

Environmental Portfolio



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Introduction

In 2021, the Town developed its first Environmental Master Plan (EMP) to establish a vision and associated policies for Stony Plain to become a leader in environmental stewardship, and guide actions to prioritize the health of the environment for current and future generations. A component of this work included renewing the Environmental Stewardship Strategy, originally created in 2007 and updated in 2011, to establish an implementable action plan to progress environmental goals and achieve the vision identified in the EMP. Renewing the ESS alongside the creation of the EMP ensured that recommended actions were current and relevant, and that they aligned with the overarching goals and vision developed throughout the EMP process. This work all comes from the Municipal Development Plan's Environmental Responsibility theme.

The ESS presents the Town's Environmental Portfolio, which is a list containing all environmental initiatives that occur in the town of Stony Plain or are planned to take place along with related goals. Initiatives are grouped based on their expected completion time and overall responsibility into the following categories:

- Ongoing;
- Action Plan;
- Beyond the Action Plan; and
- External.

Purpose of the Annual Update

With the EMP and renewed ESS in place, monitoring and reporting on environmental initiatives is essential to track progress towards environmental goals. This report provides the first annual update to the Environmental Portfolio. The update includes the status of current initiatives and goals, as well as new initiatives added to the portfolio and details about how they fit into it.

The 2021 Environmental Portfolio update provides a summary of changes and additions resulting from implementation progress between July and December 2021.

Appendix A presents the updated Environmental Portfolio and includes all the initiatives and their progress, changes, and additions that resulted in 2021. Select initiatives are highlighted below by category with specific details to emphasize what is new, trending or significant for the work that took place in 2021 or is planned for 2022.

Summary of Changes and Additions

As municipal project work is completed, it is common for opportunities to arise that were not initially contemplated when a project is finalized. As a result, additional items are often added at the implementation stage to capture new opportunities and changing priorities. Since the ESS was completed, there has been interest in the Clean Energy Improvement Program and a greater

focus on greenspaces and parks. Three new initiatives related to these have been added to the Action Plan and are specified in more detail below:

Clean Energy Improvement Program (CEIP)

The Town explored the CEIP as an opportunity for residential and commercial property owners to make energy efficiency and renewable energy upgrades more affordable. Structured and monitored by the municipality, the provincial CEIP can help achieve Stony Plain's environmental goals by providing financing options that empower and enable landowners to complete local upgrades and improvements. Completing this work would help with the Town's transition to renewable energy by supporting community members in achieving localized and innovative energy improvements, while utilizing these improvements to inform future energy initiatives such as community energy audits and solar energy feasibility studies.

The CEIP is delivered by the Alberta Municipal Services Corporation (AMSC) in partnership with municipalities across the province. To setup the program, a municipality is required by AMSC to pass a bylaw to secure the capital required to finance CEIP projects. A municipality is required to pay the upfront costs for any work completed under the program to AMSC and AMSC pays contractors to undertake any necessary work. The municipality then recovers the costs and any interest as repayments through property tax payments over 20-25 years once the total project cost gets added to a property.

Once pre-qualified, eligible landowners can prepare an application, enter into the associated agreements, and have their improvement installed by a qualified contractor. The CEIP provides unique financing opportunities that allow property owners to obtain competitive interest rates, with the flexibility to pay the project off at any time. Additionally, project financing is tied to the property, not the property owner, which differentiates the CEIP from other available financial models.

Research on the CEIP was completed in 2021 to generate discussion in 2022 to inform if the Town wants to proceed with enacting the program in Stony Plain as part of Phase 1 of the Action Plan. Approval of a Council Bylaw and financial plan with funding would be required.

Environmental Portfolio theme: Energy

Environmental Portfolio goal: Promote and implement renewable Energy

Rationale for addition: Opportunity to make energy efficient and renewable energy upgrades more attainable for homeowners and businesses in Stony Plain

Greenspace Plan

Considering existing data related to environment, parks and open spaces, recreation, active transportation, utilities, and stormwater, among others, the Town is preparing to create a Greenspace Plan to establish a green network that specifies categories for different types of greenspaces, identifying suitable uses and management practices for each category. Completing

this work will support the Town's efforts to enhance the urban ecosystem for healthy and diverse greenspaces in the present and future, while informing land initiatives such as future Arbour Day celebrations, and opportunities for planting native and edible vegetation.

This initiative is planned to be completed by a Sustainability Scholar, requiring partial funding and Town staff time for implementation and completion as part of Phase 1.

