



# Ecosystem Services

## Ecosystem Services Approach Pilot on Wetlands

### Project Overview

#### Introduction

The Ecosystem Services<sup>1</sup> pilot is part of the longer term Ecosystem Services Roadmap intended as a tool under the Cumulative Effects Management Framework to help inform trade-off decisions and assure more robust decision-making. The Ecosystem Services pilot team was mandated to demonstrate the use and replicability of the ecosystem services to support department priorities.

Using an ecosystem services (ES) approach<sup>2</sup> is an opportunity for decision-makers to recognize previously unseen benefits as well as mitigate some unforeseen impacts stemming from development choices. By examining the environment through a framework of ecosystem services, decision-makers will have a more complete picture of the social, economic and environmental consequences, values and perspectives of development, and conservation activities on the landscape.

#### Project timeline

- November 2010 – September 2011
- Various deliverables are planned throughout the pilot project with specific deadlines

#### Project objectives

- Test and demonstrate how the ES approach can be used to support decision making by explicitly demonstrating the tradeoffs between development and the benefits ecosystem provides humans;
- To explore and develop our ability to operationalize the ES approach to support decision making within Alberta Environment;
- To understand existing data and knowledge gaps with respect to ES and begin to fill them by focusing on a specific project;
- To potentially support a Cumulative Effects Management System by proactively managing risks and opportunities; and,
- To support provincial wetland management by providing additional information related to potential compensation decisions as they apply to land-use development.

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<sup>1</sup> Ecosystem services are the benefits people obtain from ecosystems (Millennium Ecosystem Assessment, 2005).

<sup>2</sup> An Ecosystem Services approach provides a framework by which ecosystem services are integrated into public and private decision making. The approach included the following components: identification of problem or issue, identification of ecosystem services being provided, dependency and impact assessment, condition and trend assessment, economic valuation of services, identification of risks and opportunities and input into decision making. Source: Ecosystem Services A Guide for Decision Makers, WRI, 2008.

## **Pilot scope**

### *In scope*

- The project will be guided by the ES approach framework and the Ecosystems and Human Wellbeing: A Manual for Assessment Practitioners (Ash et al. 2010).
- The Shepard Slough complex in Rocky View County is the case study area for the pilot project.
- The decision-making context for applying the ES approach is the current municipal and provincial approvals processes and legislation related to new developments on lands containing wetlands.
- The pilot will focus on identifying and measuring wetland ecosystem services only.
- The project team will evaluate the risks and opportunities to wetland ES associated with sub-division development.
- The project team will document ideas and recommendations for future consideration that are considered beyond the scope of the pilot.

### *Out of scope*

- The wetland policy – this project will focus on existing legislation and guidelines; not the wetland policy currently under development.
- The pilot will not identify areas for conservation.
- The pilot will not determine ecological, social or economic outcomes for the Shepard Slough area.
- The pilot is not intended to prevent sub-division development.
- The pilot will not address the environmental impact assessment or related assessment processes.
- Regional or provincial scale wetland ecosystem services assessment and economic valuation are out of scope.

## **Deliverables**

- A report reviewing the current wetland approval process and identification of gaps and recommendations on how the ES approach can fill these gaps;
- A report package focused on a specific cluster of wetlands that has significant opportunities for both development and conservation including the following components:
  - the criteria and protocols for identifying the ES wetlands study area;
  - bio-physical assessment of wetland ES;
- Economic and socio-cultural valuation of wetland ES;
- Information that can support avoidance, minimization and compensation-related decisions.
- Final report of lessons learned to describe the process of using ES approach; and
- Series of seminars based on the reports.

## **Contact information**

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