Sustainability Reserve Funding Submissions

Introduction

The following 15 submissions meet the eligibility criteria for Sustainability Reserve funding. The initiatives are described below.

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1. Sustainable Food - Pilot 1.0

Capital Project - Establish New

A series of sustainable food system projects that implement recommendations in the Green Infrastructure Strategy and Solid Waste Reduction and Diversion Plan. The full scope of the pilot projects include:

- A traditional food system pilot project - Work with and support partners to incorporate food and fruit production or traditional food systems into high priority urban areas.
- A food forest pilot project - Identify potential sites and partners to develop a food forest pilot project.
- An edible foraging mapping pilot project.
- A food waste reclamation pilot project - Reduce Food Waste and increase reclamation through a coordinated approach.
- A school organics program pilot project - Establish a program to increase waste diversion from local schools.
- A residential food waste education pilot - Food waste reduction program.

The Sustainability Reserve submission would fully fund the traditional food system, edible foraging map and the school organics program pilots. The remaining three pilots have been submitted as a Business Plan Option.

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2. Climate Adaptation

Capital Project P.02598

Saskatoon has made a commitment through the Global Covenant of Mayors to address both the causes and effects of climate change by reducing emissions and building resiliency plans for our infrastructure and services. Saskatoon, like everywhere, can expect many changes to the weather in the future; essentially it will become warmer, wetter, and wilder. In 2019, the City of Saskatoon (City) developed the Corporate Climate Adaptation Strategy which included climate projections for Saskatoon, identified risks to City operations expected because of climatic changes, and recommended actions and solutions to limit disruptions and negative impacts.

Events in 2020 such as the COVID-19 pandemic, an unprecedented snow fall event, and other noticeable climatic changes and impacts have reinforced the importance to prepare for emergency events and other impacts.

This project includes the development of a community adaptation strategy to provide support for Saskatoon with the expected climate future of Saskatoon.

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3. Traditional Land Use and Knowledge Assessment

Capital Project P.02390

Traditional knowledge is an important consideration in Natural Areas management. Other municipalities recommend that traditional knowledge assessments be completed at the outset of management planning so that results and recommendations can be meaningfully incorporated into management plans.

Traditional Land Use and Knowledge Assessments can include several components. They may collect Elder and Traditional Knowledge Keepers' oral histories about Indigenous way of life on the land, collect archival and historical information about Indigenous groups, document and map traditional land use patterns and practices, identify the impacts of local development on current communities, and results may help to minimize the impacts to traditional and other important sites. Mapping exercises may record traditional uses, identify the boundaries of the study area, illustrate the relationship between different features of the landscape, events, or the intersection of traditional and non-traditional knowledge. Specific data may include habitat, trails, roads, rivers, presence of medicinal plants, grave sites, traplines, spiritually significant areas, traditional plant resources, or ecologically sensitive areas. Results from these assessments may be used to inform management plans through a deeper understanding of the stories of a particular place, and inform current site uses that honor the sites' history.

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4. Electric Vehicle Adoption Roadmap

Based on the 2019 emissions inventory for the community, on-road vehicle transportation, including public transit, consisted of 1,094,354 tonnes of CO_2e or 29% of overall community emissions. Emissions from vehicle travel through the consumption of fuel within the city are the second highest source of emissions, next to stationary energy use from buildings.

By 2050, it is expected that 230,000 more vehicles will be on Saskatoon's roads. With this growth in mind, increased community and corporate electric vehicle (EV) use is projected to result in positive social and environmental outcomes such as improved air quality and less neighbourhood disruption due to quieter running engines. Furthermore, research points to EVs saving their users money for operating and maintenance and have an improved emissions footprint compared to gasoline vehicles.

This project will include the development of an Electrical Vehicle (EV) Adoption Roadmap that outlines the phased action plan for the adoption of electric vehicles within the City's municipal and transit fleets and encourages the adoption of private vehicles in the community.

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5. Implementing Waste Green Teams & Leading by Example 1.0

Capital Project P.01964

A culture of sustainability is one in which organizational members hold shared assumptions and beliefs about what sustainability means for their organization, where

the organization stands today in relation to that understanding, and what they are doing to bridge the gap.

