

Attachments

Attachment A: Summary of initiatives, projects or work completed or ongoing in the last year.

Ongoing work

Expert advice

The BiodiverCity Advisory Committee (Committee) continues to provide review and advice to Calgary City Administration to advance Council-approved Our BiodiverCity, Calgary's 10-year Biodiversity Strategic Plan (referred to below as BiodiverCity Strategic Plan). The working document, BiodiverCity Action Plan, provides a structure for Calgary to meet the biodiversity commitments in the BiodiverCity Strategic Plan. The Committee supports The City with moving forward each of the four biodiversity principles outlined in the BiodiverCity Strategic Plan: Ecological Literacy, Ecological Resilience, Collaboration, and Integration. The Committee has also encouraged inclusion of targets, performance measures, indicators and key actions in the BiodiverCity Action Plan that can contribute to sustaining Calgary's biodiversity.

A key area of work that the Committee remains keenly engaged in is The City's restoration target of 20 percent of Calgary's open space by 2025, as outlined in the BiodiverCity Strategic Plan. 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. The Committee is concerned that City Administration will be unable to meet Calgary's BiodiverCity Strategic Plan 2025 target for habitat restoration (see Attachment C).

The Committee has also raised concern about on-going losses of Environmentally Sensitive Areas (ESAs) leading to a decline in biodiversity (see Attachment C). ESAs are key natural components of the regional landscape, providing essential ecosystem functions and services. These include flood mitigation, drinking water supply, maintenance of regional biodiversity, preservation and connectivity of unique habitats and landscapes, and provision of culturally and economically valued resources and opportunities (CMRB Environmentally Sensitive Areas Background Report, 2019).

Standing Policy Committee on Community and Protective Services reports

The Committee was established by Council in October 2015. As guided by its Terms of Reference, it advances the commitments and procedures identified within the Council-adopted Biodiversity Policy (CSPS037). The Committee presented its first annual progress report in May 2016. Since that time, The Committee continues to pursue three categories of work: engaging stakeholders, communications and reviewing City policies related to biodiversity. The outcome of this work has been to advance biodiversity awareness within the Corporation and to support Calgarians fostering more resilient, biologically diverse communities.

March 2020 – March 2021 Work

Calgary Youth Science Fair

Since 2017, the Committee has attended and supported the Calgary Youth Science Fair event through judging and presentation of awards for projects in three age classes that align with Calgary's BiodiverCity Strategic Plan principles of ecological literacy, ecological resilience and collaboration.

The 2020 edition of the Calgary Youth Science Fair was cancelled due to COVID-19. The BAC will continue to provide support for the 2021 edition, which will be held virtually.

City Administration Updates on City Biodiversity Initiatives

The Committee received several updates and presentations from City staff working on biodiversity related projects and programs and provided feedback on these initiatives. Included in City staff updates were:

- Value Proposition of Biodiversity (Timothy Walls and Carol Stefan, Urban Conservation).
- Biodiversity Action Plan – implementation risks (Chris Manderson, Urban Conservation)
- Habitat Connectivity (Heather Rudd and Lynette Hiebert, Urban Conservation)
- Habitat Restoration Program Update (Timothy Walls, Urban Conservation)
- Environmental Strategy and Engagement (Jen Silverthorn, Environmental Safety Management)
- ESA Loss (Heather Rudd and Dave Hayman, Urban Conservation)

BiodiverCity Strategic Plan – Concordance with BiodiverCity Action Plan - Five Year Review

Between Q4 2020 and Q1 2021 the Committee compared the Biodiversity Action Plan content and implementation with the Commitments, Procedures and Targets of the BiodiverCity Strategic Plan with input from City Administration representatives on the BAC. A survey of the BAC was conducted to identify priority aspects of the BiodiverCity Strategic Plan after five years of BAC operation. The review generally indicated that either the Biodiversity Action Plan (BAP) concurs with the Biodiversity Strategy Plan or other city initiatives are addressing the Strategy either directly or indirectly, or are in planning or progress. For some priority commitments and procedures that are not addressed in the BAP, given that some of them are being implemented by other City Business Unit initiatives, updates to the BAP are recommended. Meaningful biodiversity targets, performance measures, and indicators need further development as mentioned in Attachment C.

Committee Recruitment

The Committee recruited two new public members to replace those leaving the Committee. The Committee also has a new Administrative Contact.