Environmental Portfolio theme: Land

Environmental Portfolio goal: Promote the conservation and enhancement of natural ecosystems and urban forests

Rationale for addition: Opportunity to consolidate and clarify municipal policies to inform decision-making on land development applications (2022 Sustainability Scholar project)

Parks and Open Space Guidelines

Building on the Parks and Open Space Master Plan, Trails Master Plan, and Active Transportation Strategy, the Town is preparing to develop guidelines for the acquisition, development, and maintenance of parks and open spaces within the municipality. This project will ensure newly developing areas allocate appropriate land for parks and open spaces, where required, and guide land use decisions on the type, variety, accessibility, and amenities proposed for new parks and open spaces. Completing this work will support the Town's proactive approach to land management by establishing an integrated and coordinated process for parks planning, informing future updates to the Land Management Policy and the Greenspace Plan.

This initiative is planned to be added to the department workplan to be implemented and completed by Town staff as part of Phase 1.

Environmental Portfolio theme: Land

Environmental Portfolio goal: Promote the conservation and enhancement of natural ecosystems and urban forests

Rationale for addition: Opportunity to refine and clarify a step of the land development process

These three initiatives have been added to Phase 1 of the Action Plan and are currently identified as active, or to be commenced in 2022.

Status of Initiatives

To report on the status of existing initiatives, *Appendix A* under 2021 Status Update notes whether each initiative is either active or inactive. Most initiatives, especially Ongoing and External initiatives as well as active Action Plan initiatives, specify progress information, like what took place in 2021 and what is planned for 2022. Most inactive initiatives also state that they have not started yet. Where available and relevant, specific numbers have been referenced to indicate trends, especially for Ongoing initiatives.

Ongoing Initiatives

Despite impacts from COVID-19, the Town was able to continue with many initiatives this year. Initiatives from each theme (energy, land, water, waste and air) were able to take place. Below are some of the highlights of each Environmental Portfolio theme:

Energy initiatives: the *trail solar lighting* program was launched nine years ago, and installed six lights a year for three years, with a couple additions bringing the total lights to 25. Six are around playgrounds and the remaining 19 are along Whispering Waters Creek from Meridian Heights to Woodlands. The Town is currently procuring new lights for the coming years that are better suited for Canadian winters.

Land initiatives: *Arbour Day*, a beloved annual community event that has been ongoing since 2010, saw the planting of 18 new trees at the Southridge community park. Also, the *Regional Agriculture Master Plan* was accepted this year by the Edmonton Metropolitan Region Board. The Town is developing an Urban Agriculture Plan as a result of the regional work that will be completed in 2022.

Air initiatives: Community Peace Officers actively responded to instances of air pollution, including 4 idling complaints and 15 open burning concerns.

Water initiatives: Collected water from Heritage Park has continued to be used for watering flowers. Ground water from dewatering wells was used again this past winter to create skating rinks around town.

Waste initiatives: Our community achieved a 53% waste diversion rate with weekly collection, due to 767.56t of blue bag material and 2025.66t of organic material being diverted out of 5252.61t of total collected material. The Rotary Recycling Centre continued its electronic waste pilot program, allowing residents to recycle even more types of electronic waste, such as power tools, small kitchen appliances and audio-visual equipment. Pitch-In week also garnered an extremely high turn out this year, with 1080 volunteers helping to clean up the community.

Action Plan Initiatives

Five initiatives from Phase 1 and one initiative from Phase 2 commenced in 2021. Although the Action Plan phases are meant to be completed in sequential order, there may be years where initiatives from other phases are initiated before the previous phase is fully completed; this will take place based on changing priorities or when new opportunities arise.

Phase 1 initiatives included three that were planned for in the ESS and two new ones described above: the Clean Energy Improvement Program, and Parks and Open Space Guidelines. The three previously planned included:

1. the development of an Environmental Initiatives page on the Town's website, where residents can learn more information about environmental topics and events in Town (launching February 2022);

2. the gathering of municipal energy consumption data also took place, which will help inform the role of the Municipal Energy Manager, who will be hired this year; and
3. exploring solar infrastructure potential during the design phase for a future public works building, which would reduce the energy consumption for the future operations building.

In 2021, the Town applied for and received funding for the Municipal Energy Manager, a Phase 2 initiative. The one-year position will start in 2022 to analyze the municipal energy consumption data collected in 2021.

The table below summarizes the progress status of each phase of the Action Plan as of the end of 2021.

