

Biodiversity Action Plan – Background Information for discussion purposes

Our commitment As directed by Council, The City of Calgary has agreed to sign the Durban Commitment, an international agreement on biodiversity. The City has partnered with Local Action for Biodiversity (LAB) and committed to develop a corporate-wide **Biodiversity Action Plan**. The LAB program places a focus on fostering local innovation and involvement, and on the development of local solutions to local issues.

Our mutual task The City has demonstrated its commitment to biodiversity through a number of corporate-wide plans and strategies.* The purpose of the Action Plan is to help ensure we are aligned in our goals and to document specific initiatives helping move us towards biodiversity protection and enhancement.

A successful Action Plan will include broad objectives with well-defined and specific implementation strategies to protect and enhance Calgary’s ecosystems and biodiversity. The plan will also highlight who is responsible for the actions and showcase three projects demonstrating Calgary’s commitment to biodiversity conservation.

*See excerpts on the following pages from the Municipal Development Plan (MDP, imagineCalgary, 2020 Sustainability Direction and Council’s Fiscal Plan (2012-2014)

Stakeholder participation and goals The preservation of biodiversity is recognized as a significant urban issue. Parks is seeking participation from stakeholders and Calgarians, gathering advice and information to assist with the development of the Action Plan. By working together we can determine how it will assist The City’s planning and operations. Arriving at a mutual understanding, we hope to detail in the Action Plan responsibilities, roles, methods of ongoing communications and implementation timeframes.

Thank you

Your participation in these discussion groups will assist Parks as we work with stakeholders and citizens, and will ultimately assist in the development of a Biodiversity Action Plan that will help to protect the environment, now and into the future.

Council Direction – Supporting Documents

imagineCalgary
Natural Environment - Plants and animals
<u>Target 1</u>
By 2036, native biological diversity increases to healthy levels, as measured through Habitat Suitability Index indices and local key indicator species. Strategy 1
Ensure species are protected and managed and that recovery measures are in place for

threatened species.

- Establish a linked network of representative reserves in the city and throughout the bioregion, as well as enhance diversity in gardens and in support of ecosystems in the bioregion.
- Monitor and track current and emerging invasive species.
- Develop proactive management strategies to protect species.

Strategy 2 Establish programs and areas that provide for useful and sufficient habitat supplies.

- Develop a long-term plant community inventory program.
- Preserve lands essential to maintaining regional ecosystem functions.
- Protect and restore wildlife corridors.

Strategy 3 Ensure planning policies/bylaws reflect the commitments of the sustainability goal.

- Integrate biodiversity conservation and development planning (low-impact development).
- Protect and improve the carrying capacities of ecosystems.
- Encourage natural landscaping and relax bylaws that restrict natural landscaping.

Strategy 4 Raise public awareness about the importance of protecting biodiversity and ecosystems.

- Give people access to information about ecosystems and decisions affecting their ecosystems.
- Increase transparency and accountability concerning decisions that affect ecosystems, which includes greater involvement of concerned stakeholders in decision-making.
- Increase the co-ordination of multilateral environmental agreements and the co-ordination of environmental agreements with the policies and actions of international economic and social institutions.

- Foster and support local biodiversity-monitoring initiatives.

Council's Fiscal Plan

Investing in great communities and a vibrant urban fabric

P8. Protect natural/environmentally sensitive areas

2020 Sustainability Direction

Sustainable Environment – Biodiversity

1. By 2020, no net loss of unique and environmentally significant habitats
2. By 2020, species at risk are protected and have sustainable populations
3. By 2020, significant landscapes and habitats in Calgary will be restored and/or reconnected
4. By 2020, there will be an increase in the use of native plant xeriscaping in Calgary parks

Municipal Development Plan (MDP)

2.6 Greening the city

Goal: Conserve, protect and restore the natural environment.

2.6.4 Ecological networks

Objective: Maintain biodiversity and landscape diversity, integrating and connecting ecological networks throughout the city.

Biodiversity

- l. Monitor and manage invasive species that pose a threat to biodiversity and undermine an area's ability to protect water resources.
- m. Manage natural areas and open spaces primarily to conserve and promote native

biodiversity.

n. Ensure the systematic conservation of land and water to reduce habitat fragmentation and ensure wildlife and fisheries connectivity.

o. Re-establish open space connections, where feasible, to link important habitat areas within the city and region.

Links:

Upon the signing of the Durban Commitment, Calgary joins the cities of Edmonton, Montreal and others in the development of a Biodiversity Action Plan, working with a global network of partners through Local Action for Biodiversity.

