

Natural Systems

Calgary's river valleys, creeks and other natural systems shape our city. This chapter guides the protection of the ecological network while integrating nature throughout the city.

Natural Systems matter because they:

- Integrate more nature into our park system, both within the ecological network and throughout the city, for equitable access to nature for every Calgarian
- Support a healthy river and creek system
- Encourage naturalization and connection through development
- Protect water quality, conserve water and ensure long-term water security
- Grow the urban forest, improve drought resilience, protect important landscape features
- Connect Calgary's ecological network to regional ecological networks for a protected and connected ecological network

What might this look like for Calgarians?

Ecosystem health is supported and nature is integrated within our communities.



Private landowners and developers are encouraged to integrate nature into their properties.



Rivers are healthy and thriving, with a high water quality.



We heard Calgarians care about..

Access to the outdoors as a reason they have chosen to live in the city.

Highly valuing the city's rivers, natural areas, parks and recreation.

Putting more emphasis on preserving natural areas and enhancing parks.

Providing neighbourhoods with ample parks and natural areas.

Connecting nature within residential areas.

Protecting the health and functioning of wetlands.



Natural systems:

A natural system is a self-sustaining and interconnected network of physical and biological components and in an urban setting. Natural systems are often a blend of human altered nature and buildings, mobility systems, and utility networks, including natural, enhanced and engineered green elements.

Ecological network:

An ecological network is a network of ecological components (natural habitats, corridors and buffer zones) that provide the physical conditions necessary for ecosystems and species populations to survive in a human-dominated landscape.

What's included in Natural Systems?

The Calgary Plan combines existing direction for the *Municipal Development Plan* (MDP) and the *Calgary Transportation Plan* (CTP), and aligns with other City documents such as the *Connect: Parks Plan*.

-  No/minimal new direction
-  Some new direction
-  All new direction

What are the direction highlights?	What's new to the Calgary Plan?
Ecological Network	
Environmentally Significant Areas: Protect environmentally significant areas. Limit fragmentation and restore damaged areas. Provide appropriate public access that does not harm ecological health.	 The newly mapped ecological network has specific rules to protect important areas and improve connections between them, including that nearby lands should prioritize less intense uses with buffers and smart urban design.
Rivers & Creeks: Prioritize the health of our rivers and creeks. Monitor waterbody health. Avoid land uses that negatively impact waterbodies. Enable natural processes such as erosion and river movement when safe. Provide appropriate public access.	 The plan continues to prioritize the protection of rivers and creeks.  The plan now includes policies supporting natural flow and flooding of waterways (where it is safe) within these areas.
Public Lands: On publicly-owned (including parks and open spaces) in the ecological network: <ul style="list-style-type: none"> Protect and restore environmentally significant areas Naturalize areas Increase landscaping Integrate nature within the mobility network 	 This plan builds on the direction in the existing MDP to establish and maintain ecological networks, and provides stronger direction towards this objective. It goes beyond protection of natural spaces, looking to restore damaged areas within Calgary's ecological network.
Private Lands: Encourage private land to support a healthy and connected ecological network with natural landscaping, buffers and other opportunities.	 The plan encourages private lands to support more ecological network enhancement, including tree protection.
Citywide Natural Systems	
Water: Maintain water security. Protect our reservoirs. Support healthy riparian areas (natural areas along the river). Work regionally on source water protection and promote water conservation across land uses.	 The plan continues to protect our water sources. It now focuses more on safeguarding areas that provide drinking water, including reservoirs, rivers and creeks. The plan places additional emphasis on water conservation.
Land: Protect natural habitats and landforms outside of the ecological network. Incentivize restoration. Encourage drought-tolerant, native and climate adaptive landscaping. Manage stormwater through absorbent landscaping. Ensure slope stability.	 The plan continues to recognize the value of natural assets. It is largely consistent with the existing MDP, with simplified and modernized language.
Indigenous Stewardship: Acknowledge, collaborate and plan with Indigenous Nations and communities on natural systems and significant sites.	 This is new direction, but provides policy for collaboration on stewardship that The City is already engaging in. It puts into policy the incorporation of Indigenous and non-Indigenous perspectives on stewardship and management of the land.
Wetlands: Protect naturally occurring wetlands. Reduce barriers to wetland restoration. Reconstruct wetlands to help with stormwater management. Avoid the modification of wetlands.	 This plan builds on the existing wetland protection policies in the existing MDP, with a stronger emphasis on protecting naturally occurring wetlands and avoiding modification of wetlands.
Urban Forest: Provide, protect and increase our urban forest. Increase the diversity of tree species. Prioritize tree-planting on City-owned land.	 The plan continues to recognize the value of a healthy urban forest. It is largely consistent with the existing MDP, with simplified and modernized language.
Natural Areas: Protect City-owned natural areas as part of the parks system. Avoid modification of those natural areas.	 The plan now highlights the importance of natural areas in safeguarding natural systems. They work alongside the overarching parks system policies outlined in General City Policies (Chapter 4).

