

2024-2034

GREEN ENVIRONMENT

10-YEAR LONG-RANGE STRATEGY







Land Acknowledgement

We respectfully acknowledge that we are on Treaty 6 territory, traditional lands of First Nations and Métis peoples. As treaty People, Indigenous and non-Indigenous, we share the responsibility for stewardship of this beautiful land.



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Executive Summary



The Green Environment Strategy (GES) is a comprehensive plan developed by the City of St. Albert to guide operational activities over the next decade. This strategy aligns with the City's Community Vision and Pillars of Sustainability, the Municipal Development Plan (Flourish: Growing to 100K), City directional plans and the Services and Service Levels Inventory. The GES was developed through a rigorous methodology, analyzing insights from community vision documents, environmental factors, program and service objectives and engaging with the community.

The foundation of the GES lies in the green environment goal of the Municipal Development Plan (MDP), encompassing principles related to natural features, biodiversity, water quality and the urban forest. Performance measures are outlined for each principle, serving as benchmarks for progress monitoring. Program and service objectives further guide the strategy's implementation, focusing on community involvement, sustainable design and regulatory measures.



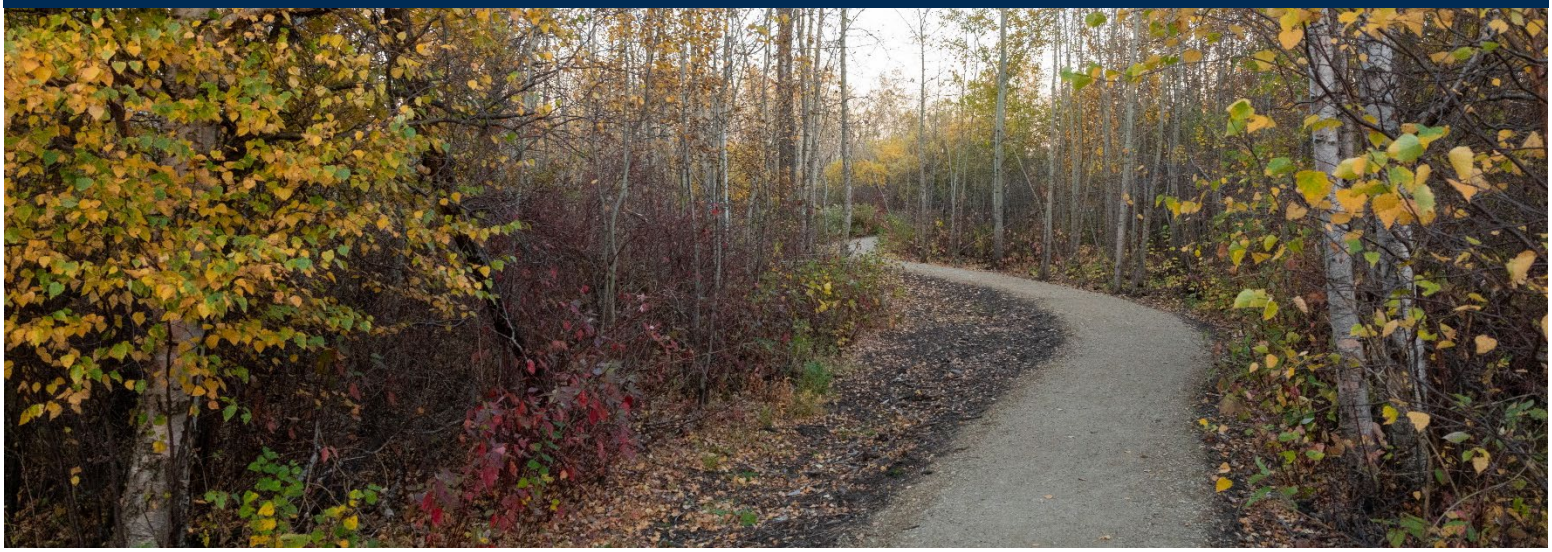
The following four strategic directions were formulated to provide the City with a clear roadmap towards achieving the green environment goal.

	Watershed - Protect wetlands and riparian areas and improve stormwater quality to contribute to the health of the watershed.
	Biodiversity - Monitor, protect and enhance natural features, parks and open spaces to maintain, sustain and enrich biodiversity.
	Stewardship - Develop, maintain and enhance community environmental programs to foster a sense of stewardship of natural features, parks and open spaces.
	Governance - Develop and follow regulatory documentation for the protection of the environment. This could include regulations, guidelines, standards, policies and processes.

To ensure the GES's longevity, an implementation plan with planned cycles has been established. Updates to the GES will occur every five years, and the implementation plan will be refreshed every two years. Regular monitoring and reporting of progress will be conducted to track the GES' achievements and impacts.



Introduction



BACKGROUND

Taking care of our environment is critical to the success and growth of our city. The purpose of the GES is to provide direction on operational activities the City of St. Albert will undertake over the next 10 years that align with the:

- Community Vision and Pillars of Sustainability
- Vision of the City's Municipal Development Plan (*Flourish: Growing to 100K*)
- City of St. Albert Services and Service Levels Inventory
- City directional plans (i.e., Council Strategic Plan, Corporate Business Plan)

METHOLODOGY

In designing the GES, City Administration sought to answer two key questions:

- **Setting the Course:** What strategic directions are necessary over the next 10 years to achieve our long-term goals for the City of St. Albert?
- **Implementation:** What initiatives should be undertaken in the next five years to uphold and enhance progress towards our long-term goals for the City of St. Albert?

To find answers, City Administration analyzed insights from *Flourish: Growing to 100K*, explored environmental factors, reviewed program and service objectives and engaged with the community to gather diverse perspectives. The green environment goal and principles outlined in *Flourish* depict the community's envisioned state in 30 years. A scan of environmental factors provided a snapshot of the current situation. Program and service objectives guided the City in delivering services to shape that future. Public engagement illuminated current community priorities and

those for the upcoming decade. These intersecting elements converged to define strategic directions.

With strategic directions outlined, an implementation plan was devised to guide activities toward long-term goals. The green environment goal, drawn from the Municipal Development Plan (MDP), served as the central framework for shaping this comprehensive long-term strategy. While the MDP naturally focuses on the City's physical aspects like land use and planning districts, a city is more than its physical form – it is a thriving community with people and activities. To encompass this aspect, program and service objectives were established to provide ongoing guidance for operational activities supporting the green environment goal.

Furthermore, the St. Albert community played a pivotal role, providing additional insights into community priorities and where the City should focus efforts to advance the green environment goal. The synergy at the intersection of these dimensions provides the motivation, capacity and communal backing needed to drive progress and effect change.

