

Natural Heritage Considerations – Environmental Impacts Study

Areas of Interest

1. Tree removal
2. Deer Corridor and Deer Habitat
3. Proximity to Torrance Creek Provincially Significant Wetland (PSW)
4. Bat colony, bird, and amphibian habitat

Natural Heritage Studies Background

- Property has been subject to natural heritage studies since 2014, including by previous owners.
- Previous owners were actively engaged in the OPA 42 Natural Heritage Systems review process.
- The current EIS study was completed in accordance with a Terms of Reference developed in consultation with and approved by the City of Guelph and Grand River Conservation Authority (GRCA). Field studies conducted in support of the EIS included on-site surveys of the property with both the City and GRCA ecologists. Consultation with the regulators was ongoing throughout the EIS and supporting studies.

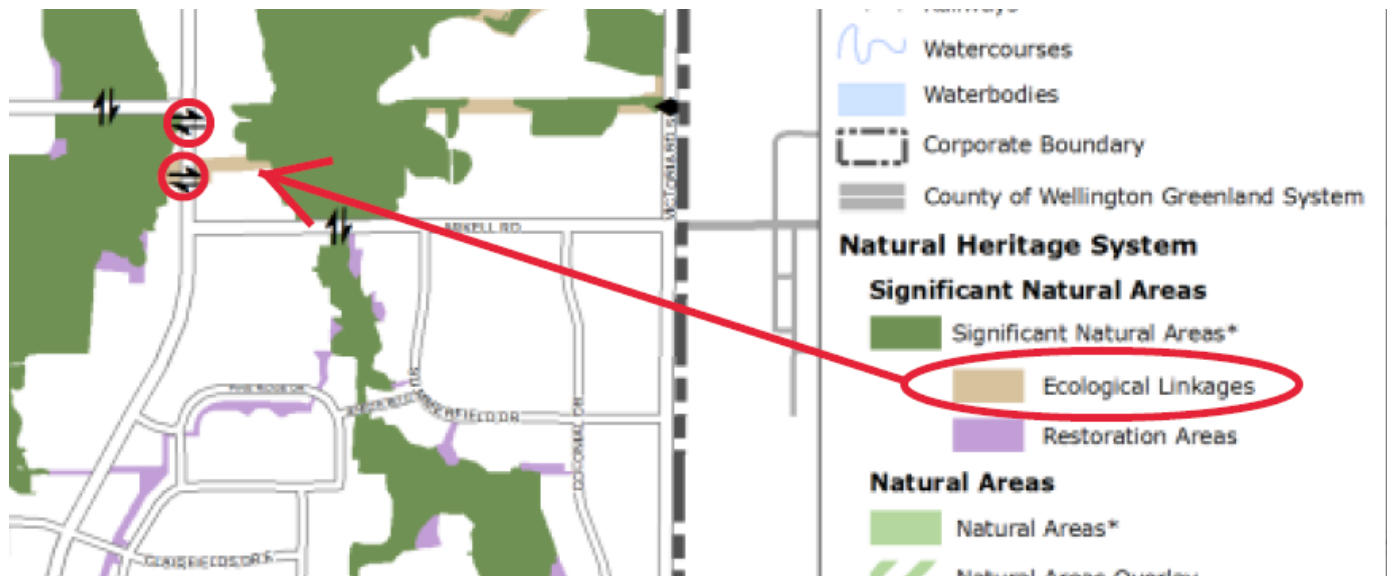
Tree removal

- 707 trees were inventoried, approximately 32% of those trees are non-native (232), 606 of which are to be removed with 88 in poor condition and not subject to replacement.
- The 707 trees inventory only include those trees in the development footprint (See Figure below), the dense woodlands on property are protected and will remain untouched, as such 606 are the trees to be removed in the development footprint area include lot hedgerows.
- Total of 512 trees to be removed are in fair to good condition.
- Compensation is to be refined and approved as per the City of Guelph's replacement requirements and can include either cash-in-lieu or replacement of trees (or combination of two).



Deer Corridor and Deer Habitat

- Two deer crossing locations on Gordon Street were identified in the vicinity of the property as shown on OPA 42 Schedule 10 Natural Heritage System approved by Council (see below).



