

1 INTRODUCTION

1.1 Study Background

The recent amendment of provincial Bill 39 in May of 1996, which saw the approval of conservation easements enabling legislation, has resulted in the inclusion of Bill 39 as an integral component of Strathcona County's subdivision and development approval process. As a necessary precursor to the inclusion of conservation easements in the land and resource planning process, the County has identified the need for a comprehensive identification of prioritized natural features and wildlife habitats that can be applied consistently across the County. It is the intention of this Prioritized Landscape Ecology Assessment to address this gap.

The Landscape Ecology Assessment project has been designed as a joint project between two primary partners - Strathcona County and Ducks Unlimited Canada. Both organizations are funding partners as well as members of the Steering Committee which have overseen the project to completion and implementation. Strathcona County's role in this partnership is fairly self-evident, as they are the primary decision-making body regarding land use in the area. Ducks Unlimited Canada is the primary agency responsible for delivery of the North American Waterfowl Management Plan (NAWMP) in Alberta. The vision of the Plan, as stated in NAWMP (1994), clearly displays the Plan's commitment to sustainable development and conservation:

The vision of the North American Waterfowl Management Plan is: to recover waterfowl populations by restoring and managing wetland ecosystems; to conserve biological diversity in the western hemisphere; to integrate wildlife conservation with sustainable economic development; and to promote partnerships of public and private agencies, organizations, and individuals for conservation.

Furthermore, this broad, internationally-applicable objective of NAWMP demonstrates its compatibility with new land management ethics being implemented by Strathcona County on a more regional and local scale. A prioritized inventory of significant wildlife habitats and natural features within the County is the first step required in providing a consistent and technically-sound basis for further site by site analysis in support of implementing conservation strategies at the sub-division and development stage, a policy which will put Strathcona County at the forefront of Alberta's municipalities concerned about ecologically sensitive landscape planning.

1.2 Study Objectives

The overall goal of this project was to complete a prioritized landscape and wildlife habitat inventory which is broadly applicable across the County and which will subsequently be incorporated into the County's planning process. The Prioritized Landscape Ecology Assessment can be used to guide new development and subdivision practices and to direct future habitat and landscape restoration projects. In order to provide such a product, the following key considerations and objectives were addressed over the course of the project:

1. Reviewed and evaluated the existing criteria for habitat identification and identified existing wildlife habitat units in both the Lakes Management Plan area and the remainder of Strathcona County;
2. Identified *Priority Wildlife Habitat Units* and *Priority Wildlife Habitat Units With Restoration Value* within Strathcona County;
3. Identified critical ecosystems, remnant ecosystems, and ecosystem components; and
4. Clarified major watershed divides within the study area.

Recent advances in the depth of knowledge in the fields of landscape ecology, conservation biology, and restoration ecology have also promoted the integration of these concepts into land-use planning initiatives throughout the world. In order for these concepts to be fully applicable to on-the-ground conservation efforts, they must be implemented early in the planning stage and the indication from Strathcona County is that they support this impetus and have, therefore, included it as a critical portion of this project.