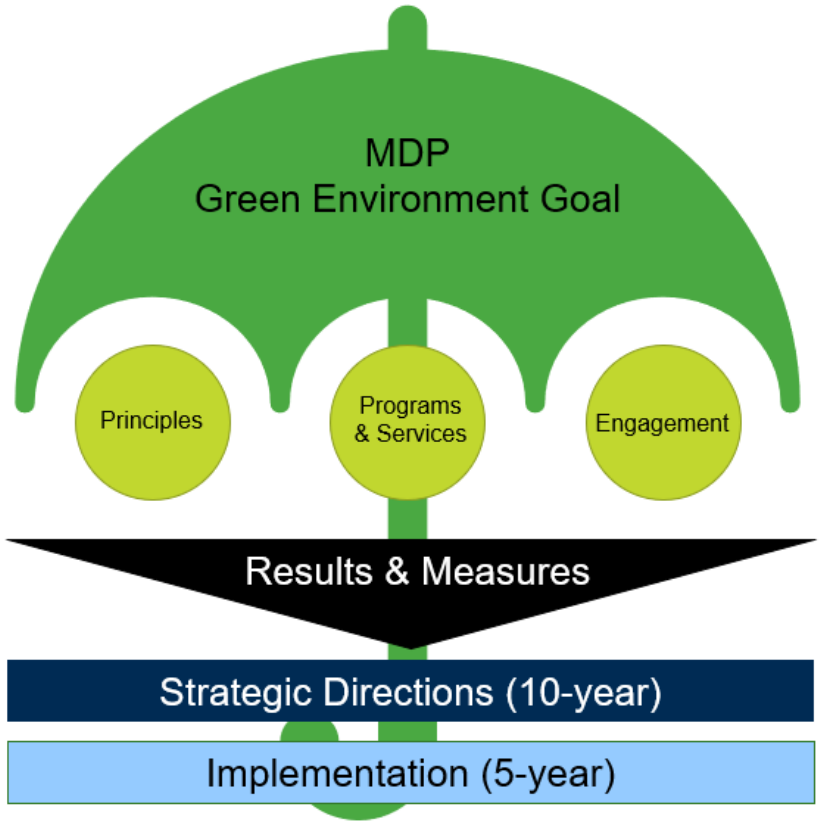


Figure 1: City of St. Albert's Approach to Long-range Planning for the Green Environment Strategy

DOCUMENT OVERVIEW

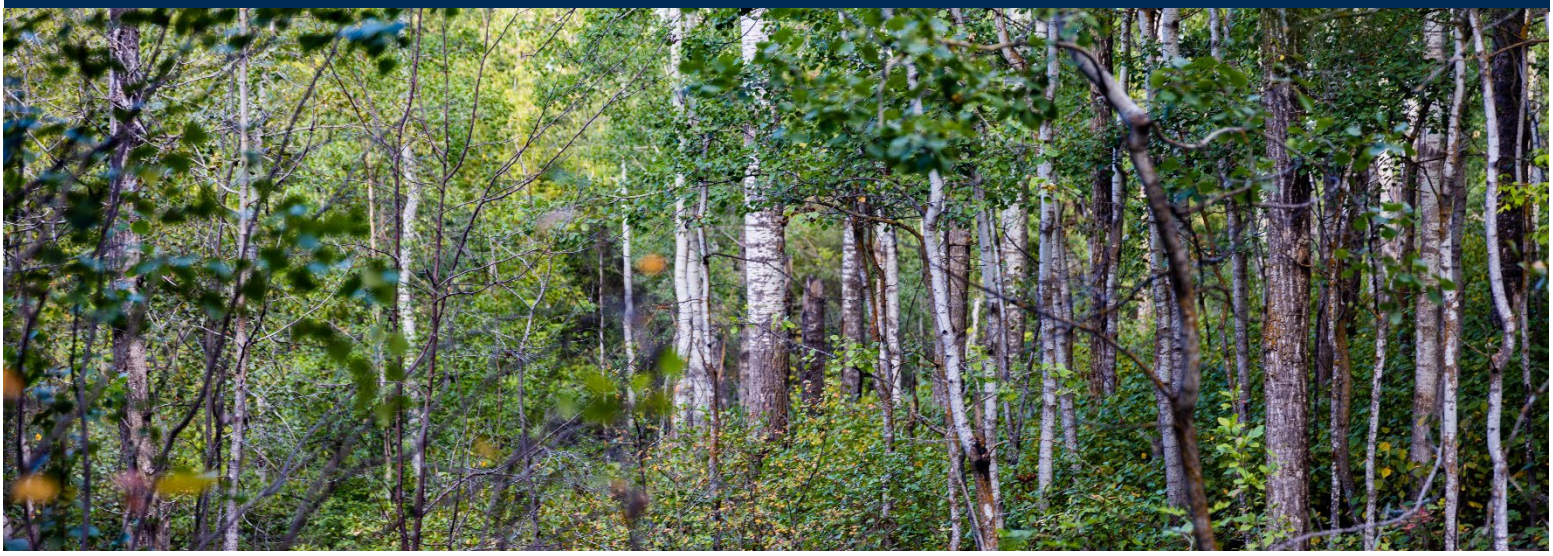
This document presents the overall GES through the following sections:

- **Our Green Environment Today** provides a summary of the context within which the GES was developed.
- **Direction from *Flourish*** provides an overview of the green environment goal as presented in the MDP and presents results of achievement and performance measures to monitor and track progress.
- **Strategic Directions & Implementation** presents the strategic directions developed through the planning process and the approach to implementation and on-going monitoring and reporting.
- **Appendices** provide detailed supplementary information.

Appendices at the end of the document contain the following supplemental information to deepen the understanding and integrations of the presented GES.

- **Appendix A: Environmental Scan Summary**: provides a summary of the current context and how it impacted the development of the GES.
- **Appendix B: Engagement Summary**: provides a summary of what was heard through the engagement process conducted to inform the GES.
- **Appendix C: Program and Service Alignment**: demonstrates which City programs and services contribute to or are impacted by the green environment principles and program and service objectives. These services are cross-referenced with the Services and Service Levels Inventory.
- **Appendix D**: **Implementation Plan:** a five-year implementation plan for each strategic direction.
- **Appendix E**: **Glossary of Terms**: Summary of terms and definitions used throughout the document.

Our Green Environment Today



The City's natural (green) environment is one of the most important factors contributing to the overall quality of life and well-being of this community. The preservation of trees, parks and natural areas, including forested areas and bodies of water, contribute to the variety and range of plant and animal life in St. Albert's unique ecosystem. As a Tree City of the World (2021 and 2022) with an inventory of over 65,000 trees, the community is committed to the preservation of our urban forest. This biodiversity maintains balance and supports life, reinforcing the importance of maintaining a healthy ecological network.

As a Tree City of the World (2021 and 2022), St. Albert has an inventory of over 65,000 trees

As a predominantly urban-form municipality within the Edmonton Metropolitan Region (EMR), invasive species have the potential to have a significant impact on biodiversity within the region. The EMR has identified more than 70 invasive species, including plants, animals, insects and diseases, as significant concerns for local communities. Invasive species out-compete native species for food and space, have few or no native predators, alter or destroy natural ecosystems, disrupt food sources and introduce parasites and disease. The City's Integrated Pest Management (IPM) Program outlines monitoring programs for pest populations for the prevention and management of invasive species in St. Albert. As weather patterns change in the region due to climate change, it is anticipated that updates to the IPM Program will be key to preventing the introduction of new invasive species.

The Sturgeon River corridor is the foundation of St. Albert's ecological network. The City monitors the water quality at six different sites along the Sturgeon River within our city boundary four times per year. The annual health of the river is communicated through the water quality index. The Sturgeon River has not experienced drastic changes to background nutrient levels and chloride and *E. coli* have consistently been within the Provincial guidelines. The water quality index is consistently within the parameters for a healthy river.