Action Plan Phase	Initiatives in Progress	Progress Status
1	5/8	62.5%
2	1/6	17%
3	0/2	-
4	0/2	-
5	0/2	-
	6/20	30%

External Initiatives




The Town supports a number of initiatives that are led by other organizations and levels of government. As such, the Town actively participates in regional committees and technical working groups to support progress towards these larger initiatives. Currently, the Town is involved with the following groups and committees, as they pertain to environmental initiatives and actions:

- Edmonton Metropolitan Region Transit Services Commission
- Edmonton Region Waste Advisory Committee
- EMRB Environment, Social, and Governance Technical Committee
- EMRB Regional Agricultural Master Plan (RAMP) Working Group
- EMRB Solid Waste Collaborative

Beyond the Action Plan Initiatives

One initiative from Beyond the Action Plan (explore urban agriculture feasibility) is being addressed through the Urban Agriculture Plan (UAP). Work on the UAP started in September 2021 and is scheduled to be completed in May 2022. Depending on the direction provided by the Urban Agricultural Plan, this initiative may become part of the Action Plan in future updates.

Appendix A: Updated Environmental Portfolio

Initiative	Description	Supported Goal	2021 Status Update	
ONGOING INITIATIVES				
	LED Traffic Light Replacement Program	Replace older non-energy-efficient traffic lights with modern LED lighting	<i>Establish the Town's corporate GHG emissions and determine an achievable emissions reduction target.</i>	Five new LED Traffic Lights installed
	Trail solar lighting	Implement solar lighting along trails.	<i>Promote and implement renewable Energy.</i>	Current model batteries perform poorly in cold weather so exploring new light standards for installation in 2023
	Arbour Day	Plant trees in under vegetated areas each year to promote the health of the urban forest.	<i>Promote the conservation and enhancement of natural ecosystems and urban forests.</i>	2021 event resulted in 18 new trees planted at the community park in Southridge
	Regional Agricultural Master Plan (RAMP) implementation	Support the creation, implementation, and realization of the Regional Agricultural Master Plan.	<i>Contribute to regional food security initiatives.</i>	Commenced monitoring and reporting for the RAMP; started work on the Urban Agriculture Plan
	Limit vehicle idling	Limit vehicle idling in the Traffic Bylaw to less than 30 minutes, unless exempted.	<i>Establish and maintain bylaws and monitoring systems to minimize air pollution.</i>	Community Peace Officers actively respond to files related to idling vehicles; four files responded to in 2021
	Restrict open burning	Prevent the burning of materials that contribute to pollution through the Open Burning Bylaw.		Community Peace Officers actively respond to files related to the Open



			Burning Bylaw; 15 files responded to in 2021 Ongoing data collection
Air monitoring station	View real time data on air quality in the town through the air monitoring station.		
Tri-Municipal Rain Barrel Sale	Offer rebates on rain barrels at the annual Rain Barrel Sale to incentivize reuse of rainwater.	<i>Reduce stormwater runoff.</i>	No event in 2021 due to supply challenges resulting from COVID-19; event expected to return in 2022
Heritage Park pavilion water collection	Collect and reuse of water on-site to reduce facility water consumption at Heritage Park.		Collected water continues to be used for watering flowers and plants throughout warmer months, and for dust control at Heritage Park, as needed
Groundwater filled skating rinks	Use groundwater instead of treated municipal water when filling skating rinks to reduce water consumption.	<i>Establish municipal and community water consumption levels and determine an achievable water consumption reduction target.</i>	Groundwater continues to be used for outdoor rinks, except for Centennial which draws from the Glenn Hall Arena
Safe hydrant flushing	Use dichlorination pucks when flushing fire hydrants to protect stream courses and stormwater management facilities.	<i>Protect and improve stormwater quality.</i>	More than 500 hydrants were flushed in 2021 with dichlorination pucks
Recycling and organics program	Collect municipal recycling and organics alongside waste collection.	<i>Achieve 70% waste diversion from landfills by 2030.</i>	767.56t of blue bag material, 2025.66t of organic material, and 2459.39t of waste material





			collected in 2021, resulting in a 53.2% diversion rate for all materials
Rotary Recycling Centre	Provide a place for residents to drop off recyclables that are not accepted through regular curbside pick-up.		New pilot program for expanded electronic waste recycling began in late 2020 and continued into 2021, including new items such as small household appliances, power tools, and audio-visual equipment
Shred-It Event	Provide residents and business owners with an easy and accessible opportunity to recycle sensitive documents.		Shred-It continues to be a successful annual event with a higher turn out in 2021 than 2020
Recycle Coach App	Educate residents on what household materials are recyclable.		10,521 total users in 2021 (2,205 mobile, 7,218 web app, 1,098 calendar) 311,129 total app interactions, 558 new subscribers, 9,723 material searches
Concrete recycling	Recycle concrete waste that is not useable.		Clean, rebar free concrete is accepted to the Town year-round, and is crushed and recycled every ten years
Christmas Tree Drop-Off	Allow residents to drop-off Christmas trees at the Rotary Recycling Centre for mulch.	<i>Encourage community awareness and action on waste management.</i>	Annual Christmas tree collection was provided to the community, Town

