

BiodiverCity Advisory Committee – Overview of Activities and Outcomes

The following work is presented as ordered by the BiodiverCity Advisory Committee's 2018 work plan and has been carried out from 2017 Q3 to 2018 Q4. Major categories of work have been summarized. As work plans cannot foresee all arising issues, the summaries are not necessarily aligned with the work plan as presented. When items have been moved, it has been noted. Additionally, if a policy item went to Committee on two dates, the latter period is used.

2017 Quarters 3 and 4

Environmental Policy

Jason Proche, Environmental & Safety Management (ESM), presented The City's current Environmental Policy, which guides how The City is committed to achieving community environmental sustainability. Currently the policy does not address biodiversity conservation. Additionally, Jason explained how City business units adhere to ISO14001 but it is not a corporate-wide program. ESM is exploring how to ensure that all relevant business units follow ISO14001.

- *Outcome:* the Committee recognized that if The City's Environmental Policy is being revisited, there lies a good opportunity for it to speak to biodiversity conservation.

Habitat Restoration Program

Tim Walls, Calgary Parks, presented The City's Habitat Restoration Program. Restoration is understood as the recovery of a degraded habitat to initiate its succession to a reference habitat of greater biodiversity. The Committee asked how projects are prioritized and whether they address specific habitat type targets. The Committee discussed challenges and opportunities regarding project selection and prioritization.

- *Outcome:* the Committee gained a more robust understanding of restoration, which pertains to the BiodiverCity Strategic Plan's target to restore 20% of Calgary's open space.

Walk 21 Conference

Walk21 is the international organisation supporting and promoting walking. It hosts an annual international conference that seeks to encourage and support walking as a part of daily transport, recreation and health through effective policies, programmes and planning. Committee members Meaghan Brierley and Polly Knowlton Cockett presented, "Urban Biodiversity as Strategy for Walkability."

They presented that a plan for biodiversity is a plan for walkability. Habitat connectivity considers the movement of flora and fauna across landscapes; that scale is the human movement scale. The ability to move represents a level of physical health, and a broader ecological implication of biodiversity. As a core component of strong, cohesive, and inclusive communities, we need biodiversity to be personally and socially healthy. Urban biodiversity can thus be intimately connected to walkability.

- *Outcome:* municipalities dedicated to enhanced walking experiences should consider a biodiversity policy as contributing to "enriched" walkability, along with economic, social, health, and cultural benefits of a biodiverse walking experience. The Committee will investigate how to draw connections between The City's Pedestrian Strategy and its BiodiverCity Policy.

2018 Quarter 1

BiodiverCity Action Plan review

The BiodiverCity Action Program plan provides a structure for work planning to meet the commitment of The City of Calgary's BiodiverCity Strategic Plan. It outlines how The City is to achieve biodiversity conservation outcomes through the execution of biodiversity programs and initiatives. It establishes program targets, work plans, decision-making tools, and a method to monitor implementation progress using indicators. The Committee noted that targets are required for many programs of work and asked how integrated the work of the Riparian Action Program and the BiodiverCity Action Plan (BAP) are.

- *Outcome:* the Committee recognized an opportunity to align its work plan with the BAP program areas and did so for 2018.

Urban wildlife management report

The Committee was provided with the opportunity to review and provide final feedback on The City's *Urban Wildlife Management Matters, a 2017 City of Calgary Parks current state report*. The document provides a summary of The City's current management issues under provincial and federal wildlife legislation, which includes jurisdiction, management opportunities and engagement with stakeholders. Administration is anticipating sharing its wildlife management work with Council in 2019.

- *Outcome:* the Committee was supportive of the reports content and direction; it connected the management aspects of wildlife with habitat conservation and thus supported the broader efforts of biodiversity conservation.

Presentations to The Committee (throughout year)

*Ken Richardson, Creative Services, City of Calgary
Communications*

Ken provided an overview of Creative Services, their function and the services they provide. He discussed the tools The City uses to communicate to Calgarians. He helped the Committee identify barriers and how best to target communications.

- *Outcome:* provided guidance on how the Committee can be more strategic in its communications with Council, Administration and Calgarians.

*Suzanna Niederer, Environmental & Safety Management, City of Calgary
Climate Change*

Suzanna discussed climate trends for Calgary and provided an overview of emission reduction targets established by The City. She presented The City's climate risk profile and discussed the mitigation and adaptation work being done by The City to build a climate resilient city.

- *Outcome:* the Committee was able to have a better understanding of the connection between biodiversity and climate change as it relates to The City's work.

*Norma Posada, Water Resources, City of Calgary
Riparian Action Plan*

Norma discussed the 2013 riparian strategy now being implemented. Its goals are to protect water supply; use water wisely; keep rivers healthy; and to build resilience to flooding with the outcome of minimizing loss of riparian areas.

- *Outcome:* the Committee gained a better understanding of the interconnection of land use planning, education and outreach, and riparian restoration in support of biodiversity.

*George Roman, Water Resources, City of Calgary
Bioengineering Demonstration and Education Project*

George provide an overview of bioengineering, which incorporates plant materials in combination with natural and synthetic support materials for slope stabilization, erosion reduction, and vegetation establishment. The objective of the work is to stabilize subject banks, control erosion, create/restore fish habitat, link open spaces for wildlife corridor, and improve aesthetics.

- *Outcome:* demonstrated for the Committee innovative “green” infrastructure and The City’s commitment for public engagement to advance awareness and ecological literacy.

*John Slaney, Water Resources, City of Calgary
Fish Habitat Compensation Plan*

John provided a history of how Calgary developed on a floodplain and the resulting impact to fish habitat. With the loss of side channels, gravel mining in the watershed, and instream structures encourage sedimentation in Calgary’s rivers, as well as other impacts which leads to a less complex habitat for fish and thus impact to biodiversity. The City’s fish habitat compensation strategy aims to enable restoration along the river in support of spawning habitat for brown trout.

