



# How can municipalities participate in Alberta's biodiversity conservation?

## SUBSIDIARITY IN ACTION: EFFECTIVE BIODIVERSITY CONSERVATION AND MUNICIPAL INNOVATION

### **BIODIVERSITY MATTERS**

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The world is experiencing a biodiversity crisis. According to the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, the rate of global change to nature over the last 50 years is "unprecedented in human history" and has a devastating impact on biodiversity. The loss of biodiversity adversely affects all Albertans and the province in which we live.

A report by Dr. Cameron Jefferies and Erin Sawyer emphasizes the important contribution that municipalities can make in promoting biodiversity conservation for a **sustainable future**. Strategic and innovative municipal policy can foster more resilient and biologically diverse landscapes in Alberta.

### **MUNICIPALITIES MATTER**

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Municipalities must play a key role in protecting and enhancing local biodiversity. Such a role is consistent with the **Principle of Subsidiarity**, which holds that policy decisions should be made by the most local and most responsive level of government.

Alberta municipalities have a clear mandate under the Municipal Government Act (MGA) to foster the well-being of the environment and the legal authority to implement a wide variety of biodiversity measures using statutory plans, land use bylaws, conservation easements, environmental reserves, and more.

The report found that municipalities large and small, urban and rural, can adopt novel legal initiatives to improve their biodiversity-related conservation actions. To ensure the success of such initiatives, improvements in the following areas need to be made:

- 1 Funding
- 2 Governance
- 3 Citizen engagement

# VALUE AND COST OF BIODIVERSITY

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**What is Biodiversity?** Biological diversity can be understood as the variety of life that is found on Earth, the assemblages they form, and the interactions that occur between biotic and abiotic components of our world.

## What is the State of Biodiversity in Major Cities?

Biodiversity awareness is growing in Alberta's urban municipalities. While Calgary and Edmonton are taking steps to ensure ongoing conservation of natural areas, efforts continue to be challenged by economic and political constraints. Edmonton offers great insight into how municipalities can face biodiversity conservation with defined conservation initiative strategies and well laid out plans.

The intermunicipal biodiversity planning in the Edmonton region illustrates how separate municipalities can work together towards similar goals. Cooperating the variety of municipalities under a defined ecological framework.

**Valuing Nature:** In order to address biodiversity conservation the value of nature must first be addressed. There are two opposing views on the valuation of nature. Some believe that nature should be valued intrinsically due to the the benefits they provide to the human population. Others feel the value of nature should be monetized so that it can be included in land-use decisions as well as into calculations of national wealth. When properly managed, ecosystem services may continue to provide services in perpetuity, however, when these services are replaced by built or grey infrastructure, there is a depreciation of the physical infrastructure as it ages and requires updates or renewal.

The full report delves into great detail, discussing how to encourage, plan, and implement different ecosystem services. With a combination of environmental sciences and economics the following possibilities each offer their own benefits and challenges; taxes and subsidies, offsets and mitigation banking, conservation finance, corporate responsibility, green bonds, and development fees and levies.

## Environmental Governance Structure

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Canada's provincial and federal governments are understood to have the authority and responsibility to produce substantive environmental laws. Enhanced municipal authority within the cooperative federalism matrix may enable local government to create more effective environmental initiatives that complement or enhance provincial and federal action. In Alberta, the MGA gives local governments (municipalities) an active role in the protection and enhancement of biodiversity, supporting the Subsidiarity Principle.



# NEW MGA AMENDMENTS

Beginning in 2015, a series of bills were passed with the goal of modernizing the MGA. The Act expands and clarifies municipal responsibility over environmental concerns and expands the municipal toolkit for addressing biodiversity conservation.

## EXAMPLE: MUNICIPAL BYLAWS FOR BIODIVERSITY CONSERVATION

The report identifies several examples of local bylaws that may be used to support conservation efforts under the new MGA. More information regarding the potential bylaws is available in the full report:



Landfill Greenhouse Gas Bylaw



Environmental Reporting and Disclosure Bylaw



Green Roof Bylaw



Private Tree Protection Bylaw

With the vision of more sustainable ecosystems, municipalities now also have a variety of tools beyond bylaws at their disposal, centred around biodiversity conservation.

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**Subsidiarity in Action: Effective Biodiversity Conservation and Municipal Innovation** was completed October 2019.

**Backgrounder V.01** Full paper can be found here



## Research Team

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## Alberta Land Institute

The Alberta Land Institute (ALI) ALI is an independent research institute based at the University of Alberta. We are committed to research that supports and enhances land use policy in the province of Alberta and beyond. ALI's work focuses on the changing landscape and the ways that planning and policy design can ensure the long-term sustainability of Alberta's agricultural sector, its water and its natural areas.

Backgrounder prepared by Payton Baltzer (ALI)

**For more information on this project, contact the Alberta Land Institute:**

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