			Administration looking into new ways to utilize recycled trees in 2022 No event held in 2021; event expected to return in 2022
Community Street Market	Promote the resale of gently used items through the community street market.		
Treasure Hunt & Large Item Drop-Off	Recycle large items on the curb and allow other residents to collect them.		7.71MT of large, non-metal items dropped off in 2021
Pitch-In Week	Collect garbage with community members to reduce the amount of litter in the town.		Approximately 1080 volunteers helped clean-up the community in 2021
Expand the 'Don't Just Trash It' campaign	Expand the 'Don't Just Trash It' campaign to educate residents on proper waste management.		Social media campaign ran all year and is scheduled to continue into 2022

ACTION PLAN (PHASE 1)




<i>Clean Energy Improvement Program</i>	<i>Provide opportunities for to make energy efficient upgrades more affordable for residential and commercial property owners.</i>	<i>Promote and implement renewable energy.</i>	<i>Active, initial research took place in 2021, further discussion and possible implementation in 2022</i>
Gather municipal building energy consumption data	Track and monitor the energy consumption of municipal buildings to understand municipal energy consumption.	<i>Establish the Town's corporate GHG emissions and determine an achievable emissions reduction target.</i>	Active, energy audits underway for five municipal sites; resulting information will be used to inform the Municipal Energy Manager Program (phase 2)



	Explore solar infrastructure on new Town buildings	Explore solar infrastructure opportunities on the new recreation facility and Public Works building.	<i>Promote and implement renewable energy.</i>	Active, currently being incorporated into the Public Works building design
	<i>Parks and Open Space Guidelines</i>	<i>Establish guidelines and standards for the acquisition, development, and management of parks and open spaces.</i>		<i>Active, underway</i>
	<i>Greenspace Plan</i>	<i>Develop a greenspace plan to establish a green network that creates and specifies categories for different types of greenspaces, identifying suitable uses and management practices for each category.</i>	<i>Promote the conservation and enhancement of natural ecosystems and urban forests.</i>	<i>Inactive, to commence in 2022</i>
	Urban Forest Management Plan	Develop an Urban Forest Management Plan to manage and monitor urban forest health.	<i>Promote the conservation and enhancement of natural ecosystems and urban forests.</i>	Inactive, not started
	Arbour Day corporate sponsorship	Seek corporate sponsorships for Arbour Day to increase tree planting capacity.		Inactive, not started
	Create an environmental webpage and online brochure	Create a webpage and online brochure educating residents on environmental topics and initiatives (energy-efficiency upgrades,	<i>Promote and implement renewable energy. Establish municipal and community water consumption levels and determine an achievable water consumption reduction target.</i>	Active, ongoing work to draft website content to be posted in 2022

	provincially regulated invasive species, solar, etc.)		
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ACTION PLAN (PHASE 2)

	Town Vehicle Fuel Efficiency Policy	Amend the Town Vehicle Policy to incorporate criteria for fuel efficiency.	<i>Establish the Town's corporate GHG emissions and determine an achievable emissions reduction target.</i>	Inactive, not started
	Town Building Solar Energy Policy	Develop a solar energy policy for Town-owned buildings to encourage the use of solar infrastructure.	<i>Promote and implement renewable energy.</i>	Inactive, not started
	Municipal Energy Manager Program		<i>Establish the Town's corporate GHG emissions and determine an achievable emissions reduction target.</i>	Active, funding approved in 2021, position will be hired in 2022
	Trails Master Plan Update	Update the Trails Master Plan to incorporate findings of the Active Transportation Strategy.	<i>Promote the conservation and enhancement of natural ecosystems and urban forests.</i>	Inactive, not started
	Environmentally significant area study	Conduct an environmentally significant area study in the Future Development District.		Inactive, not started
	Rotary Park well for skating rinks and watering	Drill a new well at Rotary Park to use groundwater to fill the skating rink and for general watering for landscaping.	<i>Establish municipal and community water consumption levels and determine an achievable water consumption reduction target.</i>	Inactive, not started

ACTION PLAN (PHASE 3)



Solar Feasibility Study	Conduct a solar feasibility study to understand what areas of the town are most suitable for solar opportunities.	<i>Promote and implement renewable energy.</i>	Inactive, not started
Tree planting program for local groups	Working with local groups on tree reforestation opportunities on municipal land.	<i>Promote the conservation and enhancement of natural ecosystems and urban forests.</i>	Inactive, not started



