

# Environmental Impact Study ISSUES SUMMARY CHECKLIST REPORT

Application Title: Eagle Ridge Subdivision Phase II EIS

Date Submitted: ~~September 2015~~ Oct 5<sup>th</sup>, 2015

Proponent: West Kains Lands Corporation

## Qualifications

Primary Consultant: AECOM

Key Contact Person: Gary Epp

Other Consultants/field personnel:

Hydrogeology / Hydrology: n/a

Geotechnical: n/a

Biological - Flora AECOM

Biological - Fauna AECOM

Other:

## Context for Background Information

Subwatershed: Riverbend Subwatershed

Tributary Fact Sheet Number: Riverbend Watershed Report Card

Planning/Policy Area: Riverbend Area

## Technical Advisory Review Team

- Ecologist Planner *James MacKoy*
- Planner for the File *Bruce Page*
- EEPAC *Sandy Leuk.*
- Conservation Authority *Christine & Tara*
- Ministry of Natural Resources
- Ministry of Energy and Environment
- Ministry of Municipal Affairs and Housing
- Ministry of Agriculture and Food

Other Review Groups (e.g. Community Associations, Field Naturalists)

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## 1.0 DESCRIPTION OF THE ENVIRONMENT (Features)

*Purpose: To have a clear understanding of the current status of the land, and the proposed "development" or land use change.*

### 1.1 Mapping (Location and Context)

*(current aerial photographs, preferably ortho-images, 1:2000 Ontario Base Map, NTS 1:50,000 maps)*

- Land Use - Excerpts of the Official Plan for the City of London Ontario Schedules A, B, showing a 5-10km radius of subject site
- Terrain setting @ 1:10,000 – 1:15,000 scale showing landscape features, subwatershed divides
- Existing Environmental Resources @ 1:2,000 -1:5,000 showing Vegetation, Hydrology, contours, linkages
- Environmental Plan or Strategy from Subwatershed reports (tributary fact sheet), Community (Area) Plans, or other

### 1.2 Description of Site, Adjacent lands, Linkage with Natural Heritage System

*List all supporting studies and reports available to provide background summary (e.g. sub-watershed, hydrological, geo-technical, natural heritage etc.); check the first box if it is relevant to the subject area and surrounding landscape, and check the second box if it is determined that sufficient information is available.*

**AECOM. 2013. Tributary "C" Storm/Drainage & Stormwater Management & Sanitary Trunk Servicing Works Environmental Impact Study**  
**UTRCA. 2006. Middlesex Natural Heritage Study.**

#### 1.2.1 Terrain Setting

- Soils (surface & subsurface)
- Glacial geomorphology- landform type
- Sub-watershed
- Topographic features
- Ground water discharge
- Shallow ground water/baseflow
- Ground water recharge/aquifer
- Aggregate resources

#### 1.2.2 Hydrology

- Hydrological catchment boundary
- Surface drainage pattern
- Watercourses (Permanent, Intermittent)
- Stream order (Headwater, 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> or higher)
- Agricultural drains
- Downstream receiving watercourse

1.2.3 Natural Hazards

- 100 year Erosion Line
- Floodline mapping
- ~~Fill line mapping~~ *max hazard line.*

1.2.4 Vegetation

- Vegetation Patch number 07032 ✓
- System (Terrestrial, Wetland, Aquatic)
- Cover (Open, Shrub, Treed)
- Community Type(s)
- ELC Community Class (Bluff, Forest, Swamp, Tallgrass Prairie, Savannah & Woodland, Fen, Bog, Marsh, Open Water, Shallow Water)
- ELC Community Series
- Rare Vegetation Communities

1.2.5 Flora

- Flora (inventory dates, source) ✓  
**Floral inventories to be undertaken as part of this work.**
- Rare flora (National, Provincial, Regional) ✓  
**Floral inventories to be undertaken as part of this work.**

1.2.6 Fauna

- Fauna (inventory dates; source) ✓  
**Incidental surveys being undertaken as part of 2015 field program**
- Breeding Birds ✓  
**Breeding bird surveys being conducted as part of 2015 field program**
- Migratory Birds ✓  
**Breeding bird surveys being conducted as part of 2015 field program**
- Amphibians ✓  
**surveys being conducted as part of 2015 field program**
- Reptiles ✓  
**Incidental surveys being undertaken as part of 2015 field program**
- Mammals ✓  
**Incidental surveys being undertaken as part of 2015 field program**

*Hydrology to rec.  
Habitat assessed/Creation  
~~...~~  
Compensational area  
move materials for  
buffer*

- Butterflies  
*Incidental surveys being undertaken as part of 2015 field program*
- Odonata  
*Incidental surveys being undertaken as part of 2015 field program*
- Other SWH will be assessed
- Bird Species of Conservation Priority  
*Breeding bird surveys being conducted as part of 2015 field program*
- Rare Fauna  
*Floral surveys being conducted as part of the 2015 field program*

1.2.7 **Wildlife habitat**

- Species-At-Risk critical habitat mapping \_\_\_\_\_
  - Winter habitat for deer, wild turkey
  - Waterfowl Habitat (wetlands, poorly drained landscape – bottomlands, beaver ponds, seasonally flooded areas, staging areas, feeding areas)
  - Colonial Birds Habitat
  - Hibernaculua
  - Habitat for Raptors \_\_\_\_\_
  - Forests with springs or seeps
  - Ephemeral ponds
  - Wildlife trees (snags, cavities, x-large trees > 65 cm dbh)
  - Forest Interior Birds
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- Area-sensitive birds
- 