The Sturgeon River and its entire watershed is impacted by the built features on the land. Water in the stormwater system is not treated; and flows directly into the river. Oil and grit interceptors have been installed at priority stormwater outfalls to filter runoff and mitigate oils and sediment getting to the river. In addition, activities performed on the land, such as cosmetic herbicide and fertilizer use, can have a large effect on the water quality of the river. Other pressures on the river include drought conditions, water withdrawals for commercial use, nutrient and pesticide inputs from agriculture, cattle and homeowner use, continued wetland loss and riparian area degradation.

The preservation of St. Albert's natural environment is a closely held community value. The regard for the natural environment has become more acute, as such, balancing between conservation and public use of the City's natural features is crucial. St. Albert residents want to access the natural environment but also respect and steward it. The balance between conservation and use becomes even more essential as we grow and make plans to build out the 2,180 acres of land annexed from Sturgeon County in 2022.

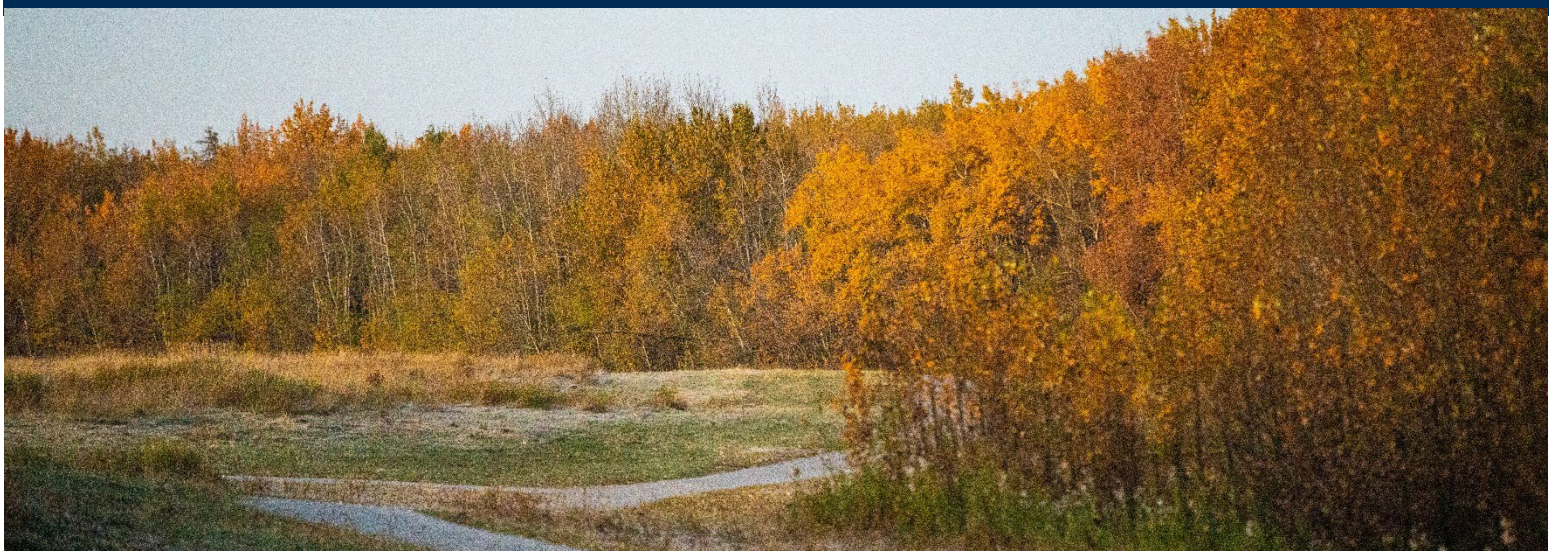
The City of St. Albert can only be successful in protecting and conserving the natural environment with the participation of the community. St. Albert has a high rate of engagement and community participation in the various environmental programs and education opportunities it offers. Stewardship of the environment continues at a high rate each year as 1,000 or more residents participate in environmental activities and events.

Considering the green environment today, the community and the City of St. Albert have an obligation to plan for the future. This ensures the current and future state of our natural living systems are considered in the City's long-range plans. As such, the strategic directions and tactics outlined in this document intend to ensure we are working to protect and conserve our natural (green) environment.

The City of St. Albert can only be successful in protecting and conserving the natural environment with the participation of the community.



Direction from Flourish

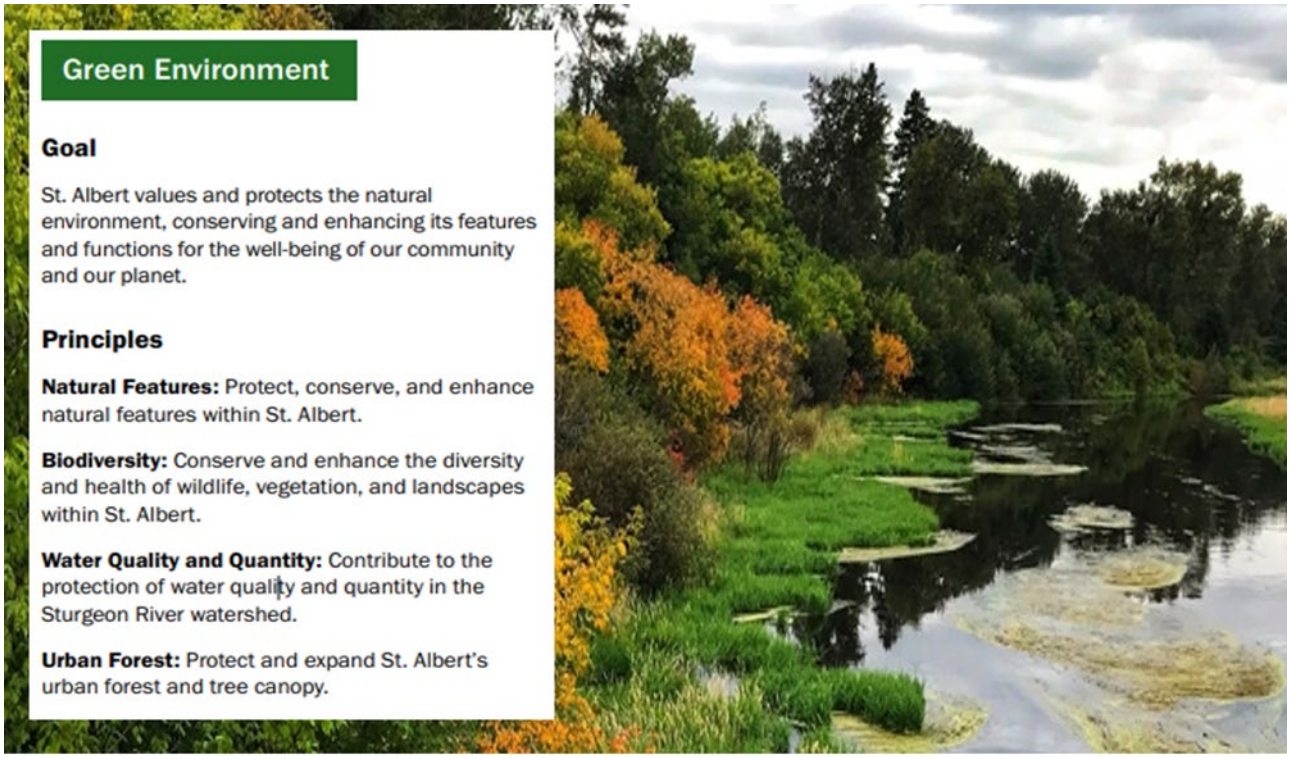


FLOURISH: GROWING TO 100K: ST. ALBERT'S MUNICIPAL DEVELOPMENT PLAN (MDP)



In April 2021, St. Albert's City Council adopted an innovative Municipal Development Plan (MDP) titled *Flourish: Growing to 100K.* This plan builds upon the foundation of the City's "Cultivating our Future: St. Albert's Community Vision," which engaged over 6,000 residents and yielded over 15,000 ideas to shape the Community Vision and Pillars of Sustainability. *Flourish: Growing to 100K* seamlessly integrates this vision with fresh insights from recent public engagement to produce its goals and principles. Serving as a blueprint for growth and development, the MDP aligns the community's values and aspirations, reflecting our shared vision for a thriving, sustainable and vibrant city.