Local Action for Biodiversity

<http://www.cbd.int/en/subnational/partners-and-initiatives/local-action-for-biodiversity-lab>

Calgary.ca Biodiversity Introduction Page

<http://www.calgary.ca/biodiversity>

City of Edmonton Biodiversity Website

http://www.edmonton.ca/environmental/natural_areas/local-action-for-biodiversity.aspx

City of Montreal Biodiversity Website

<http://www.cbd.int/authorities/lab.shtml>

Biodiversity Action Plan, Context and Questions

Biodiversity, a definition

Biological diversity, or biodiversity, can be considered at various levels. Most people commonly think of this in terms of species diversity, which can be measured as the number of species in a given area. We can also consider genetic diversity within a species, either between individuals in the same population, or between different populations (in a different geographic area). At a higher level, we can also look at ecosystem diversity, referring to the variety of habitats within a region.

Biodiversity also has a spatial scale – not only do you expect different species in different locations, but the genetic diversity of a single species can vary across its range. For example, species diversity can be evaluated within your yard, your local park, your city, our province, or even the entire planet; and each spatial scale will offer a different perspective of biodiversity. Factors that influence biodiversity must be considered on

each of these scales, if we are to better understand the impact of local decisions here in the city of Calgary, in the region, and globally.

Biodiversity, an urban context

A degraded or lost habitat is one that is altered in such a way that it is no longer able to support the species that would be normally present. Disturbance often leads to replacement by non-native and invasive species, and typically, a consequent loss in diversity. Habitat loss through agriculture, resource extraction, and increasingly, urban development, are recognized as the biggest threats to biodiversity globally.

However, habitats are not always eliminated completely, particularly in urban environments where remnants can remain, some of which can be incorporated into park space. The result, however, can be 'islands' of habitat where both plant and animal species are limited in their ability to move, leading to a loss of species and genetic isolation.

This scenario can create a positive feedback process where the changes that resulted in lower biodiversity continue to exacerbate the problem. As a system loses its ability to support biodiversity, it can be replaced by species that can readily adapt to urban environments – many of which are considered to be invasive. The impact can often be more far-reaching than a simple loss of species diversity.

In Calgary, we can see how habitat loss and fragmentation has occurred over time. Important habitats, such as Nose Hill Park, have been encircled by development, greatly reducing connections to other habitats. As a result, some species are becoming less common. For example, Sharp-tailed grouse have not been reported on Nose Hill in more than 15 years, and larger mammals, such as moose, are becoming increasingly rare.

In recent decades there has been a growing understanding of the complexities of nature and our increasing influence over the global dynamics of climate and ecosystems. Over 80 per cent of Canadians live in cities and it has become clear that good city planning must be good conservation planning. The International Union for Conservation of Nature has recognized that the conservation of biodiversity must be linked to human settlement if sustainability goals are to be met.

Environmental awareness continues to be important in acting positively towards biodiversity. Ecological literacy, where we begin to understand the natural processes on earth that make life possible, helps encourage us to better appreciate our communities and our place in ecological functions. First-hand experiences in our environment can help us become better aware of the actions we require so that we can become better stewards of the environment. The preservation of biodiversity is recognized as both a public engagement issue as well as expanding the scope of protected areas.

The following questions seek to provide you with a conversation starter about what we can do to both advance our awareness of biodiversity and identify steps we can take to protect it.

For discussion at the session:

1. What current practices, programs or policies are you aware of, or does your organization have in place that positively affects biodiversity in Calgary and the region?
2. What current practices, programs or policies are you aware of, or does your organization have in place that negatively affects biodiversity in Calgary and the region?
3. What formal relationships could be established between The City and your organization or other non-government organizations, local businesses, corporations, citizen groups, etc. to enhance biodiversity in Calgary and the region?
4. What could be done to encourage ecological literacy – understanding the biological processes from soil to plants to animals and our relationship with them – in the city, and what strategies could be put in place to advance positive actions towards enhancing biodiversity?

Hello,

In the upcoming weeks, The City of Calgary Parks will invite you to participate in one of several small group discussions related to The City's commitment to develop a Biodiversity Action Plan. These sessions will be conducted throughout July and possibly into August, depending on stakeholder demand. This is a Parks-led initiative for a corporate-wide plan on biodiversity planning and management. Your participation will inform development of the Action Plan as The City fulfills its commitment to protect Calgary's biodiversity.

Project context and an overview of urban biodiversity are attached to assist with preparation for these discussion sessions. We look forward to your advice and expertise as we move forward.

Prior to June 24 please let me know by replying to this email if:

- a) you are interested in participating;
- b) there is anyone else in your organization who is interested;
- c) there is anyone else you think might be interested in participating, including another organizations(s), professionals in the field and interested individuals. A second email will follow with session details (date/time/location). We value your feedback and look forward to discussing your ideas, comments and observations. If you have any questions, please contact me