species historically reported in the overall City, including butternut, black ash, American ginseng, eastern prairie fringed-orchid, wood turtle, spiny softshell, Blanding's turtle, bobolink, eastern meadowlark, bank swallow, Henslow's sparrow, red-headed woodpecker, short-eared owl, loggerhead shrike, eastern whip-poor-will, bald eagle, cerulean warbler, lesser yellowlegs, Hudsonian godwit, golden eagle, least bittern, little brown myotis, northern long-eared bat, eastern small-footed myotis, tri-coloured bat, hickorynut, eastern cougar, eastern wolf, gray fox, lake sturgeon, and American eel.
The habitat requirements of these species along with those listed as special concern were reviewed.

Based on the site and adjacent habitat, the potential Species at Risk most likely to occur on and adjacent to the site are butternut, black ash, and Blanding's turtle. As indicated above, no butternuts or black ash were observed on or adjacent to the site and any Blanding's turtle utilization is anticipated to be along the Flowing Creek Municipal Drain channel only, with no impacts anticipated on the channel.

Impact Analysis and Recommendations

No significant natural heritage features, as identified in the Provincial Policy Statement and OMNR (2010), are present on or adjacent to the site other than the aquatic habitat associated with the Flowing Creek Municipal Drain and tributaries to the west of the site and potential Blanding's turtle utilization. No developed portions of the site will be within ninety metres of the Flowing Creek Municipal Drain or its tributaries. The site is dominated by cultivated fields, planted in soybeans and corn in 2019 and fallow in 2024. The fields have very limited environmental features or functions. Scattered deciduous trees are along some of the field edges, but the vast majority of trees present are susceptible to disease and/or shorter longevity including Manitoba maple, white ash, green ash, and white elm. The critical root zones of adjacent trees to

the south or west of the site will not be impacted by on-site alterations. No adjacent trees are to the north of the site. Many Manitoba maple are along the east edge of the site. These trees are now believed to be City-owned or co-owned with an expansion of the Eagleson Road allowance. It is not anticipated that these trees can be retained due to grading and other servicing requirements. A survey is required to determine which of these trees are co-owned or City-owned and discussions required with the City forester on compensation for the tree removal.

Due to the density of residential development and associated required urban servicing and grading, no tree retention is anticipated within the footprint of development. Trees will be retained within cultural meadows to the west of the site, west of the proposed residences. As indicated above, due to the grading and other servicing requirements, it appears that the City-owned trees along and immediately adjacent to the east edge of the site will need to be removed.

Plantings of native vegetation as part of the development will provide a diversity of natural environment and aesthetic features. Potential native species to plant include nannyberry, elderberry, ninebark, 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. Due to the clay soils in many areas tree and shrub species that have a high water demand are generally not recommended. These species include willow, poplar, and elm.

The following mitigation measures are recommended:

1. Woody vegetation removal is to occur before April 15th or after August 15th for the protection of breeding birds, unless a survey conducted by a qualified biologist within five days of the vegetation removal identifies no bird nesting activity;

2. Any trees to be retained are to be protected with sturdy temporary fencing at least 1.2 metres in height installed from the tree trunk a distance of ten times the retained tree's diameter where possible. Signs, notices, or posters are not to be attached to any tree. No grading, heavy machinery traffic, stockpiling of material, machinery maintenance and refueling, or other activities that may cause soil compaction are to occur within the critical root zones of the trees to be retained and protected. The root system, trunk, or branches of the trees to be retained are to be protected and not damaged. If any roots of trees to be retained are exposed during site alterations, the roots shall be immediately reburied with soil or covered with filter cloth, burlap, or woodchips and kept moist until the roots can be buried permanently. A covering of plastic should be used to retain moisture during an extended period when watering may not be possible. Any roots that must be cut are to be cut cleanly to facilitate healing and as far from the tree as possible. A qualified arborist is to prune prior to construction any branches from retained trees on or adjacent to the site that may be damaged during construction. Exhaust fumes from all equipment during construction will not be directed towards the canopies of retained trees.