In the framework of *Flourish: Growing to 100K,* a comprehensive vision for the community's future is woven through nine interconnected goals and principles. Among these pivotal goals lies the aspiration for a green environment, signifying a commitment to ecological sustainability. To actualize this ambition, the GES outlines a strategic path to effectively realize and integrate the green environment goal into the community's evolution.



MDP GREEN ENVIRONMENT PRINCIPLES

The GES is guided by the four foundational principles that comprise the MDP's green environment goal. To better understand each green environment principle, results have been defined to describe when a principle has been achieved. Results for each principle are also used as the basis to build performance measures so that progress towards achieving the principle can be monitored.

Natural Features:	*Protect, conserve and enhance natural features within St. Albert.*

St. Albert's natural features provide wildlife habitat and support the health and quality of life for residents. Maintaining a balance between development and the conservation of natural features is essential and may require limiting development within, and close to, natural features.

Results	Measures
Programs and policies balance the use and conservation of natural features in St. Albert.	Wildlife Stepping Stones • % loss (number/distance between) Natural Area Conservation • % net loss (resulting from new developments) • Change in # hectares (resulting from natural areas map changes)

Biodiversity:	*Conserve and enhance the diversity and health of wildlife, vegetation and landscapes within St. Albert.*

Biodiversity refers to the entire variety and range of life within a geographic area and can be understood at a variety of scales, from global to local. Development can influence local biodiversity negatively or positively. St. Albert's consideration and management of biodiversity aims to maintain a healthy and connected ecological network that supports the co-existence of development and the natural world.

Results	Measures
St. Albert is home to a diverse range of native flora and fauna.	Natural Area Conservation • % net loss (resulting from new developments) • Change in # hectares (resulting from natural areas map changes) Urban Vegetation • % change in cover (Urban Primary Land Vegetation Index uPLVI • % change in type
Programs and policies support local ecological networks.	Invasive Species • # of species • # of locations Wildlife Interactions • # sightings in specific communities • # changes in movement patterns • # public wildlife complaints • # traffic collisions





Marilyn Carlyle-Helms

Water Quality and Quantity:	*Contribute to the protection of water quality and quantity in the Sturgeon River watershed.*

Water quality is a key indicator of St. Albert's ecological health. Buildings and roads cover much of the city's surface, and these built features can contaminate water sources and make it difficult for rainfall to infiltrate the ground.

Water quantity is of concern due to the human, environmental and economic impacts of water scarcity. Declining water levels also lead to worsening water quality, as excess nutrients and other contaminants become more highly concentrated and oxygen levels decline, impacting fish populations.

Results	Measures
Low impact development is used throughout St. Albert.	River Water Quality Index • # index rating changes for each parameter • Permeable versus Hard Surfaces LiDAR permeability change
Programs and policies will improve and maintain St. Albert's portion of the watershed.	Natural Area Conservation • % net loss (resulting from new developments) • Change in # hectares (resulting from natural areas map changes)

Urban Forest:	*Protect and expand St. Albert's urban forest and tree canopy.*

The urban forest consists of all vegetation within the City's boundary, including trees, shrubs and grasses. The tree canopy refers to the uppermost layer in a forest, formed by the crowns of the trees. St. Albert's urban forest reinforces the city's strong green character and provides many benefits including improved community health and well-being, cleaner air, more shade, lower ambient temperatures buffers against temperature extremes and healthier, connected wildlife habitats.

Results	Measures
Programs and policies improve and maintain the urban forest.	Planted Public Trees • # planted (tree inventory) • % species diversity

PROGRAM AND SERVICE OBJECTIVES

To understand the impact of green environment principles on City operations, connections have been drawn to respective programs and services delivered by the City using the City's Services and Service Levels Inventory, (appendix to Council Policy C-FS-05 Budget and Taxation Guiding Principles). This connection also facilitates the identification of potential shifts in service delivery that may be required to support the GES.

The services affected by each green environment principle provide the basis for the following three objectives that were identified as being required to drive change in programs and services towards the green environment goal. To further clarify the intent of each program and service objective, results were determined similarly to how they were developed for each green environment principle. Corresponding performance measures were established to monitor progress and achievement of each objective. A full summary of aligned services is available in Appendix C: Program and Service Alignment.

Objective 1:	*Promote public stewardship of and involvement in parks and open spaces.*

St. Albert residents take initiative and share in the duties associated with maintaining City parks and open spaces. Education and awareness programs play a vital role in encouraging resident involvement. Workshops, seminars and community events are organized to provide information on sustainable practices, landscaping techniques and wildlife conservation. These initiatives empower residents with the knowledge and skills necessary to actively contribute to the maintenance and improvement of their local parks and open spaces.

Results	Measures
St. Albert residents initiate stewardship for parks and open spaces.	Environmental Program • # people participated
St. Albert residents share responsibility for parks and open spaces.	Parks and Animal Bylaw Compliance • # infractions



Objective 2:	*Be leaders in designing, implementing and protecting a green community.*

St. Albert prioritizes the protection and preservation of its natural surroundings. The City's planning and design strategies incorporate principles of ecological conservation and sustainability. Careful consideration is given to land use, ensuring that green spaces, parks and natural areas are seamlessly integrated into the urban fabric. By preserving and enhancing these natural assets, St. Albert creates a thriving ecosystem that benefits both residents and wildlife.

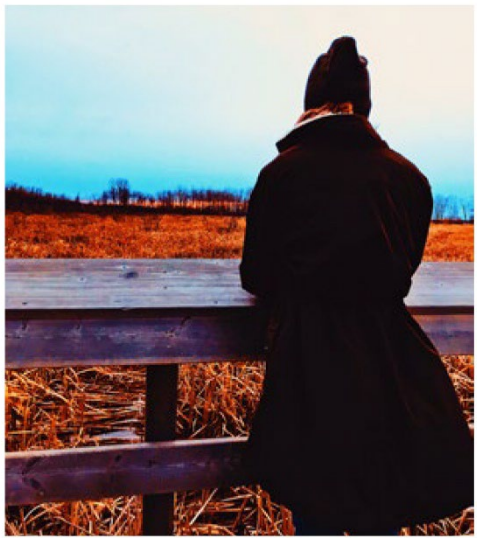
Results	Measures
St. Albert is a natural and naturalized community.	Naturalization Events • # hectares planted • # species planted • # participants Planted Public Trees • # planted (tree inventory) • # of diverse species River Water Quality Index • # index rating change for each parameter
St. Albert is designed with the intent to protect the natural environment of the city and surrounding watershed.	Natural Area Conservation • % net loss (resulting from new developments) • # hectares (resulting from map changes) Outfall Water Quality • # parameter increase/decrease • # of outfalls • # problem areas improved Walkability • # overall score
The City of St. Albert prepares for the future by considering environmental impacts and efficient use of land.	Dwelling Units • # hectares (dwelling unit above minimum)

Objective 3:	*Protect the environment and infrastructure through regulation, risk management and best practices.*

Regulations enforce environmental standards; risk assessments identify hazards and best practices guide sustainable development. The City stays informed, collaborates and leverages industry resources to ensure long-term sustainability and resilience. The City of St. Albert aims to create an environmentally conscious and well-prepared community.