Attachment B: 2021 Work Plan

Project / Initiative / Activity	Biodiversity Program Area	Biodiversity Program	Start	End
Develop work plan for 2021	NA	NA	Q1	Q1
Support the Calgary Youth Science Fair; biodiversity awards	Ecological Literacy	Stewardship	Q1	Q2
Calgary Biodiversity Day proclamation	Ecological Literacy	Public Awareness	Q1	Q2
Annual report to SPC CPS (3 May 2021)	Ecological Literacy	Staff Awareness	Q1	Q2
Review on an ad hoc basis applicable City of Calgary policies and strategies	(all)	(all)	Q1	Q4
Review and provide comment on the Environmental Strategy	Ecological Literacy	Public Awareness	Q1	Q3
Support and participate in the application process for Calgary to become a Bird Friendly City	Ecological Literacy	Public Awareness, Stewardship	Q1	Q3
Review the BiodiverCity Action Plan - 5 yr review table - Conservation subcommittee meeting (input review) - Ecoliteracy subcommittee meeting (input review)	(all)	(all)	Q4 2020	Q1
Provide comment to Council on Environmentally Significant Area Loss	Ecological Resilience	Public Awareness	Q1	Q2
Provide comment to Council on Habitat Restoration Program	Ecological Resilience	Public Awareness	Q1	Q2
Provide comment to Council on the Habitat Condition Rating analysis of Calgary Parks	Ecological Resilience	Public Awareness	Q1	Q2
City Subject Matter Expert presentations to BAC (e.g. wetland habitat restoration, ESA loss)	Ecological Literacy	Public Awareness	Q1	Q4
Clarify opportunities for strategic input on planning matters	(all)	(all)	Q1	Q4
Review Guidebook for Great Communities	(all)	(all)	Q1	Q2
Onboard new BAC members	NA	NA	Q1	Q4

Attachment C: Additional information you would like to share with Council

The Committee provides this additional information based on a recent review of the City Parks 2020 Habitat Restoration Program Update and a March 2021 presentation on Environmentally Significant Areas Loss, and is informed by the BiodiverCity Strategic Plan – Concordance with BiodiverCity Action Plan - Five Year Review that was conducted by the Committee from Q4 2020 – Q1 2021.

Restoration

- Restoration often occurs opportunistically on lands managed by Parks, Transportation, and Water Services
- Calgary Parks has begun assessing Habitat Condition Rating within City Parks which will identify and prioritize parks in need of restoration in the future
- Habitat being restored may not be in the context of priority habitats for biodiversity
- Currently the city is not on track to meet the 20% target of restoration of open spaces by 2025 (832 ha)
- The city is on track to meet about half of this target but would need significant additional capital funds as well as additional staffing to complete the work based upon the amount of area that still needs to be restored or is in progress, and the average cost for restoration (source: Urban Conservation)

Considerations:

- Greater investment in Parks to meet 2025 restoration target
- Build a cross-corporate restoration program
- Set either an achievable restoration target and/or extend target deadline

