STRATHCONA COUNTY

Directive

Biophysical Assessment

Cross-reference: SER-009-041 Conservation of Biological Diversity

Policy Statement

Strathcona County will use the results of a biophysical assessment for prioritizing and dedicating Environmental Reserve, Environmental Reserve Easement, Municipal Reserve, Conservation Reserve and Conservation Easement lands based on municipal, community and environmental needs.

Purpose

The purpose of this directive is to ensure that Strathcona County has procedures designed to assess and prioritize lands with natural value and essential biological diversity.

Definitions

Biophysical Assessment means an assessment of the biological and physical elements of an ecosystem, including geology, topography, hydrology and soils.

Conservation Easement Agreement means a binding voluntary legal agreement between Strathcona County and a landowner for the purposes of conserving biological diversity. The agreement is registered on the title of the land in perpetuity.

Guidelines

During the Area Concept Plan, Area Structure Plan, and/or subdivision application process, each property will require a Biophysical Assessment to identify potential Conservation Reserve, Conservation Easement, Environmental Reserve, Environmental Reserve Easement, and Municipal Reserve. The Biophysical Assessment must be completed by a qualified professional in the environmental field. In order for Strathcona County to accurately assess the Biophysical Assessment, the report should include the following:

1 INTRODUCTION
- (a) Scope (subject property location)
- (b) Development Project Description (proposed development as per the current Municipal Development Plan)
- (c) Objectives

2 DISCUSSION
- (a) Study Area
  - (i) Location (in context of surrounding landscape)
  - (ii) Climate (average precipitation, seasonal temperatures)
  - (iii) Physiographic Description (in context of Natural Regions and Subregions of Alberta)
- (b) Approach and Assessment Methods (information review, field surveys, inventories)
- (c) Applicability of Federal, Provincial and Municipal Legislation

3 ASSESSMENT RESULTS

(a) Historical Air Photos (dating back to 1950, focus on surface water, wetlands, land use changes)
(b) Field Reconnaissance, Sampling and Surveys (landscape characteristics, species lists, plant community mapping)
(c) Topography (landform classification)
(d) Geology (surficial geology classification)
(e) Soil (soil classification)
(f) Hydrology
    (i) Surface water (ephemeral and permanent drainage patterns)
    (ii) Groundwater (potential for groundwater recharge)
(g) Wetlands (wetland classification)
    (i) Wetland delineation (vegetation community classification, species list, exotic species)
    (ii) Wetland classification
(h) Uplands (vegetation community classification, species list, exotic species)
    (i) Tree conservation at single tree and/or tree stand scale (resource evaluation, conservation suitability)
(i) Wildlife (species list of direct and indirect observations)
    (i) Birds
    (ii) Fish
    (iii) Herptiles (reptiles and amphibians)
    (iv) Invertebrates
    (v) Mammals
    (vi) Rare, threatened and endangered species (as per Alberta Natural Heritage Information Centre, Alberta's Biodiversity Species Observation Database and/or Committee on the Status of Endangered Wildlife in Canada)

4 CONSERVATION RECOMMENDATIONS

(a) Environmental Reserve/Environmental Reserve Easement (boundaries of recommended Environmental Reserve and Environmental Reserve Easement lands)
(b) Municipal Reserve (potential upland habitats for ecological/pedestrian connectivity)
(c) Conservation Reserve/Conservation Easement (potential upland habitats for ecological connectivity and conservation)

5 CONCLUSIONS

Policy Record

Next Review Date: March 18, 2023 **Policy No:** SER-009-032D

Last Review Date: March 18, 2020 **Replaces:** N/A

Administrative Review: Planning and Development Services

Approved by:

Signed – Kevin Glebe
Interim Chief Commissioner

March 18, 2020
Date