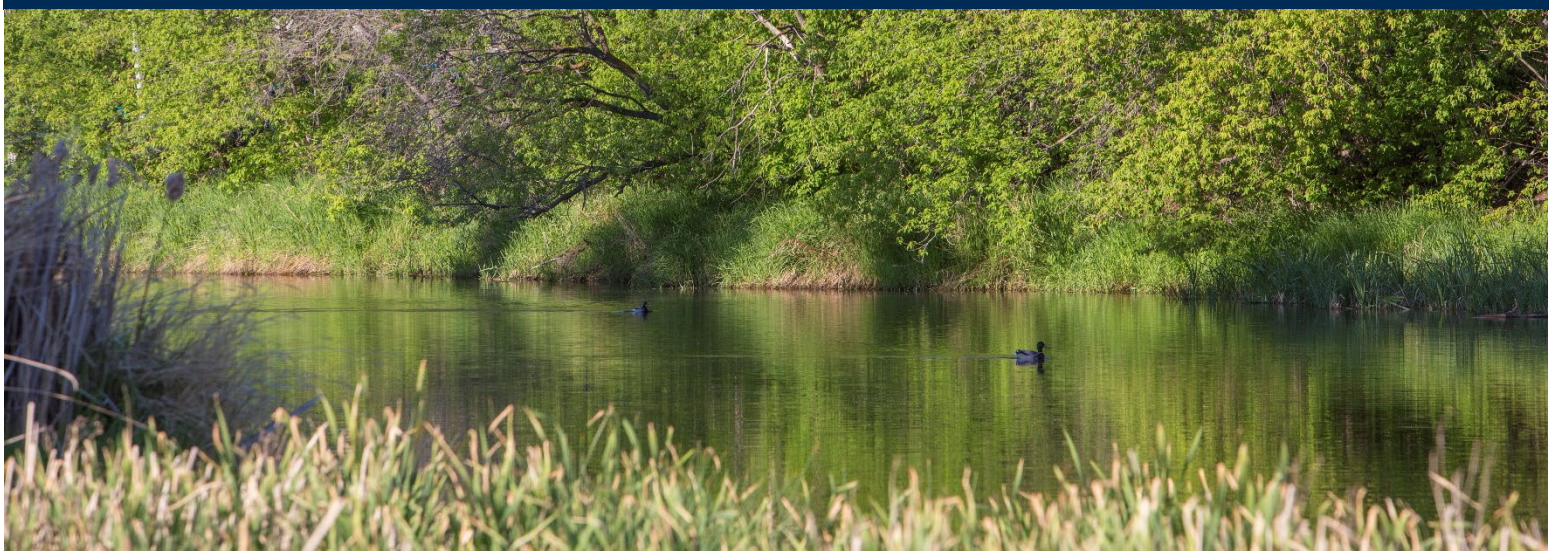
Results	Measures
The City of St. Albert utilizes tools to manage its environmental and infrastructure risks.	Environmental Construction Operations (ECO) Plans Submitted and Inspected • # plans submitted on time • # inspections • # positive/negative findings • # open/closed inspections Environmental Management System (EMS) Audit • # of non-compliance • # of non-conformance
The City of St. Albert utilizes tools to protect the environment and infrastructure.	Environmental Incidents • # spill responses – internal • # spill responses – external • # 7-day letters issued, # warning letters received Control Weed Notices – Private & Public • # resident complaints • # control weed notices issued





Veronica Tchir-Corrigan

Strategic Directions and Implementation



Each of the following strategic directions is accompanied by explanatory text that outlines its intent. In addition, an example of a relevant initiative, drawn from the GES's implementation plan, is provided to illustrate alignment with the intended course of action.

GREEN ENVIRONMENT STRATEGIC DIRECTIONS

Watershed

Protect wetlands and riparian areas and improve stormwater quality to contribute to the health of the watershed.

Intent:

The City of St. Albert seeks to protect and preserve wetlands, riparian areas and the watershed. Through strict regulations, restoration projects and innovative stormwater management, we aim to set an example for environmental stewardship and inspire other communities in preserving critical ecosystems.

Initiative Example:

Initiative	Description
Riparian Areas Restoration Program	Develop monitoring and restoration program for unhealthy riparian areas (i.e., identify key restoration areas and prioritize community naturalization efforts at those areas along the Sturgeon River).

Biodiversity

Monitor, protect and enhance natural features, parks, and open spaces to maintain, sustain and enrich biodiversity.

Intent:

The City of St. Albert strives for a harmonious coexistence between humans and wildlife, prioritizing the protection and enhancement of natural spaces to sustain biodiversity. Assessments will track conditions, safeguarding measures will prevent encroachment and pollution, and restoration and native plantings will attract diverse species.

Initiative Example:

Initiative	Description
Conservation Reserve Program	Develop a conservation reserve program including a strategy, policy and funding program, and partnership with land trusts.

Stewardship

Develop, maintain and enhance community environmental programs to foster a sense of stewardship of natural features, parks and opens spaces.

Intent:

The City of St. Albert aims to emphasize community environmental programs, engaging residents and promoting responsibility for natural features, while cultivating a culture of environmental stewardship. Through partnerships and inclusivity, the City looks to educate and raise awareness about sustainable practices, fostering continuous improvement and empowering residents to protect and preserve their environment for future generations.

Initiative Example:

Initiative	Description
Citizen Science Data Programs	Analyze citizen science collection and data storage within the City of St. Albert and implement a citizen science program, if required.

Governance

Develop and follow regulatory documentation for the protection of the environment. This could include regulations, guidelines, standards, policies and processes.

Intent:

The City of St. Albert looks to protect the environment through robust regulatory documentation. A strong regulatory framework will demonstrate the City's commitment to environmental stewardship and ensure the long-term well-being of its natural surroundings.

Initiative Example:

Initiative	Description
Sturgeon River Watershed Alliance	Support the Sturgeon River Watershed Alliance work to identify policy and planning gaps between municipalities and resolve differences (i.e., setback definition, bylaws) for the unified protection of natural areas.