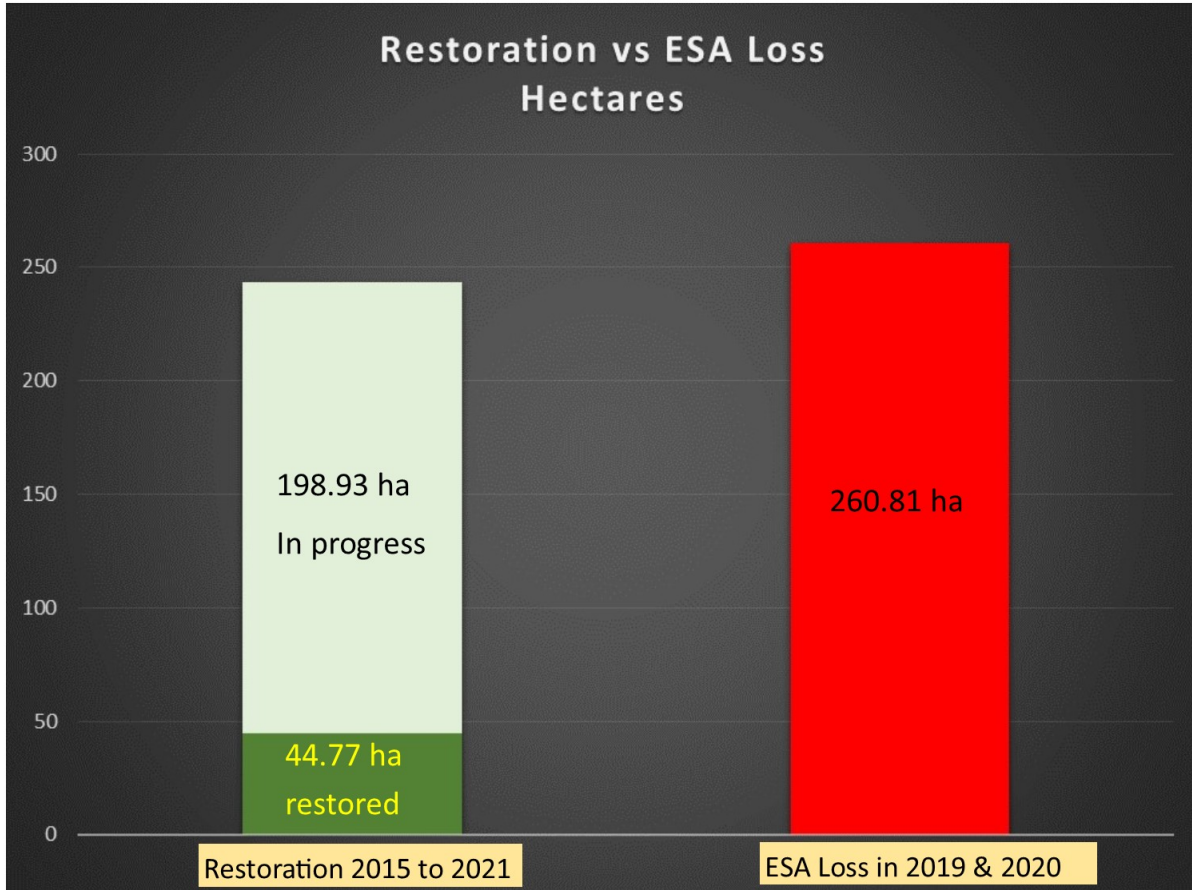


Figure 1. Environmentally Sensitive Area (ESA) Lost in 2 years compared to amount restored or restoration in progress over last 5 years

Although restoration can contribute to biodiversity, it is expensive (on average \$35,000/ha to restore) and the area restored is likely not equivalent habitat for biodiversity to that found in environmentally sensitive areas. Ultimately, it is far less expensive to protect land than it is to restore it.

Environmentally Sensitive Area (ESA) Loss

In 2019, the City of Calgary lost about 58% of ESA that has been identified in Biophysical Impact Assessments. This is a net loss when the loss is compared to the gains made with restoration. Ideally, all ESA should be protected but this is not always possible due to land use needs for development.

There are many policies and guidelines intended to preserve biodiversity within the City of Calgary but few mechanisms to achieve these goals:

- Municipal Reserve
- Environmental Reserve Easement to prevent pollution or ensure public access (mostly undevelopable land)
- Conservation reserve (buy ESA at market rate)
- Naturalized Municipal Reserve (restoration)

Considerations:

- Use or develop additional mechanisms or utilize current mechanisms to a greater extent to preserve ESA (e.g. conservation reserve, environmental reserve easements, land trusts, ecological gifts, Claim by the Crown)
- Prioritize preserving ESA that represents particularly biodiverse or rare ecosystems and habitats within the City of Calgary and prioritize areas that have been identified as important in the Ecological Network such as important connectivity corridors, shelterbelts and steppingstones between core areas.
- Develop a comprehensive spatial map of known and potential ESAs and existing rare habitats
- Track the categories of ESA and habitats that are being lost
- Set targets for protecting ESA and priority habitats (not per development but a city-wide target)

Underway

- On-going monitoring of ESA loss
- Updating ESA criteria to make ESA designation more robust

Loss of Urban Forest

While the BAC supports densification within the city rather than developing undeveloped lands, the city is losing significant areas of the urban forest annually through redevelopment. This leads to a loss of biodiversity and climate resiliency.

- Recommend that Council establish a biodiversity/climate resiliency fund that is funded through a fee on all redevelopment applications that can be used for targeted conservation and restoration

Additional Recommendations to Council in support of ecoliteracy

- Recommend supporting the Bird Friendly City Designation (<https://naturecanada.ca/bfc/>)
- Establish City of Calgary Biodiversity Day annually on May 22nd in alignment with International Day for Biological Diversity (<https://www.cbd.int/idb/>)
- Support the City Nature Challenge Calgary a competition between cities around the world which encourages citizens to document the biodiversity within their city (<https://citynatureyyc.ca/>)
- Update City of Calgary website to communicate biodiversity messaging to citizens and to highlight the work and recommendations of the BAC