This business case addresses the development of a corporate sustainability program that will aim to embed a culture of sustainability based on the portfolio approach outlined in *Embedding Sustainability into the Culture of Municipal Government: A resource for municipal change agents*. It will apply applicable practices to civic waste reduction and diversion. This sector was selected to ensure alignment with the upcoming waste diversion regulation for the Industrial, Commercial and Institutional (ICI) sector. The longer-term goal of this program will be to expand to other environmental sustainability sectors in subsequent phases.

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6. Residential Energy Efficiency and Renewable Energy Program

The Home Energy Loan Program (HELP) for the residential sector is an important first step to incentivizing private investment in energy efficiencies and renewable energy. However, further programming is needed to educate and incentivize to meet actions and targets in the Low Emissions Community Plan.

The program will be built off best practices in other jurisdictions and will complement other programs such as HELP and federal/provincial programming. The proposed initiative will include the following deliverables:

- Develop education programs that help homeowners understand their energy usage and areas for improvement.
- Offer rebates for energy audits not eligible under the federal Greener Homes program.
- Offer rebates for solar PV installations or energy efficiency measures.

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7. Solid Waste and Diversion Program Development

This business case addresses the short-term actions (2022-2023) in the Solid Waste Reduction & Diversion Plan that are currently unfunded that have not had feasibility, or development work has initiated. This Sustainability Reserve request is for the 2022 feasibility work on the following two deliverables:

- *Corporate Waste Disposal Inventory and Best Practices Research:* This feasibility work will be initiated by looking at the waste generated by the corporation as well as current policies, standards and other processes that guide decisions on waste disposal, with a focus on Construction and Demolition Waste. Several departments have already reached out to Sustainability requesting assistance with construction and demolition waste disposal specifications, suggesting that there is some demand for this kind of support, but this initial step will help establish the full scope of the project.

  A jurisdiction scan and industry review will be used to identify what options are available and what has been demonstrated to be effective. A focus will be on municipalities that are like Saskatoon in climate, size, and with facilities like what is planned for Recovery Park. This will help inform and asses the options that are considered.

- *Recycling Market Gap Analysis and Feasibility Study:* The local recycling market is not anticipated to provide all the diversion opportunities that have been envisioned in Recovery Park. This study will use information from the Recovery Park operating plan work underway to identify recycling market gaps and assess the feasibility to develop new opportunities locally, with a focus on triple bottom line benefits to the community. The material prioritizations that have been presented for the approved construction option will be used to assist in prioritization of materials.

  During this phase, initial discussions will continue to potential community partners. For example, the Saskatoon Tribal Council has expressed interest in employment opportunities for formerly incarcerated indigenous residents, which could be further explored to see if developing a new recycling opportunity would be compatible. Other opportunities may be presented through an RFQ or through collaboration with Indigenous Initiatives and Social Development.

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8. Street Garden Expansion

Capital Project P.02390

In May 2021, City Council approved: That a $60,000 capital funding request for the development of a Feasibility Study and community engagement, to further expand the garden program, be brought forward to the 2022-2023 Business Plan and Budget deliberations.

A Feasibility Analysis for Further Program Development, including Expansion of Gardening to Additional City Sites and Program Enhancements.

Additional work and resources could be directed to bring forward a feasibility analysis to further expand both the geographical area and the community program offerings for the boulevard garden program. A feasibility analysis would explore and detail how to further encourage, support, and build capacity among residents, including program expansion to additional sites, expanded education materials, demonstration Street Garden sites including remediation of degraded rights-of-way, and direct supports and incentives for residents and property owners that are currently not offered. This expanded program would also be an important part of the Green Infrastructure Strategy's Growing Community program to encourage and enable resident engagement with the Green Network.

The expansion feasibility analysis could include review and recommendations to:

- Expand the program to other types of City green spaces and develop criteria for those spaces.
- Create an enhanced education and communication program, including an expanded awareness campaign, outreach to community associations and other organizations, workshops, and planting and design guides specifically addressing unique challenges of gardening adjacent to streets.
- Outreach to groups identified during engagement that may benefit from additional support such as seniors, accessibility groups, newcomers, renters, and low-income households.