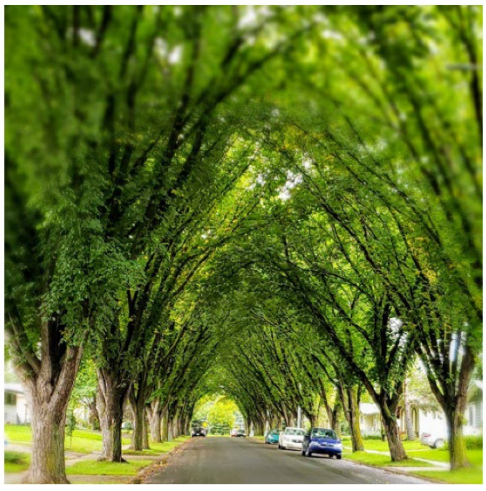
IMPLEMENTATION PLAN & MONITORING

To ensure the longevity of the GES, both the strategy and its implementation plan have been structured with planned cycles in mind. Updates to the GES will occur on a rolling five-year cycle, while the implementation plan, designed to actively realize the GES's goals, will be refreshed on a two-year cycle. Further updates may be prompted by the review and edits to key documents supporting this plan.

Measures identified will be closely monitored to ensure the goals, objectives and desired results are being achieved. A report will be prepared annually to report on the progress of the GES.

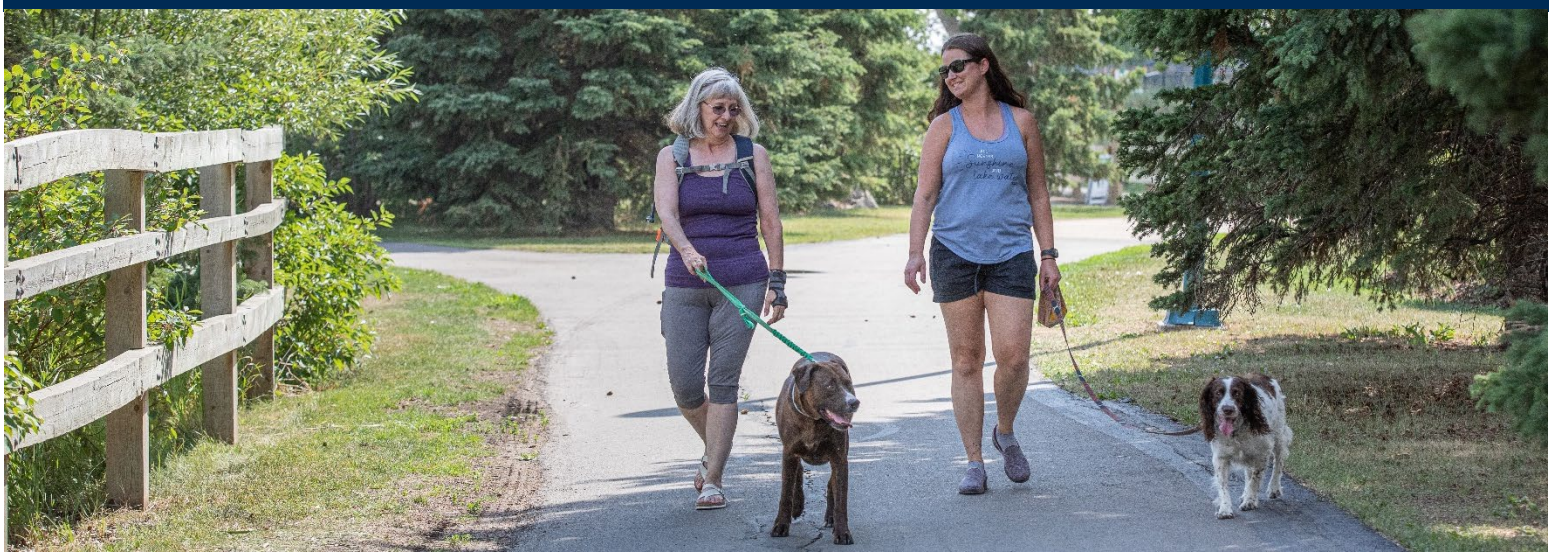


Carol Boyce



Chantelle Malo

Appendices



APPENDIX A: ENVIRONMENTAL SCANNING SUMMARY

To develop a successful Green Environment Strategy (GES), it was essential to assess the current state of surroundings and conduct an environmental scan to identify opportunities, challenges and risks. This includes political, economic, sociological, technological, legal and environmental factors that can have varying short- and long-term impacts on strategy outcomes.

FINANCIAL CONSTRAINTS

The GES needs to focus on the most essential and efficient strategies and initiatives over the next 10 years. With funding sources remaining uncertain and continued pressure to reduce bureaucratic obstacles, the GES should focus on the most critical ways to achieve the green environment goal and what is feasible within the GES's lifecycle. The GES may need to also consider alternative sources of funding to pursue strategic directions and tactics in the future.

POLITICAL AND COMMUNITY INTEREST

Political interest in environmental initiatives could change as governments change through elections. These changes in political interest were monitored throughout the development of the GES and will continue to be monitored throughout the implementation plan period. Similarly, legislative requirements could directly impact strategic directions or tactics included within the GES. Federal, Provincial and local legislative frameworks support ongoing work within the GES's goal and its principles (e.g., *Municipal Government Act, Weed Control Act*, Municipal Development Plan, Land Use Bylaw, Engineering Standards). The legislative reviews and updates, at all levels of government, that are planned or currently underway will impact what is feasible within a five to 10 year horizon. There will be implications to the tactics that are included within the GES.

Throughout the COVID-19 pandemic, residents have become more engaged in municipal affairs and have demonstrated higher use of municipal assets. This could mean a higher level of interest to participate in municipal planning processes, such as the GES. Community pressure for access to natural areas is increasing and as a result, a conversation needs to be had about balancing conservation, preservation and access to these areas. A broad consideration for climate change and how the City mitigates impacts of climate change should also be addressed. Due to the scope of the green environment goal within the MDP, climate change actions are part of Resilient Infrastructure Strategy and will not be addressed within the GES or its implementation plan.

USE OF NEW TECHNOLOGY

New technologies are expected to be applied to implement strategies within the GES. Exploring opportunities on how to efficiently use and apply these technologies could advance the City and its innovative practices. It will also present new opportunities to explore different lines of service and service levels.

KEY ACTIONS TO TAKE FROM THE ENVIRONMENTAL SCAN:

When formulating the GES, City Administration carefully considered environmental scan results to identify the following key strategies considerations that were incorporated into the decision-making process:

Strategy Considerations

- Include the strategic directions that are most essential (i.e., already occurring, easy to implement, low to no cost initiatives) in the next 10 years.
- Monitor political priorities as government changes through elections.
- Following the development of the draft strategy, confirm that the internal resources are available for the success of the GES.
- Develop strategic directions with an economic lens to determine what is feasible in the next 10 years.

Further Investigation Required

- Exploration of conservation reserves and options to fund.
- Discussion on balancing use of natural areas and the preservation and conservation of these areas.
- Exploration of opportunities on how to apply new technologies to assist with the implementation of the GES.
- Consideration of revenue generating opportunities.

APPENDIX B: ENGAGEMENT SUMMARY

Community engagement is a key component to building a strong strategy. Through a series of online brainstorming sessions, online discussions and in-person round table discussions with Indigenous partners, City Administration and the Environmental Advisory Committee, the following feedback was used to inform the development of strategic directions in Section 5.2.