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

3. Many Manitoba maple are along the east edge of the site. These trees are now believed to be City-owned or co-owned with an expansion of the Eagleson Road allowance. It is not anticipated that these trees can be retained due to grading and other servicing requirements. A survey is required to determine which of these trees are co-owned or City-owned and discussions required with the City forester on compensation for the tree removal;

4. Where required, temporary seepage barriers such as silt fencing, straw bale check dams, and other sediment and erosion control measures are to be installed to OPSD requirements in any temporary drainage ditches, around disturbed areas during construction, and stockpiles of fine material. These control measures must be properly maintained to maximize their function during construction and will be removed at the completion of construction once the site has stabilized. Any dewatering of groundwater is to be properly treated before release. Re-vegetation of exposed, non-developed areas is to be achieved as soon as possible to reduce surface erosion and the extent of exposed soils is to be kept to a minimum at all times;

5. In addition, silt fencing is to be installed and maintained around the edge of the development area. The fencing will filter any surface water heading towards the Flowing Creek Municipal Drain, help isolate the development area from potentially sensitive wildlife such as turtles, and restrict construction vehicles and other construction activity to the work area. Once the fencing is securely installed, the work area is to be searched for sensitive wildlife and the wildlife relocated as described below;

6. As recommended in City of Ottawa (2022) prior to beginning work each day, the work area is to be checked for wildlife by conducting a thorough visual inspection of the work area and immediate surroundings. See Section 2.5 of the City's Protocol for Wildlife Protection during Construction (City of Ottawa, 2022) for additional recommendations on construction site management. Any turtles or snake observed in the vicinity of the work areas or that may otherwise be in danger are to be safely relocated to the Flowing Creek Municipal Drain corridor to the west. Animals should be moved only far enough to ensure their immediate safety. See Appendix 1 and the links in Section 4 of City of Ottawa (2022) for suggestions on how to effectively relocate turtles and snakes;

7. Many helpful wildlife-oriented mitigation measures are detailed in the City's Protocol for Wildlife Protection during Construction (City of Ottawa, 2022). The contractor is to review in detail and understand the City's Protocol for Wildlife Protection prior to starting construction. The contractor is to be aware of the potential Species at Risk including butternut and Blanding's turtle. Appendix 1 of City of Ottawa (2015) describes these species. The project biologist is Bernie Muncaster (613-747-3753). Species at Risk sightings are to be immediately reported to MECP and work that may impact the species suspended immediately. Please note Species at Risk can only be relocated by those with the appropriate training;

8. Maintenance on construction equipment, such as refuelling, oil changes or lubrication, will only be permitted at designated areas of the work area where all precautions have been made to prevent spills, including oil, grease, antifreeze or other materials inadvertently entering the ground or the surface water flow. Properly constructed and maintained spill pans and traps will be required for all machinery utilized on the site. All waste oils, lubricants and filters will be collected following equipment servicing and disposed of in an appropriate manner at an approved location. Lubricants, fuels or other hazardous materials will not be placed outside of the work areas. The washing of any type of equipment or machinery is not to occur outside of designated areas;

9. No burning or burying of rubbish and waste materials is permitted on the site and unauthorized disposal of solvents on or off the site will not be permitted. 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;

10. To discourage wildlife from entering the work area during construction, the work area should be kept clear of food wastes and other garbage, and proper drainage provided to avoid accumulation of standing water, which could attract amphibians, birds, and other wildlife to the work area;

11. Waste will be managed in accordance with provincial regulations and the contractor will have a spill kit on-hand in case of spills or other accidents;

12. During operation of the residences all pets are to be under control at all times; and,

13. Roof runoff should be directed to grass or other permeable surfaces wherever possible.

Schedule of Proposed Works

Removal of the on-site woody vegetation not to be retained is proposed for 2025 outside of the breeding bird season.

Conclusion

A total of 464 residential units are proposed for site, composed of 139 townhomes, 70 semi-detached units, and 255 detached single units. The site is within the northeast portion of the Village of Richmond and is disturbed from a natural environment perspective by a dominance of agricultural fields. No Species at Risk utilization was observed or is anticipated for the site itself other than butternut, which was not noted, and perhaps Blanding's turtle within the Flowing Creek Municipal Drain to the west. Other than the Drain, no significant natural heritage features were observed on the site or adjacent to the site. Site alterations will be greater than thirty metres from the watercourse and its tributaries, except for the service corridors. No in-water work is anticipated for the service connections.

Planting of native trees and shrubs will add to the features and functions of the site and over time replace the limited functions of the scattered trees of limited longevity to be removed. With the proper implementation of the mitigation measures outlined in this report it is anticipated that there will be no negative impacts, as defined in the Provincial Policy Statement, on the natural

environment features of the general area, including the Flowing Creek Municipal Drain corridor to the west.

References

Brunton, D.F. 1997. Summary: Natural Area Reports for Natural Areas West of Rideau River (500 series). Prepared for the Regional Municipality of Ottawa-Carleton, Planning and Development Approvals Department. 164 pp.

City of Ottawa. 2022. Protocol for Wildlife Protection during Construction. Revised December, 2024. 14 pp & Append.

