CHAPTER 1.0
INTRODUCTION

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1.1 Background

Over the last two decades, the City of Edmonton (the City), has increasingly recognized the importance of Edmonton's natural areas, their rich recreation, conservation and aesthetic potential and the numerous benefits of managing them as sustainable, permanent urban landscape features. During that period, for a number of reasons, the City has managed their largest natural area, the North Saskatchewan River Valley and tributary ravine system (NSRV system), separately from the more discreet natural areas located on the surrounding tablelands, although parallel management paths have been taken.

Parts of the NSRV have enjoyed protection as parkland for many years, however, management of the valley and its tributaries as one contiguous area began in 1981 with a comprehensive inventory of its biophysical resources (EPEC 1982). That inventory provided an essential foundation for policy and, in 1985, City Council adopted the North Saskatchewan River Valley Area Redevelopment Plan (ARP) (Bylaw 7188) that set out policy and implementation directives for land use in the river valley system. It also established a requirement for environmental assessment of development proposed for city owned lands within that plan area. In 1990, the City adopted the Ribbon of Green Concept Plan followed quickly in 1992 by the Ribbon of Green Master Plan, which established guidelines for the long-term development, use and care of the entire river valley. The Master Plan also enshrined five basic management objectives within the river valley: conservation, recreation, development, trails and education. The City aims to maximize the amount of natural and naturalized areas within the NSRV and the ARP enables the City to restore lands that were previously used for other purposes.

During the 1980s and 1990s, significant steps were also taken with respect to tableland natural areas. Edmontonians were becoming more aware of the City's rapid expansion and the loss of natural areas that was occurring as a result of that growth. In 1986, as development pushed further into Edmonton's newly annexed tablelands, the City recognized the potential for some of the remnant areas supporting native vegetation, including wetlands, to contribute to conservation efforts and provide for landscape diversity and enhanced quality of life for Edmontonians. To that end, the City commissioned an inventory that identified 1049 natural sites (City of Edmonton 1986), some very small, on the then undeveloped lands within and immediately adjacent to Edmonton. In 1992, the City produced a pivotal background study on protection of environmentally sensitive and natural areas within Edmonton tablelands. That report led to two key developments:

- Commission of a second inventory in 1993 that used minimum size criteria, classified sites based on a suite of ecological criteria and targeted Edmonton's undeveloped tablelands inside and adjacent the Transportation and Utilities Corridor (TUC). The result was identification of 246 Natural Areas, 27 Significant Natural Areas (SNAs) and 38 Environmentally Sensitive Areas (ESAs) (Geowest 1993). A last minute addition to

the inventory mandate resulted in recognition of 17 ESAs in the North Saskatchewan River Valley and Ravine system.

- Adoption of Policy C-467: *Conservation of Natural Sites in Edmonton's Tablelands* in 1995, (informally referred to as the Edmonton Natural Areas policy) which encouraged the conservation and integration of as many ESAs and SNAs into the urban framework of the city as is sustainable and feasible.

Although natural areas management was evolving in a similar fashion in the river valley and on the tablelands, in the late 1990s the two areas were still managed using slightly different approaches to planning. In 1998, Plan Edmonton, the City's Municipal Development Plan, took the first step toward an integrated approach to management of the NSRV and tableland natural areas and an overarching plan that deals with all natural areas in an integrated manner. Plan Edmonton gave priority to preserving and enhancing the river valley, natural areas and open space within the urban landscape; recognizing these areas as critical aspects of successful planned growth; and, *linking them to the extent possible*. Since then, the City has worked steadily towards adoption of an integrated approach, consistently applying additional resources to natural area management. In 2002, the City created the position of Conservation Coordinator to oversee implementation of Policy C-467. In 2003, the Natural Areas Advisory Committee and the Natural Areas Policy Implementation Committee were formed, with a goal of addressing natural area issues within the City as they arise and, more generally, developing a comprehensive natural areas management plan for the City. During that time, Council also allocated funds for natural area acquisition and conservation, and for several key studies and position papers that have helped to move the conservation initiative along. More recently, departmental restructuring has created the Office of Natural Areas, whose staff is responsible for coordinating natural areas management within the City.

Progress toward an integrated management approach to natural areas throughout Edmonton culminated in late 2005, when the Office of Natural Areas developed a scope of work for preparation of an Integrated Natural Areas Conservation Plan. The work comprises three sequential components that will create a plan based on the best available science, comprehensive public involvement, and an informed and involved Council and administration. This strategic conservation plan will also consider Edmonton's natural areas in the regional context and, importantly, will include a companion implementation plan. In March 2006, the Office of Natural Areas retained Spencer Environmental Management Services Ltd. to undertake Component 1 of the Integrated Natural Areas Conservation Plan: The State of Natural Areas Project.

1.2 The State of Natural Areas Project

The State of Natural Areas Project, is intended to provide a solid foundation of information, analysis and presentation materials on which to build future components. The deliverables from

this project are to be used directly in a wide variety of settings, including administration meetings and at public fora, during subsequent conservation planning components and beyond. The City's Request for Proposals organized the State of Natural Areas Project into three main objectives:

- Objective 1: Conservation Mapping using Existing Data Sources
- Objective 2: Landscape Linkages/Connectivity Analysis
- Objective 3: Natural Areas Systems Analysis.

Each objective was to be summarized in a stand-alone report describing the resulting products and analyses. This report documents the materials and methods used to prepare the map products related to Objective 1. The focus of Objective 1 was to create mapping describing the current status of Edmonton's natural areas and progress in protecting those areas since the 1993 inventory. Central to that task was the important step of updating maps of Edmonton's natural areas to reflect changes since 1993. The specific goals and organization of this report are reviewed in the sections below, as an introduction to the methods and results of the Objective 1 mapping exercise.

1.3 Goals of Objective 1

Objective 1 was to provide background data and mapping relating to three key themes:

- Natural areas in Edmonton, specifically portraying:
  - an updated inventory of all natural areas on Edmonton's tablelands and within the NSRV, including NSRV sites not delineated in the 1993 inventory, based on 2005 aerial photography;
  - losses, as of 2005, to the original 1993 natural areas inventory; and
  - the extent of protection currently applied to the updated inventory of natural areas, including within the NSRV.
- Greater Edmonton natural areas map: A map illustrating Edmonton's natural areas within the regional context of significant natural areas on lands surrounding Edmonton.
- General resources mapping: A series of maps illustrating Edmonton's agricultural soils capability, special status plant and wildlife species observations, vegetation, and surficial geology.

These products were to be used as information sources in their own right and also as a foundation for the connectivity analysis to be done under Objective 2.

This report outlines the methods and background information used to develop these map products, and presents the maps themselves with basic interpretive comments.

1.4 Report Organization

Chapter 1 of this report presents an overview of the broader study context of the State of Natural Areas Project and more specific goals of this first objective of the project. Chapter 2 outlines the methods used to develop the maps, including a description of the key decisions made during that process. Subsequent chapters then present each of the resultant map series, with some discussion on the interpretation and limitations of the maps themselves: Chapter 3 presents the Edmonton Natural Areas series of maps; Chapter 4, the regional natural areas map; and Chapter 5, the general resource maps. Lastly, Chapter 6 lists references cited in the report. Appendix A provides supporting data relevant to the map products.