- Develop demonstration gardens that showcase best practices for gardening on rights-of-way such as site remediation, soil improvements, native plants, low water or rain gardens, and pollinator-friendly gardens.
- Develop support to residents, such as compost and mulch delivery, seeds and plants, a garden tool library, and garden design support from City staff.
- Create incentives to landlords and condo associations to permit their residents to garden on boulevards or other rights-of-way adjacent to their property.

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9. Industrial, Commercial, and Institutional (ICI) Energy Efficiency and Renewable Energy Program

The City has an important role to play in building capacity among local businesses and leading the way to a low emissions future. Establishing energy education and incentives for larger properties will help achieve community greenhouse gas (GHG) emissions targets while creating economic stimulus in Saskatoon. The Home Energy Loan Program is an important first step to reducing GHG emissions in the City and achieving goals within the Low Emissions Community Plan. However, Industrial, commercial, institutional (ICI) and multi-unit residential buildings have even more potential for GHG reduction impact.

This Project includes research, options analysis, engagement, and program design to prepare for the implementation of an energy efficiency and energy generation program targeted at the ICI sector.

The final program is expected to include:

- An incentive program such as rebates or financing to encourage the ICI sector to invest in energy efficiency and renewable energy.
- Education, training, and services such as audits, energy management support, planning, and reporting.
- Networking opportunities for businesses and industry.

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10. Deep Energy Retrofit Feasibility Study

The City owns and maintains a variety of facilities to provide civic services. The entire portfolio of buildings is 335,400m2 and subsequently they consume large amounts of energy and produce 40% of total corporate GHG emissions. Numerous energy management projects are underway to reduce consumption and improve efficiencies, however the next phase requires planning.

A Deep Energy Retrofit Feasibility Study was envisioned as the next step in planning for the future round of energy management related upgrades and retrofits for civic facilities. Deep energy projects will require additional planning and integration with typical facility renewal and asset management programs. It is directly quoted in action 2 of the Low Emissions Community plan to Perform deep energy retrofits on municipal buildings.

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11. Energy Assistance Program - SaskPower

Capital Project P.03001

A growing body of research highlights the disproportionate uptake of sustainability initiatives by higher-income households in Canadian and American municipalities. This is due, in-part, to a variety of barriers to low and moderate-income households including: energy poverty, access to credit, split incentives between landlords and tenants, participation requirements, insufficient outreach and awareness, disparities in neighbourhood amenities, infrastructure, and design, and other systemic barriers. These barriers are exacerbated by additional factors beyond income, including, for example, culture, citizenship, ability, age, gender, and fluency with the dominant language. These factors raise concerns of a growing divide, where differing abilities to adopt and benefit from sustainable solutions could further disadvantage certain communities.

SaskPower launched the Energy Assistance Pilot Program to address challenges that low-income customers face with energy poverty and barriers in investing in energy efficiency upgrades to their homes. Subsequently, the City partnered with SaskPower to ensure that their program would be offered to Saskatoon Light & Power customers as well as SaskPower customers. The program was approved for continuation for 3 years and funding was approved for the first year.

The program is available for income-qualified households and includes home visits from qualified technicians that provide a full walkthrough and energy coaching to identify and explain behaviour changes and potential savings to residents. The technicians provide a tailored report for each participating home, outlining energy savings and installation of energy-saving improvements such as LED lighting, water-saving measures like faucet aerators and showerheads, power bars, and programmable thermostats. The program will target 1,000 households annually across Saskatchewan including approximately 250 within Saskatoon and 125 within SL&P's jurisdiction.

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12. Growing Community

Growing Community is a program that encourages and enables resident engagement with the Green Network. The purpose of this Project is to increase public awareness and opportunities to engage with their local green spaces through a Green Network education program and community stewardship framework. This Sustainability Reserve Request is for the Growing Community School Program component.