Marshall Macklin Monaghan and WESA. 2005. Jock River Reach 2 & Mud Creek Subwatershed Study. Existing Conditions Report. May 2005. Three Volumes

Ontario Ministry of Natural Resources. 2010. Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement, 2005. 2nd Edition. March 2010. 233 pp.

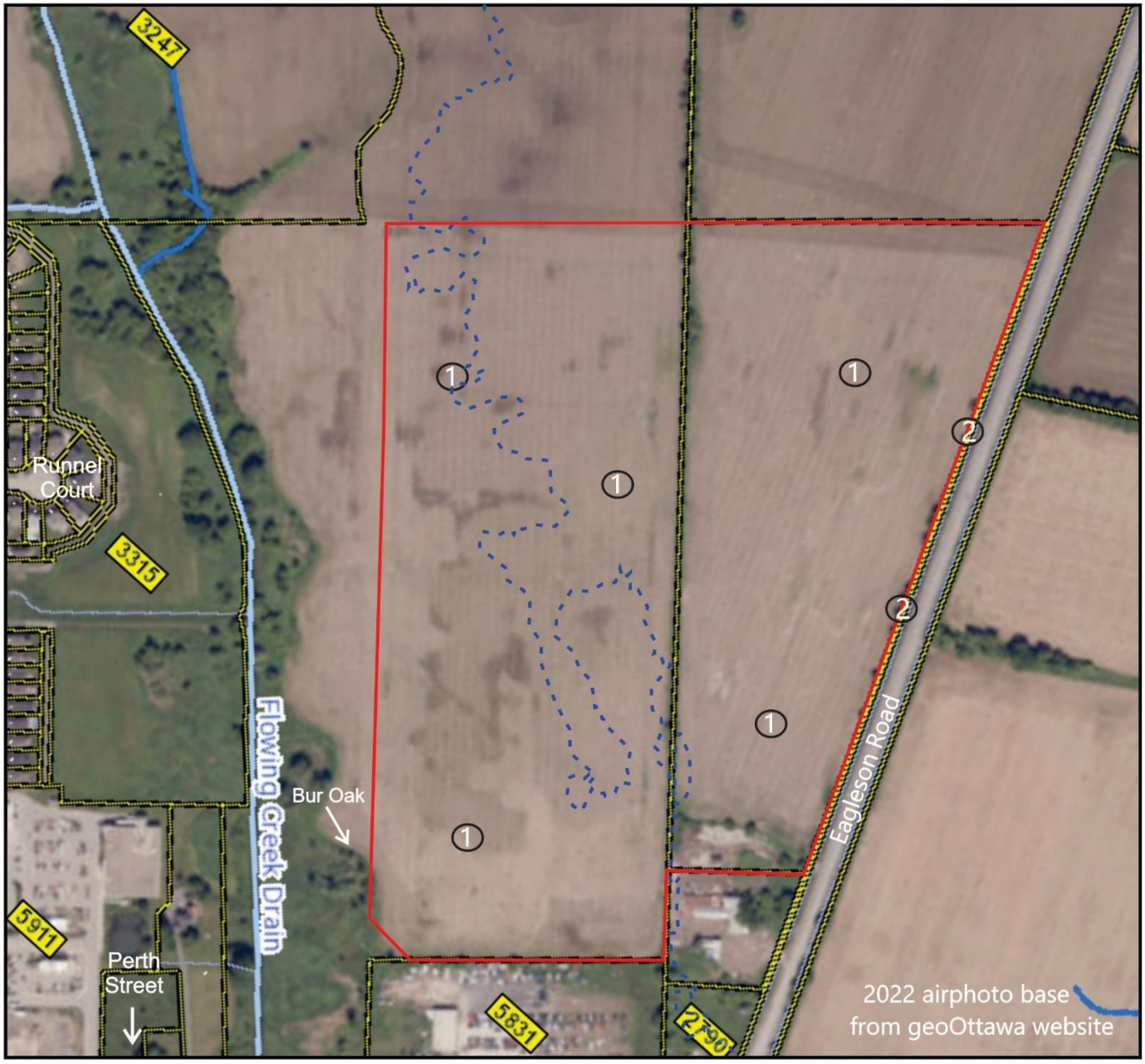
Ontario Ministry of Natural Resources and Forestry. 2015. Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E. January, 2015. 38 pp.

Please call if you have any questions on this updated EIS and TCR.

Yours Sincerely,
MUNCASTER ENVIRONMENTAL PLANNING INC.