- *Outcome:* the Committee received valuable information on another City program aiming to restore biodiversity in Calgary.

Mia Rushton and Eric Moschopedis, Artists

Mia and Eric are an artist team from Calgary. They presented on how they use art to draw awareness to environmental changes brought about by humankind. Their work addresses urban and rural ecology, social relationships involving the environment, and place-based knowledge production.

- *Outcome:* the Committee was provided with insight how art is another vehicle to raise aware of biodiversity and how Calgarians can link their everyday lives to biodiversity.

*Julie Guimond, Calgary Parks, City of Calgary
Environmental Education*

Julie discussed her portfolio’s work in helping people understand and care for Calgary’s natural and cultural environment. Her portfolio of work includes programs; experiences; volunteering opportunities and partnerships, which aim to support awareness and knowledge of Calgary’s environments. For example, school-programs and day camps are aimed at students to provide the opportunity to slow down, look deeply and connect with their natural surroundings.

- *Outcome:* the Committee learned how nature-based cultural/historical programming underpin ecological literacy in support of biodiversity.

2018 Quarter 2

Calgary Youth Science Fair

The Calgary Youth Science Fair is an annual event held for Calgary students with research interests in science, technology, engineering and mathematics. Since 2017, The Committee has

been supporting the event through Biodiversity Awards for three age categories for projects related to ecological literacy, resilience, or collaboration. The three recipients were:

Award type	Student name	Presentation title
Senior	Sophia Lin	Extracting Potassium from Seawater for Fertilizer
Intermediate	Jaiden Sahota	Neem Oil: A Natural Bug Repellent
Junior/Elementary	Sonia Khromova	The Wood Wide Web

- *Outcome:* the Committee continued to advance its mandate of increasing biodiversity awareness.

Review The Committee's Terms of Reference

The Committee was invited to review its Terms of Reference (ToR) by the Governance and Policy Coordinator of the City Clerk's Office.

- *Outcome:* after reviewing and discussing the ToR, the Committee decided they are appropriate but will identify issues as they arise and propose recommended changes as needed.

Communication strategy; councillor meetings

The committee requested and held meetings with members of Council. The intent of the meetings was to gain insight on councillor's and their constituent's needs for biodiversity. The objective was for the Committee to better understand what is required to support biodiversity awareness and conservation to inform future actions in the Committee's work plan.

Seven meetings were held; two were cancelled and four requests were not responded to. The Committee will be following-up with those Councillor offices in 2019. One councillor confirmed unavailability for a meeting.

- *Outcome:* The Committee recognised that it should continue a dialogue with members to Council to best understand how it could assist in building awareness and understanding some of the issues pertaining to biodiversity. Councillors provided key actions for Committee members to consider, which informed future work.

Sites visits

Since its inception, The Committee has been visiting Calgary's representative habitats:

- Confederation Creek Valley, guided by Dr. Hlimi
 - Bearspaw Natural soil survey, with Dr. Swallow
 - Inglewood Bird Sanctuary, as part of work planning
- *Outcome:* valuable opportunities for members to increase awareness of the diversity of Calgary's ecosystems.

2018 Quarter 3

Integrated Pest Management Plan review

Moved to Q4

Calgary Foundation Vital Signs report

The Calgary Foundation produces an annual Vital Signs report on the qualities of life important to Calgarians. The Committee worked with the Foundation to add a biodiversity measure to this

report. As a component of the Environment section, a question on biodiversity was added: Are you familiar with the term “biodiversity.” The result were:

- 67% were familiar with the term (25% very familiar; 42% familiar)
- 33% have never heard of or are unsure of the term (24% head of but unsure what it is; 9% never heard of it)

The survey identified there could be a language barrier to understanding the term biodiversity. Additionally, three quarters (72%) of Calgarians under 35 are familiar with the term versus 63% of Calgarians that are 35 years or older. 85% of students are familiar with the term biodiversity.

2018 Quarter 4

Committee recruitment

In September, The Committee received applications for candidates as part of the annual recruitment campaign for committees of Council. Five members of the public had their terms expiring in October 2018

- *Outcome:* The five members whose membership was expiring, were renewed. One member who had stepped down was replaced as part of the recruitment campaign. One Administration member was replaced with a member representing the same business unit. At the time of authoring this report, two other Administration members are stepping down with the aim to be replaced by representatives in Utilities and Environmental Protection and Planning and Development.

City policies documents review (throughout year)

Integrated Pest Management Plan

The current *Integrated Pest Management Plan* (1998) sets out the principles that govern pest management decision making throughout the corporation of The City of Calgary. The plan and policy are currently being revised by Administration. At the time of preparing this report, The Committee had not begun its review of the Integrated Pest Management plan revision.

Soils Handling Recommendations: best practices to improve restoration work document

The *Soils Handling* document provides soil handling recommendations to increase the effectiveness of restoration plans in support of the *Biodiversity Policy's* requirement to restore 20% of Calgary's open space.

- *Outcome:* Committee member Dr. Mathew Swallow is a soils scientist and provided expert feedback on the document.

20% restoration target (throughout year)

One of the three performance measures identified in the BiodiverCity Strategic Plan is to restore 20 percent of Calgary's current open space to increase biodiversity. Habitat restoration is a type of land management activity intending to recover a degraded habitat to initiate or accelerate its succession towards a habitat with increased biodiversity such as replacing turf grass with native grasses and wildflowers. Restoration is considered cost-effective recognizing that the initial cost to restore land will be recouped via decreased ongoing management costs.

- *Outcome:* the Committee sees great importance in this target and desires to ensure The City provides adequate budget and resourcing for it to succeed.