NATURAL FEATURES, BIODIVERSITY AND URBAN FOREST

- Establish setback boundaries, increase recreational opportunities, improve public education and recognize areas that should be protected.
- Design policies to maintain and expand St. Albert's urban forest and greenspaces.
- Acquisition strategies should focus on wildlife corridors and high-quality parcels to sustain and improve biodiversity and encourage minimizing of human-wildlife interactions.
- Policies should be forward thinking, using development agreements and covenants to ensure land dedication is consistent with Area Structure Plan (ASP) and MDP guidelines.
- Encourage residents to connect and use natural spaces while balancing preservation.
- Educate the public on native plant species, traditional uses and proper gathering techniques.
- To maintain and protect natural features and biodiversity, key areas to focus should be riparian areas and wetlands and river corridor areas in St. Albert.

WATER QUANTITY AND QUALITY

- Water quality and quantity are interconnected; understanding residents and local business consumption habits is essential for planning for the future.
- Water conservation efforts should address high water usage rates, educating individuals and businesses on sustainable water usage and providing information on how activities might contaminate local water sources.
- Maintaining water quality includes ensuring access to the river, developing appropriate community activities and engagement efforts and ensuring stormwater management areas are available to support future needs.

CONTINUED ENGAGEMENT

- Protect environmental features, and ecosystems within and connected to the City of St. Albert through collaboration with neighboring municipalities, public agencies, community organizations, Indigenous partners and other levels of government
- Connect with volunteers to maintain natural areas, increase community engagement and promote biodiversity by planting native trees and shrubs.
- Maintain open dialogue, build trust, respect land history and involve Indigenous partners to create a sense of place and community for City development and growth.

APPENDIX C:
PROGRAM AND SERVICE ALIGNMENT

GREEN ENVIRONMENT PRINCIPLES ALIGNMENT

The table below outlines the results for each principle, identified measures and impacted City services:

PRINCIPLE **Natural Features: Protect, conserve and enhance natural features in St. Albert.**	
Result(s)	**Measure(s)**
Programs and policies balance the use and conservation of natural features in St. Albert.	Wildlife Stepping Stones • % loss (number/distance between) Natural Area Conservation • % net loss (resulting from new developments) • change in # hectares (resulting from natural areas map changes)

Impacted Service Areas

- Civic Granting
- Current Planning Application Processing
- Environmental Awareness
- Issuance of Land Use and Development Permits and Licenses
- Land Use Bylaw Amendments
- Long Range Land Use Planning
- Management of Environmental Risks and Compliance
- Parks, Open Spaces and Recreation Sites
- Recreation Facility and Park Development
- Release Prevention, Reporting and Response
- Stormwater Drainage Service
- Transportation Network Management and Maintenance

PRINCIPLE **Biodiversity: Conserve and enhance the biological diversity and health of wildlife, vegetation and landscapes within St. Albert.**	
Result(s)	**Measure(s)**
St. Albert is home to a diverse range of native flora and fauna.	Natural Area Conservation • % net loss (resulting from new developments) • Change in # hectares (resulting from natural areas map changes) Urban Vegetation • % change in cover (Urban Primary Land Vegetation Index - uLPVI) • % change in type
Programs and policies support local ecological networks.	Invasive Species • # of species • # of locations Wildlife Interactions • # sightings in specific communities • # changes in movement patterns • # public wildlife complaints • # traffic collisions

Impacted Service Areas

- Civic Granting
- Current Planning Application Processing
- Environmental Awareness
- Issuance of Land Use and Development Permits and Licenses
- Land Use Bylaw Amendments
- Management of Environmental Risks and Compliance
- Parks, Open Spaces and Recreation Sites
- Tree Planting and Maintenance
- Vegetation and Pest Control

PRINCIPLE **Water Quality & Quantity: Contribute to the protection of water quality and quantity in the Sturgeon River watershed.**	
Result(s)	**Measure(s)**
Low impact development is used throughout St. Albert.	River Water Quality Index • # index rating changes for each parameter • Permeable versus Hard Surfaces LiDAR permeably change Permeable versus Hard Surfaces • LiDAR permeability change
Programs and policies will improve and maintain St. Albert's portion of the watershed.	Natural Area Conservation • % net loss (resulting from new developments) • Change in # hectares (resulting from natural areas map changes)

Impacted Service Areas

- Current Planning Application Processing
- Environmental Strategy and Policy Development
- Issuance of Land Use and Development Permits and Licenses
- Land Use Bylaw Amendments
- Release Prevention, Reporting and Response
- Storm Water Drainage Service

PRINCIPLE **Urban Forest: Protect and expand St. Albert's urban forest and tree canopy.**	
Result(s)	**Measure(s)**
Programs and policies improve and maintain the urban forest.	Planted Public Trees • # planted (tree inventory) • % species diversity

Impacted Service Areas

- Application Reviews and Permitting
- Civic Granting
- Current Planning Application Processing
- Environmental Awareness
- Fund Development
- Land Use Bylaw Amendments
- Long Range Land Use Planning
- Management of Environmental Risks and Compliance
- Municipal Enforcement
- Parks, Open Spaces and Recreation Sites
- RCMP Police Services
- Release Prevention, Reporting and Response
- Transportation Network Management and Maintenance
- Tree Planting and Maintenance
- Vegetation and Pest Control

PROGRAM AND SERVICE OBJECTIVE ALIGNMENT

The table below outlines the results for each program and service objective, identified measures and impacted City services:

PROGRAM AND SERVICE OBJECTIVE #1 **To promote public stewardship of, and involvement in, parks and open spaces.**	
Result(s)	**Measure(s)**
St. Albert residents initiate stewardship for parks and open spaces.	Environmental Program • # people participated
St. Albert residents share responsibility for parks and open spaces.	Parks and Animal Bylaw Compliance • # infractions

Impacted Service Areas

- Civic Granting
- Environmental Awareness
- Fund Development
- Parks, Open Spaces and Recreation Sites
- Recreation Facility and Park Development

PROGRAM AND SERVICE OBJECTIVE #2 **To promote public stewardship of, and involvement in, parks and open spaces.**	
Result(s)	**Measure(s)**
St. Albert is a natural and naturalized community.	Naturalization Events • # hectares planted • # species planted • # participants Planted Public Trees • # planted (tree inventory) • # of diverse species River Water Quality Index • # index rating change for each parameter
St. Albert is designed with the intent to protect the natural environment of the city and surrounding watershed.	Natural Area Conservation • % net loss (resulting from new developments) • # hectares (resulting from map changes) Outfall Water Quality • # parameter increase/decrease • # of outfalls • # problem areas improved Walkability • # overall score
The City of St. Albert prepares for the future by considering environmental impacts and efficient use of land.	Dwelling Units • # hectares (dwelling unit above minimum)

Impacted Service Areas

- Current Planning Application Processing
- Environmental Reviews of Development Applications
- Environmental Strategy and Policy Development
- Long Range Land Use Planning
- Management of Environmental Risks and Compliance
- Municipal Enforcement
- Transportation Network Asset Management and Maintenance
- Tree Planting and Maintenance

PROGRAM AND SERVICE OBJECTIVE #3 **To protect the environment and infrastructure through regulation, risk management and best practices.**	
Result(s)	**Measure(s)**
The City of St. Albert utilizes tools to manage its environmental and infrastructure risks.	Environmental Construction Operations (ECO) Plans Submitted and Inspected • # plans submitted on time • # inspections • # positive/negative findings • # open/closed inspections Environmental Management System (EMS) Audit • # of non-compliance • # of non-conformance
The City of St. Albert utilizes tools to protect the environment and infrastructure.	Environmental Incidents • # spill responses – internal • # spill responses – external • # 7-day letters issued, # warning letters received Control Weed Notices – Private and Public • # resident complaints • # control weed notices issued

Impacted Service Areas

- Capital Project Management
- Management of Environmental Risks and Compliance
- Municipal Enforcement
- RCMP Police Services
- Release, Prevention Reporting and Response
- Stewardship of Environment Management Systems
- Stormwater Drainage Services
- Vegetation and Pest Control

APPENDIX D: IMPLEMENTATION PLAN

The following implementation plan was derived from the defined strategic directions and serves as a roadmap for the City to execute operational activities. In developing these initiatives, the following factors were taken into consideration:

- **Planning Horizon** – can feasibly be completed within the five-year window.
- **Alignment** – does not conflict with strategic directions, cause unmanageable impacts or derail progress.
- **Relevance** – is relevant to the scope of the long-range strategy.
- **Capacity** – can be prioritized and resourced by key business areas within City administration after considering other strategic priorities.
- **Resource Feasibility** – does not require a significant investment of people/dollars or can justify the need to invest.