How is this direction connected to other City Building plans?

The *Zoning Bylaw* and *Street Manual* are tools to implement the direction of the Calgary Plan through rules for new buildings and guidelines for street design.

The **Zoning Bylaw** can include requirements for:

Urban Form: Allowing more homes and businesses to be built in existing communities helps to protect natural areas (such as wetlands, grasslands and farmland) on the edges of the city.

Landscaping & Trees: Retaining existing trees on sites, requiring new trees and shrubs to be planted with new development, and creating healthy conditions for new plantings.

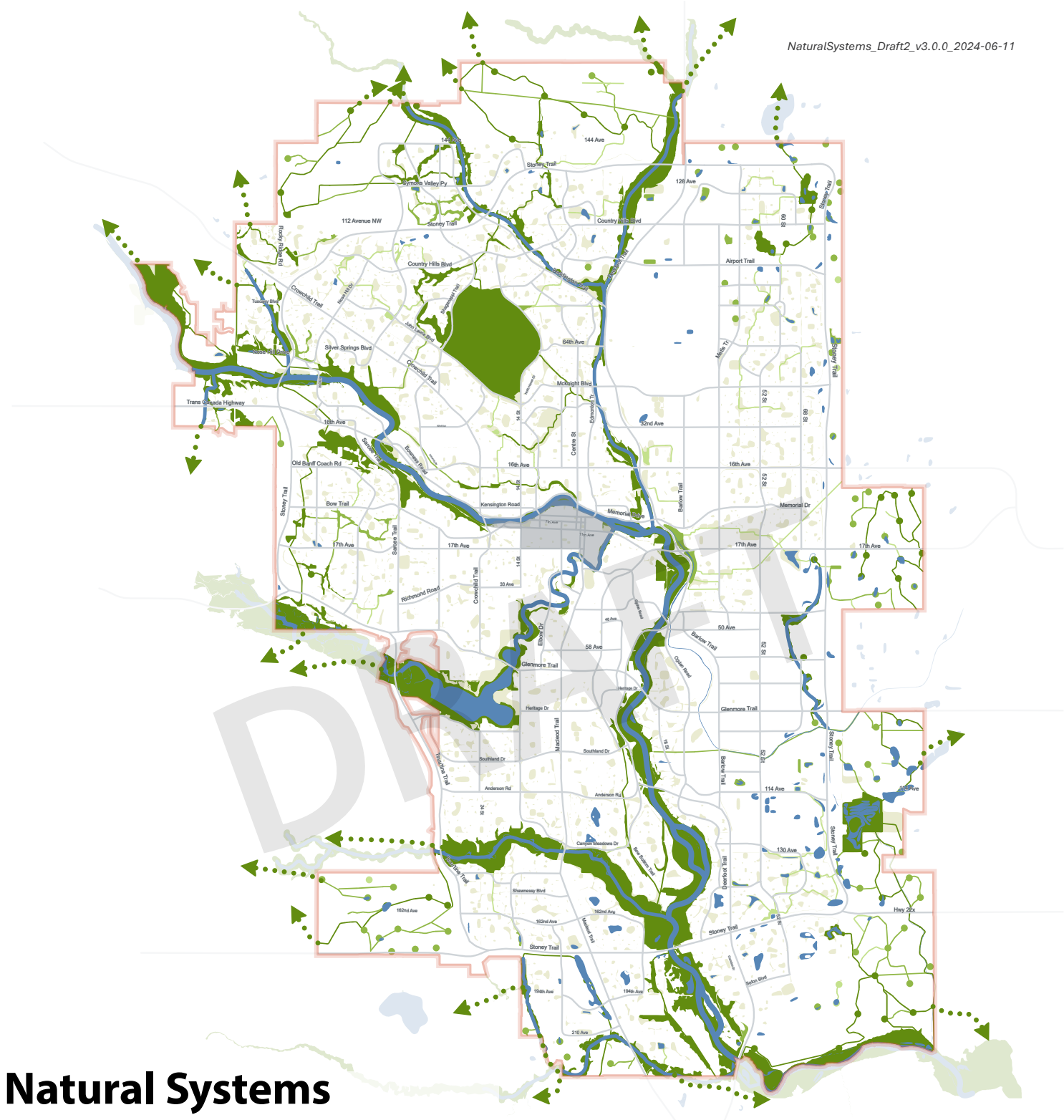
Plant Species: Encouraging new developments to plant biodiverse and low-water plant species.

Parks: Placing limits on development in zones where parks and natural areas are the intended use.

The **Street Manual** can include guidelines for:

Enhanced Naturalized Corridors: Incorporating enhanced natural systems within the street rights-of-way (e.g., more native plantings, street trees).

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Natural Systems

Ecological Network

- Major
- Supporting
- Local

Regional Connections

- Major

- Parks
- Greater Downtown
- Water