Bernie Muncaster, M.Sc.
Principal

creeksideeis24



Legend

Site

Original Floodplain

Vegetation Communities

1 Cultural meadow

2 Intermittent deciduous hedgerow

NW NE SW SE

Approx. Scale 1: 5,000

0 50 100 150 200 METRES

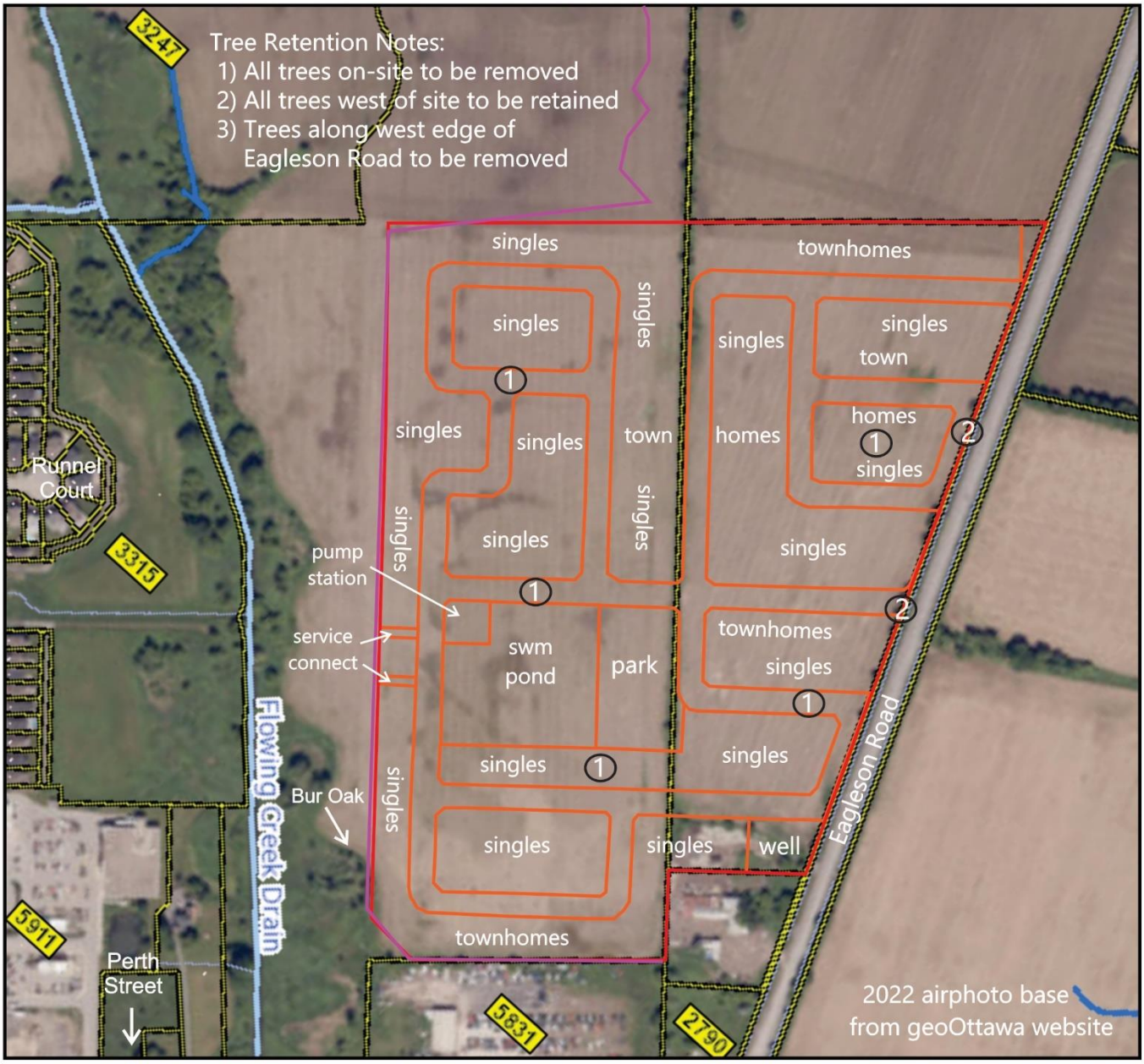
FILE: 20 - 01	Map 1	Sept. 6, 2024

CURRENT VEGETATION

Creekside Phase 2
Richmond, City of Ottawa

Prepared for: 1470424 Ontario Inc.

Prepared by: Muncaster Environmental Planning Inc.



Legend

Site

Floodplain (post cut-fill)

Approx. Scale 1: 5,000

0 50 100 150 200 METRES

Vegetation Communities

1. Cultural meadow
2. Intermittent deciduous hedgerow

FILE: 20 - 01	Map 2	Sept. 7, 2024

PROPOSED CONSERVED VEGETATION

Creekside Phase 2
Richmond, City of Ottawa

Prepared for: 1470424 Ontario Inc.

Prepared by: Muncaster Environmental Planning Inc.