ACTION PLAN (PHASE 4)



Willow Park natural area revegetation	Revegetate barren and maintained portions of Willow Park Natural Area.	<i>Promote the conservation and enhancement of natural ecosystems and urban forests.</i>	Inactive, not started
Explore new water metres	Increase water conservation opportunities with new water meters.	<i>Establish municipal and community water consumption levels and determine an achievable water consumption reduction target.</i>	Inactive, not started



ACTION PLAN (PHASE 5)



Water Use Study		<i>Establish municipal and community water consumption levels and determine an achievable water consumption reduction target.</i>	Inactive, not started
Develop a rebate strategy	Develop a rebate strategy for rebate opportunities around	<i>Promote and implement renewable energy. Establish municipal and community</i>	Inactive, not started



	energy and water consumption.	<i>water consumption levels and determine an achievable water consumption reduction target.</i>	
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EXTERNAL



Edmonton Metropolitan Region transit system	Work with regional transit partners to provide a regional transit network.	<i>Promote and implement alternative transportation modes</i>	Work being led by the Edmonton Metropolitan Region Transit Services Commission
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Tri-Municipal Waste Commission	Promote regional collaboration and explore regional waste and recycling collection opportunities.	<i>Achieve 70% waste diversion from landfills by 2030.</i>	Regional discussions continue, no specific action decided upon
Residential waste audit	Conduct a residential waste audit to understand current community waste diversion rates.		Approach being explored by the Solid Waste Collaborative
Investigate options for recycling Styrofoam and glass	Investigate recycling opportunities of Styrofoam and glass to encourage waste diversion.		Opportunities being explored by the Edmonton Region Waste Advisory Committee
Adopt a single-use plastic bylaw	Adopt a single-use plastics bylaw to reduce production of single-use plastic waste and encourage reusable materials.		Research is being conducted by the provincial government.

BEYOND ACTION PLAN



Conduct community energy audit	Conduct a community energy audit and develop a baseline of community GHG emissions to develop feasible reduction targets.	Establish the Town's community GHG emissions and determine an achievable emissions reduction target.	Inactive, not started
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Explore enhanced native and edible vegetation planting	Explore incorporating more native and edible tree and shrub species when planting on Arbour Day.	<i>Promote the conservation and enhancement of natural ecosystems and urban forests.</i>	Inactive, not started
Explore urban agriculture feasibility	Explore urban agriculture opportunities such as backyard beekeeping and chickens.	<i>Contribute to regional food security initiatives.</i>	Active, ongoing through work on the Urban Agriculture Plan
Explore expanding community gardens	Explore new and expansions to existing community gardens through local partners such as the Multicultural Heritage Centre.		Inactive, not started
Join the Alberta Capital Airshed	Join the Alberta Capital Airshed to learn more about promoting and ensuring safe air quality in the community.	<i>Educate the community on air quality issues.</i>	Inactive, not started
Establish a fine particulate matter sensor station	Partner with the Alberta Capital Airshed to establish and monitor for fine particulate matter to mitigate air pollution.	<i>Establish and maintain bylaws and monitoring systems to minimize air pollution.</i>	Inactive, not started
Launch anti-idling campaign	Launch an anti-idling campaign to encourage less vehicular idling.	<i>Educate the community on air quality issues.</i>	Inactive, not started
Conduct a Noise Acoustic Study	Conduct a noise acoustic study alongside Highways 16A, 628, and 779, and the CN Rail	<i>Collect quantitative data on noise pollution and implement mitigative measures.</i>	Inactive, not started





	line to implement noise control improvements.		
Introduce quantitative noise prohibitions	Amend Community Standards Bylaw to include quantitative noise prohibitions.		Inactive, not started
Monitor for total suspended solids in stormwater discharge	Monitor and understand the current amount of total suspended solids in stormwater discharge.	<i>Protect and improve stormwater quality.</i>	Inactive, not started
Conduct a Road Salt Study and create a Salt Management Plan	Conduct a road salt study to understand salt use in the Town and create a salt management plan to protect waterways		Inactive, not started
Increase vegetation adjacent to stormwater management systems	Increase vegetation in stormwater management retention and detention ponds, and on the riparian areas of creeks in Stony Plain.		Inactive, not started
Explore salvageable construction scraps	Designate land where salvageable construction scraps can be reused and recycled.	<i>Achieve 70% waste diversion from landfills by 2030.</i>	Inactive, not started