

### Environment and Climate Review

Edmonton's River Valley is a valued asset for Edmontonians. Its ongoing health is important for the local and regional ecosystem, as well as local air and water quality.

Ongoing, stable funding is required to deliver on the items outlined in Attachment 2 - River Valley Planning Modernization Action Plan, including monitoring and assessment of impacts of development in the River Valley. A strategic approach to these activities is needed to support the ecological health of the system as a whole.

#### Environmental Benefits of The River Valley

The River Valley is an important natural asset for Edmonton and the surrounding area. Among its many benefits, it:

- provides habitat and an ecological corridor for a variety of species;
- improves air quality by removing atmospheric pollutants;
- mitigates climate change by capturing greenhouse gases from the atmosphere;
- mitigates urban heat island effect by cooling the surrounding area; and
- acts as a natural stormwater management system by slowing runoff and filtering pollutants before they enter the North Saskatchewan River.

The Ribbon of Green Strategic Plan considers the many potential and desired uses of the River Valley and gives guidance to balance environmental protection with access for Indigenous uses, health, recreation and some level of commercial activity. It defines the three land management classifications that will direct future levels of development, land uses and activities within the system.

The Ribbon of Green also provides appropriate guidance for assessing potential environment and climate impacts of new development in the River Valley by protecting sensitive areas, minimizing development in the River Valley, aligning developments to Policy C627 (Climate Resilience Policy) and how to plan and assess site-specific locations for future proposed developments.

#### Climate Change Impacts and Environmental Considerations

As a result of climate change, Edmonton is expected to experience warmer overall temperatures, more drought conditions, increased wildfire risk, as well as more severe flooding events.<sup>1</sup> These changing conditions could impact the

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<sup>1</sup> Understanding Edmonton's Changing Climate 2025: Observed Climate Trends

health of the trees and the River Valley ecosystem. The Ribbon of Green Strategic Plan considers both climate change and adaptation measures that align with the City's strategies and plans.<sup>2,3,4,5</sup> This includes:

- A commitment to ensure that all new or renovated City-owned, leased and/or funded buildings demonstrate sustainable design, construction and operations practices that align with C627.
- Accommodation for multi-modal and active transportation in appropriate areas of the trail network.
- Addressing climate change mitigation and adaptation in environmental assessment requirements (guidelines forthcoming).
- Prioritization of protection and restoration of natural ecosystems in the River Valley as part of spatial direction and system-wide policies (which also supports carbon sequestration).
- Promotion of protection and restoration of riparian buffers and setbacks to support flood mitigation (which also supports carbon sequestration).
- Addressing the need for long-term monitoring of the ecological health of the River Valley to support evidence-based decision-making and adaptive management.

### Additional Considerations

Beyond the actions outlined in the River Valley Planning Modernization Action Plan, there could be additional consideration in the following areas.

- As the Ribbon of Green is implemented, including through delivery of RVPM Action Plan projects, consider updated information about how Edmonton's changing climate will impact the River Valley and whether any additional actions could or should be proactively taken to better protect the health of the ecosystem and support climate action.

Edmonton's changing climate will likely mean higher wildfire risk at the wildland-urban interface, higher flood levels, as well as changing species of flora, fauna and pests in the local ecosystem. These changing conditions are likely to impact the River Valley.

- Due to the interconnectedness of the North Saskatchewan River watershed, consideration could be given to establishing and maintaining communication and coordination with relevant partners and other

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<sup>2</sup> Climate Resilient Edmonton: Adaptation Strategy and Action Plan

<sup>3</sup> Edmonton's Community Energy Transition Strategy and Action Plan

<sup>4</sup> Climate Resilience Policy C627

<sup>5</sup> Climate Resilience Planning and Development Action Plan

## Attachment 3

municipalities regarding the ecosystem health, strategies and plans for the River Valley so that learnings can be shared and actions can potentially be coordinated.