It is important to note that many of the initiatives listed could fall under more than one strategic direction, however, for reporting purposes they have been placed under the strategic direction that has the strongest alignment.

Initiative	Description	2024	2025	2026	2027	2028	Resources
Watershed - Protect wetlands and riparian areas and improve stormwater quality to contribute to the health of the watershed.							
Groundwater Protection	Identify key recharge and discharge areas for groundwater and areas at risk of contamination and use provincial (e.g., the Alberta Wetland Policy) and municipal tools (e.g., map overlays, environmental reserve, aquifer signage) to protect such areas as they are identified.						**$**
LID Water Management Improvement	Create guidelines and incentives for low impact developments (LID) for public and private for water management.						**$$$**
Riparian Areas Restoration Program	Develop monitoring and restoration program for unhealthy riparian areas (i.e., identify key restoration areas and prioritize community naturalization efforts at those areas along the Sturgeon River).						**$$**
Water Quality Improvements	Identify enhanced methods to monitor river and outfall water quality to implement best management practices (i.e., real-time river monitoring and load calculations, analyze outfall WQ indicators and develop improvement plan).						**$$**

Initiative	Description	2024	2025	2026	2027	2028	Resources
Biodiversity - Monitor, protect and enhance natural features, parks and open spaces to maintain, sustain and enrich biodiversity.							
Developer Relationships	Identify and embrace opportunities to build relationships with developers to get land in natural state (i.e., meet quarterly).						$
Conservation Reserve Program	Develop a conservation reserve program including a strategy, policy and funding program and partnership with land trusts.						$$$
Planting Native Species	Build program to encourage public and private planting of native species.						$
Natural Assets Integration	Integrate natural assets into the City's asset management planning framework and explore resources and initiatives with the Municipal Natural Assets Initiative (MNAI).						$$
Enhance Urban Forest	Investment in enhancing urban forest assets (i.e., reviewing landscape plans, capital funds to continue purchasing more plant stock, outreach, engineering standards updates, add Tangible Capital Asset).						$$
Invasive Species Management	Develop an invasive species risk identification and management plan as part of the Integrated Pest Management Plan annual review and update.						$
Municipal Reserve Guidelines	Establish guidelines to determine the appropriate amount of municipal reserve for use as natural area protection.						$
Natural Areas Mapping	Review and update mapping of natural features, connectivity and green spaces.						$
Natural Area Protection Policy	Development of Natural Area Protection Policy including a sensitivity hierarchy and conservation priorities for development including stepping stones. (Note: Reference Natural Area Conservation and Management Plan).						$
Tree Protection	Identify methods and develop controls to ensure mature public trees are protected.						$

Initiative	Description	2024	2025	2026	2027	2028	Resources
Stewardship - Develop, maintain and enhance community environmental programs to foster a sense of stewardship of natural features, parks and open spaces. Initiatives are developed in partnership to be inclusive and represent our diverse community.							
Citizen Science Data Programs	Analyze citizen science collection and data storage within the City of St. Albert and implement a citizen science program, if required.						$
Nature Education and Stewardship Program	Build on existing community environmental programming to include a focus on nature education and stewardship.						$$
Governance - Develop and follow regulatory documentation for the protection of the environment. This could include regulations, guidelines, standards, policies and process.							
Policy Analysis and Implementation	Review environment policies/bylaws to identify updates required, develop policies/bylaws for gaps and communicate changes. (e.g. water balance study, policies from the GOA Stepping Back from the Water Guide, pesticide and fertilizer bylaws, setbacks, building standards).						$
Sturgeon River Watershed Alliance	Support the Sturgeon River Watershed Alliance work to identify policy and planning gaps between municipalities and resolve differences (i.e., setback definition, bylaws) for the unified protection of natural areas.						$

APPENDIX E: GLOSSARY OF TERMS

Term	Definition
Capacity	The amount of work or output a resource can handle efficiently in a given time.
Engagement	Interacting and communicating with individuals, groups or organizations that have an interest, involvement or influence on decisions to ensure their perspectives are considered and addressed.
Goal	An aim or desired result. *(Aspirational outcome or solution to a problem)*
Green Environment Goal	St. Albert values and protects the natural environment, conserving and enhancing its features and functions for the well-being of our community and our planet. (Source: St. Albert Municipal Development Plan, *Flourish*)
Implementation Plan	A five-year implementation plan designed to action the Green Environment Strategy.
Initiative	An action taken to pursuing achievement of a goal or objective
Laser Imaging Detection and Ranging (LiDAR)	A method for determining ranges by targeting an object or a surface with a laser and measuring the time for the reflected light to return to the receiver. LiDAR is commonly used to make high resolution maps with applications in surveying and forestry.
Municipal Development Plan (MDP)	A municipal statutory document that defines St. Albert's built form vision over the next 30 years.
Objective	An aim or desired result.
Performance Measures or Measures	A method to monitor and gauge progress towards achievement of a result related to a principle or objective.
Planning Horizon	The time during which decisions and plans are made for future activities.
Policies	Statements that further support and define the principle within the MDP.
Principles	A theme within the MDP goal.
Priorities	Topics of high importance.

Term	Definition
Program and Service Objectives	An objective related to a group of services, known as a program. These objectives have a 10-year horizon.
Results	Statements related to what work will be like when the principle or objective is achieved. (Evidence of realizing the goal)
Risk	The likelihood and consequence of an event occurring that causes harm.
Services and Service Levels Inventory	A document that inventories programs and services delivered by the City of St. Albert to the community.
Strategic Direction	A statement or theme describing the synergy between the MDP goal, program and service objectives and community input on priorities. The statement describes how the City would approach achieving the stated goal and objectives.
Strategy	Refers to the Green Environment Strategy. It is a 10-year strategic plan to address a goal defined within the Municipal Development Plan.
Tactics	Actions taken to enact the strategy.
Urban Primary Land and Vegetation Index (uPLVI)	An inventory that provides spatial and temporal snapshot of natural cover (i.e., natural forests, natural wetlands), modified cover (i.e., maintained turf grass, tame pasture/hay fields), and developed cover (i.e., sidewalks, recreational trails, parking lots, buildings). The inventory data is collected to give insights into the spatial relationship of various cover types, their area extent, opportunities for management and potential change over time.