Through joint use agreements between the City and school divisions, there is an opportunity to incorporate green infrastructure into school yards and develop education programs around this. This work has been supported by public engagement results. For example, some teachers have expressed interest in planting traditional species such as tobacco or willow in school yards and having their students harvest these as part of experiential learning programs. The Green Network school program will provide a school ground education program that encourages outdoor learning about green infrastructure. Many of Sustainability's current school programs are delivered during the school year. There are opportunities to increase outdoor summer programming, particularly at community schools where there are limited summer opportunities for

students. Additionally, site specific education opportunities at natural and naturalized areas are needed to enhance place-based learning.

Project Objectives:

- To work with the Public and Catholic school systems, and any external partners, to develop a school program for green infrastructure stewardship including biodiversity and food production.
- To begin outreach with the University of Saskatchewan, identify opportunities, and refine priorities to coordinate on university student projects, field trips, and research.
- To coordinate with other City work groups such as Parks, Planning and Development, Community Development, and Saskatoon Water in any schoolground work that will affect their operations (e.g. joint use agreements with school divisions).
- To coordinate with other City groups (e.g. Parks) and external partners (e.g. Meewasin, Wanuskewin) in connecting school-based lessons to natural area field trips.
- To implement a school program pilot at 1-2 schools and develop recommendations for next steps and possible widespread implementation.

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13. High Performance Existing Building Program

The City owns and maintains a variety of facilities to provide civic services. The entire portfolio of buildings is 335,400m2 and subsequently they consume large amounts of energy and produce 40% of total corporate GHG emissions. Existing buildings make up the largest component of the City's overall building stock and facility associated GHG emissions.

A green building certification pilot for existing City-owned facilities provides a pathway for the development of policies, management practices, baselines, benchmarking, and ongoing evaluation of performance. Energy consumption reductions and maintenance of savings over time are expected from this type of program.

A pilot program of four buildings is the first step to a long-term program of continuous improvement and performance management tracking for civic facilities. Once the pilot is complete the City will have policy documents, templates, data, management practices, etc. in place that can be used in additional civic facilities in 2024-onward.

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14. Solar Administration Review: Photovoltaic (PV) Approvals on Existing Buildings

Residential and commercial rooftops are designed to meet Canada's National Building Code (Building Code) at the time of construction, which sets a minimum load-bearing capacity for all new construction. Installing solar photovoltaic (PV) technology on existing building rooftops adds additional load to the structure, often requiring building and development permits from the municipality. Obtaining these building permits results in added time and cost to projects.

Simplifying the permitting process for existing buildings, while still ensuring that safety and quality standards are met may reduce costs to both the building owner and the City and improve uptake for solar PV system installations in Saskatoon.

The project deliverables are the following:

- Complete a review of the administrative processes required to complete solar PV installation on private property.
- Identifying opportunities to optimize the reviewing and permitting process to minimize administration time and complexity.
- Identifying opportunities to reduce building design fees and engineering costs for customers (such as implementing a standard engineering design).
- Engagement with key stakeholders and customers directly impacted to understand current challenges and barriers.
- Design simplified procedures and tools to complement the streamlined processes and guide customers through the administration process.

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15. Grey to Green

Grey to Green is a program that increases the adoption of green infrastructure in urban areas, integrated and alongside traditional infrastructure assets.

The Sustainability Reserve Request is for two deliverables:

Inventory and Prioritization of Grey to Green Opportunities – This deliverable will identify and prioritize opportunities to increase the adoption of green infrastructure and climate resiliency at the City. Work will include:

- A review and prioritization of existing and planned work, programs, projects, incentives, administrative procedures, standard work documents, and infrastructure specifications that could be updated to include green infrastructure or adaptation outcomes.
- A scan of existing grey assets and prioritization of opportunities for improvements or retrofits to those assets.
- Researching best practices and connecting with experts.
- Prioritizing projects for 2022-2023 implementation.
- Developing business cases and designing pilots for prioritized projects for 2024-2025.

Bird Friendly Pilot and Voluntary Guidelines – This deliverable will pilot a bird-friendly retrofit on a civic facility, procure the CSA standards for voluntary use, and provide staff and community educations on the voluntary guidelines. A subsequent phase of the grey to green program will assess mandatory requirements for bird-friendly design.