

Conservation Offsets and Regulatory Mechanism for Ecosystem Services: An Application in the Alberta Wetland Policy

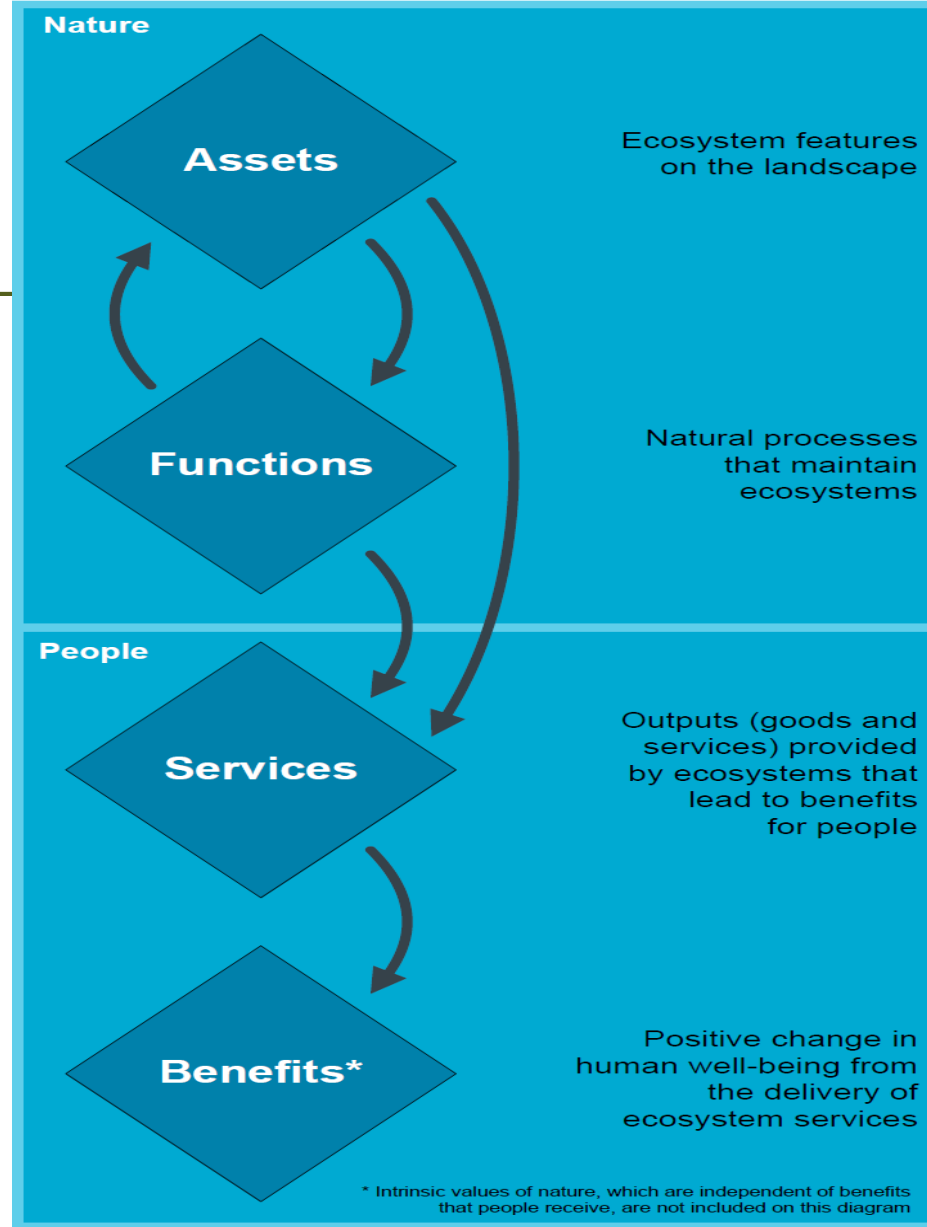
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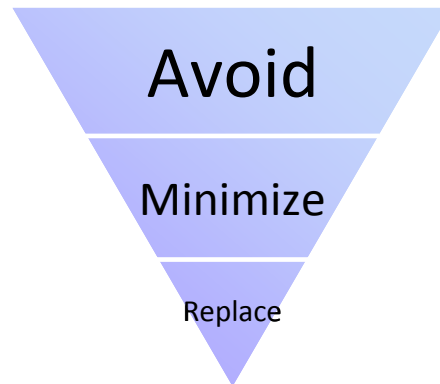
Ecosystem Services

- **Measuring Endpoints**
- Change in the ecosystem services lead to change in human well being (endpoint)
 - Example: Reduced wetland area may cause greater flood events. Flood damages are the measured endpoint – e.g. value of infrastructure, loss of access to recreation areas.



Conservation Offsets

- **Actions taken (e.g. restoration of a drained wetland) to address residual impacts remaining from an activity after efforts have been taken to avoid and minimize those impacts**
 - Mitigation Hierarchy



- **Ecosystem services can guide the decision on replacement actions to be undertaken.**

Drivers for conservation offset

- **Land Use Framework provides strategic direction on conservation offset**
 - Regional plans to date have identified offset as a tool to help meet biodiversity targets
- **Regulatory review (Jackpine Joint Review Panel)**
 - Government of Alberta develop conservation offset program to address adverse effects
- **Wetland Policy replacement requirement**

Wetland Management

- **Water management for water bodies – rivers, lakes, streams, wetlands – is governed by the *Water Act***
- **The Wetland Policy outlines how wetland functions are managed**
 - **Update to the 1993 Interim Policy – shifting from area to function based (water quality, water quantity, biodiversity, human uses)**
- **Wetland Policy *generally* requires that wetland impacts be replaced.**
 - **Wetland conservation offset program**

Conservation Offset Framework

- **Framework:**
 - outlines the governance and requirements for developing conservation offset;
 - to ensure consistency of approach; and
 - to engage affected stakeholders and regarding offset requirements.
- **Framework applies when conservation offsets are enabled by an approved policy or as part of a regional plan.**
 - E.g. Wetland Policy replacement requirement
- **Implementation details are provided in the a specific offset program**
 - E.g. allowable actions for offset, protocols (wetland example)

Offset Program Elements

Program Element	Wetland Offset Program
<i>Management Objective</i>	<u>Wetland Policy</u> Wetland replacement is required for any activity resulting in the permanent loss of a permanent wetland.
<i>Protocols</i>	Led by Alberta Environment and Parks
<i>Monitoring and Reporting</i>	Impacts and offsets are reported as part of wetland reporting.
<i>Program Coordinator</i>	AEP coordinates and oversees wetland offset program.
<i>Delivery mechanism</i>	Wetland mitigation directive specifies delivery mechanisms as either an in lieu payment or wetland offset.
<i>Impact</i>	Defined in the Wetland Policy
<i>Eligible actions</i>	Wetland mitigation directive outlines eligible actions (e.g. restoration of drained wetland, method to calculate wetland impact and restoration, wetland management units)
<i>Specification of obligation</i>	Attached to specific authorization that generated the impact.
<i>Securement</i>	Wetland mitigation directive and protocols outline the securement requirement
<i>Enforcement</i>	Impact and offset and/or in lieu requirements are attached to Water Act authorizations, which are subject to AEP enforcement.

Actions underway

- **Conservation Offset Framework – draft awaiting government decision process.**
- **Ecosystem Services Policy Framework – formalizes guidance, accountabilities, and roles for government and partners for implementing ecosystem (currently being drafted).**

Thank you

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