*All of the above will be verified during 2015 assessment. MNR has been contacted have yet to receive information.*

1.2.8 **Aquatic Habitat**  
 (SWS Aquatic Resources Management Reports)

- Fish communities \_\_\_\_\_
- Fish spawning areas \_\_\_\_\_

*Handwritten notes:*  
 1.2.8 Aquatic Habitat  
 SWS Aquatic Resources Management Reports  
 Fish communities  
 Fish spawning areas

- Fish migration routes
- Thermal refuge for fish
- Thermal Regime (cold, cool, warm)
- Benthic inventory

\_\_\_\_\_

\_\_\_\_\_

- Substrate \_\_\_\_\_

- Riparian habitat (extent and type)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**All of the above will be confirmed through the summer and fall assessment.**

**1.2.9 Linkages and Corridors**

*(The diversity of natural features in an area, and the natural connections between them should be maintained, and improved where possible. Provincial Policy Statement 2.3.3).*

- Valleylands
- Significant Watercourses (Thames River, Stoney Creek, Medway Creek, Dingman Creek, Pottersburg Creek, Wabuno Creek, Mud Creek, Stanton Creek (Drain), Kelly Creek (Drain))
- Upland Corridors / migration routes
- Big Picture Cores and Corridors
- Linkages between aquatic and terrestrial areas (riparian habitat, runoff)
- Groundwater connections
- Patch clusters (mosaic of patches in the landscape)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**1.3 Social Values**

**1.3.1 Human Use Values**

- Recreational linkages for hiking, walking
- Nature appreciation, aesthetics
- Education, ,research
- Cultural / traditional heritage
- Social (parks and open space)

- Resource Products (e.g. timber, fish, furbearers, peat)
- Aggregate Resources

✓ 1.3.2 **Land Use-Cultural**

done

- Archaeological (pre 1500)
- Historical (post 1500-present)
- Adjacent historical and archeological
- Future

✓ 1.3.3 **Land Use-Active**

- Current
- Historical (past 50-100 years)
- Adjacent lands
- Future

1.3.4 **Other** \_\_\_\_\_  
 \_\_\_\_\_

**2.0 EVALUATION OF SIGNIFICANCE**

**Components of the Natural Heritage System**

*The policies in Section 15.4 apply to recognized and potential components Of the natural heritage system as delineated on Schedule "B", or features that may be considered for inclusion on Schedule "B". They also address the protection of environmental quality and ecological function with respect to water quality, fish habitat, groundwater recharge, headwaters and aquifers.*

1.1 **Environmentally Significant Areas**

Identified Environmentally Significant Areas  
 (Recognized in Official Plan (Schedule "B" and/or  
 Section 15.4.1.1

Name



Potential Environmentally Significant  
 Areas – Expansion of (Recognized in  
 Section 15.4.1.2 and Schedule "B")

Name

\_\_\_\_\_

Potential Environmentally Significant Areas  
 (Recognized in Section 15.4.1.5 and Schedule  
 "B")

Name: Tributary "C" ESA, as documented within **AECOM. 2013.  
 Tributary "C" Storm/Drainage & Stormwater Management & Sanitary  
 Trunk Servicing Works Environmental Impact Study**

1.2 **Wetlands**

- Provincially Significant Wetlands

- Locally Significant Wetlands
- Unevaluated Wetlands

1.3 Areas of Natural and Scientific Interest

- Provincial Life Science ANSI
- Regional Life Science ANSI
- Earth Science ANSI

✓ 1.4 Habitat of Species-At-Risk (SAR)

- Endangered
- Threatened
- Vulnerable

✓ 1.5 Woodlands

- Significant Woodlands
- Unevaluated Vegetation Patches

2.6 Corridors and Linkages

- River, Stream and Ravine Corridors
- Upland Corridors
- Naturalization and Anti-fragmentation Areas

### 3.0 IDENTIFICATION AND DESCRIPTION OF FUNCTIONS

**Ecological Functions** *The natural processes, products or services that species and non-living environments provide or perform within or between ecosystems and landscapes. Check those functions that will be required to assess for the study (key and supporting functions).*

#### 3.1 Biological Functions

- habitat (provision of food, shelter for species)
- limiting habitat
- species life histories (reproduction and dispersal)
- habitat guilds
- indicator species
- keystone species
- introduced species
- predation / parasitism
- population dynamics
- vegetation structure, density and diversity
- food chain support
- productivity
- diversity
- carbon cycle
- energy cycling
- succession and disturbance processes (natural and man-made)
- relationships between species and communities

EA ✓

### 3.2 Hydrological and Wetland Functions

- ground water recharge and discharge (hydrogeology)
- water storage and release (fluvial geomorphology)
- maintaining water cycles (water balance)
- water quality improvement
- flood damage reduction
- shoreline stabilization / erosion control
- sediment trapping
- nutrient retention and removal / biochemical cycling
- aquatic habitat (fish, macroinvertebrates)

### 3.3 Landscape Features and Functions

- ✓
- size
  - connections, corridors and linkages
  - proximity to other areas / natural heritage features (e.g. woodlands, wetlands, valleylands, water, etc. )
  - fragmentation

### 3.4 Functions, Benefits and Values of Importance to Humans

- ✓
- contributing to healthy and productive landscapes
  - improving air quality by supplying oxygen and absorbing carbon dioxide
  - converting and storing atmospheric carbon
  - providing natural resources for economic benefit
  - providing green space for human activities
  - aesthetic and quality-of-life benefit
  - environmental targets and/or environmental management strategies