- The northern crossing location is found adjacent to the subject property and is a secondary crossing to the nearby southern crossing that is identified as the Ecological Linkage between the Torrance Creek Wetland and Hanlon Creek PSW areas.
- The OPA 42 crossing locations were based on secondary source information gathered during a review of Guelph's Natural Heritage System; no specific deer studies were undertaken for the assessment.
- Based on the potential for deer movement and deer usage in the area of the subject property, a site-specific deer study was initiated as part of the EIS studies. The study was to understand deer activity on site and movement patterns between the Torrance Creek PSW and Hanlon Creek PSW, both identified as deer congregation areas.
- The surveys focused on the deployment of 5 motion sensor cameras and deer track observations.
- Camera set up and preferred recording location were determined in collaboration with the City of Guelph ecologist. The property was also reviewed for signs of deer browse, deer trail evidence, shed antlers, deer scat and carcasses. The cameras recorded observations over a three-month period from November to February (2018-2019). Track and other deer sign observations were made during all other field studies conducted on-site. (April to November, 2018).
- Results of the survey recorded 158 deer observations over the three months with days when deer were recorded showing 3 to 5 observations at a single camera; a few days showing 8-9 observations. This is indicative of a relatively small group of deer foraging on the property in the denser wooded areas and the edge of the central meadow.
- The camera and track evidence confirms deer movement at the back 1/3 of the property, northwest side and along the northern limit of the property in a north south direction coincident with the portion of the Torrance Creek wooded area that extends onto the property.
- There is no evidence of tracks at the front of the property, towards the potential Gordon Street movement corridor. Although deer may venture and cross in various location, the identified Gordon Street crossing is not an active deer crossing location.

- The crossing is not ideal for deer as the crossing parallels Edinburgh Road and occurs at the intersection of Gordon Street and Edinburgh Road. The lands to the west, leading to the crossing, offer little cover for deer as the area is comprised of lower marsh and meadow vegetation. The southern crossing, which is established, offers a preferred crossing location for deer midway along Gordon Street between the Edinburgh and Arkell intersections.
- In summary, the wooded area of the property and meadow where deer activity has been recorded is part of the protected area of the development and will remain naturalized with no removal of trees in the denser significant woodland areas. The temporary disturbance of a portion of the meadow for the installation of a subsurface infiltration trench will be rehabilitated to a natural meadow with some added shrubs and tree cover of native species to support deer staging and foraging.
- There are no anticipated impacts to the overall deer population, the movement of deer within the City or the usage of the property by deer.

Proximity to Torrance Creek Provincially Significant Wetland (PSW)

- The nearest component of the development is a storm water management infiltration trench that is 70m from the wetland at its closest point and will be rehabilitated to an open meadow area following installation of the subsurface components.
- The actual development area consisting of condominiums and parking are 130m from the Torrance Creek PSW.
- A general standard distance from a PSW in the Grand River watershed is 30m, as supported by the City of Guelph's Official Plan policies.
- The subject property development has the greatest setback from Torrance Creek PSW of the recent development footprints along Gordon Street between Arkell Road and Emery Lane.
- The water regime studies for the subject property that have been reviewed by agencies and indicate no impacts to the wetland from the proposed development plan.

Bat colony, bird, amphibian habitat

- Extensive bat surveys of both candidate bat maternity trees and the existing houses were completed on-site through habitat assessments and high frequency acoustic monitoring. No species at risk bats were observed using features within the projected footprint on the property.
- Breeding bird surveys documented a total of 20 common species of birds on-site. Eastern Wood-Pewee (Special Concern) is located within the woodland and will not be impacted. Barn Swallows (Threatened) were observed but targeted surveys did not identify Barn Swallow nesting on-site.
- No development area bat or bird constraints were identified as part of the EIS. The protected significant woodland area of the property offers the best habitat for avian fauna and mammals and this area has been protected and assigned a buffer as per the City of Guelph's OP policies.
- No significant amphibian habitat was recorded on-site or on the nearby adjacent lands, determined by studies conducted in accordance with provincial standards and assessment protocols (e.g., Marsh Monitoring Protocol, Ecoregion Criteria).