



Water Conservation Strategy

What We Heard – Selecting Preferred Initiatives to Prioritize
February 24, 2021



Engagement Summary

The City of Saskatoon is developing a long-term Water Conservation Strategy that will focus on all water uses and users including residential; the industrial, commercial, and institutional sectors; the City itself; and water used indoors and outdoors. The Water Conservation Strategy aims to develop best practices, generate, and gain approval for programs that could lead to incentive programs for residents and businesses, develop educational materials, and create the potential for changes to policies/regulations. From February 2020 – March 2021, Administration is engaging stakeholders on relevant components of a Water Conservation Strategy. Based on what we heard from stakeholders, in addition to further research and internal considerations, Administration will develop a comprehensive strategy that will be presented to City Council in 2021.


The second phase of the engagement strategy was designed to inform the following engagement goals for the development of the Water Conservation Strategy:

- Select preferred initiatives to prioritize in the Strategy
- Identify public preference for each initiative to help inform selection of preferred initiatives to prioritize and Plan Options Identification
- Further identify potential impacts of water conservation initiatives

A total of 555 respondents participated in both an industry and public survey within this current phase of engagement. Program preferences that emerged from the online surveys are discussed in this section, including:

Importance of Water Conservation

Respondents from both the industry and the public strongly support (79% and 66% respectively) water conservation being important to their business or home. Through their comments, numerous participants provided their support for the City looking at improving water efficiency for Saskatoon as a whole. Although results differed slightly between industry and public participants, the top five reasons for conserving water amongst both communities were as follows:

- 
1. Reducing unnecessary water usage
 2. Caring for the environment
 3. Reducing my water bill
 4. Saving energy
 5. Reducing greenhouse gas emissions

Awareness and Barriers

When asked whether they are aware of actions they can take to reduce their water consumption/bill, the public results were split between somewhat (49%) and yes (43%), with only 5% stating they were unaware.

Out of the proposed and suggested barriers that hold them back from making their homes or business more water efficient, participants most frequently identified the following as being challenges:



1. I don't know if I currently use too much water (41%)
2. Upgrades are too costly (24%)
3. I have already made my home/business water efficient (22%)
4. I don't know what to do and there are not enough resources (16%)
5. There are few funding programs and opportunities that help me (16%)

Comments provided by participants expanded on barriers to uptake. Numerous individuals identified that as consumption decreases household water rates increase, thereby providing no incentive to conserve. Additional barriers were found in the rental community, where it is not cost-effective for renters to renovate without the participation/contribution from landlords and there is no individual accountability in condos due to shared meters. Other comments included confusion with why water rates and charges are high, barriers with equity groups, and converting lead pipes and outdated water systems.

Participants identified numerous opportunities to combat these barriers, which included providing reliable sources of information on what products work, providing daily usage records, aggressively targeting industry and large consumers before individuals, and maintaining transparency in water billing/actual administration costs.

Education and Incentives

When asked what types of incentives would increase their likelihood of making improvements, both industry and public participants ranked the following in order of their support:



1. Education on water saving improvements
2. Rebates provided at the till when purchasing from local suppliers
3. City providing fixtures at no-cost
4. Rebates provided through an application process
5. Providing home and business audits to identify water saving opportunities
6. Rebates provided to installers and distributors

All respondents identified the following proposed messages as being important to be included in future education programs and resources:



1. How to conserve water in your home
2. How to conserve water in your yard
3. How to save money on your water bill
4. How to find leaks in your home, yard and business
5. How does water use relate to climate change and our environmental footprint

When asked what were the best ways to educate themselves and their families on water conservation measures, participants identified the following in order of importance:




1. On their water bills
2. Web-based tools to view your water use
3. Online savings calculators and budgeting tools
4. Checklists
5. School programming and resources

Comments provided by respondents also identified that by making their water bills more readable and easier to understand, such as expressing water use in units common to their water meters ($\$/m^3$), would provide an overall better understanding of whether they need to conserve water.

Indoor Residential Programs

Out of the proposed indoor residential programs, both industry and public participants identified their interest in the following programs:

- 
1. Water-use education program
 2. Toilet rebate
 3. Showerhead rebate and give-away
 4. Water audit and coaching program

Numerous respondents expressed their support for the incentive programs (i.e., rebate, give-aways, etc.) for making it easier to make upgrades to their home, especially for those that are unable to afford the initial costs. The increased support for toilets over showerheads was further explained in the comments, with numerous individuals indicating the greater importance in personal preference when selecting showerheads due to the diversity of options.

Suggestions for additional indoor residential water conservation programs included home-insurance rebates, leak detection tools, individual meters to track water consumption for condos/multi-unit dwellings, upgrading home water lines (i.e., lead pipes), and programs that focus on equity and low-income groups.

From the comments provided the following topics were provided for consideration:

Education: extremely important and participation will be minimal unless there is a compelling reason for why water conservation is important

Fiscal responsibility: the most commented on theme, could taxpayer dollars be allocated towards more important programs and what will be the associated administration costs for all proposed programs?

Information: there are gaps in current information, such as what percent of homes do not have low-flow showerheads or toilets installed already, what difference does such a small reduction (ex. 2.4%) make on overall water efficiency?

Low-flow apprehension: not as simple of a solution, it was suggested that low-flow toilets are more difficult to maintain/fix, there is apprehension to switch to low-flow showerheads due to their inferior performance

Low income considerations: the listed programs are tailored towards middle-class families and leave out the financially disadvantaged/marginalized groups within our community

Renters: there is no incentive for the tenant to participate since the benefits stay with the property

Outdoor Residential Programs

Out of the proposed outdoor residential programs participants identified their interest in the following programs:



1. Rain barrels
2. Low-water landscaping program
3. Irrigation community-based education program
4. Irrigation system upgrade rebates program
5. Outdoor watering restrictions

Suggestions for additional outdoor residential water conservation programs included providing educational material on how to promote better outdoor water use, promoting xeriscaping, requiring new builds to follow new water efficiency standards in landscaping, and focussing on new technologies in irrigation (i.e., timers, improved controllers, drip irrigation, etc.). Participants provided the following comments regarding the proposed outdoor residential programs, summarized by theme:

Awareness: is crucial to increase uptake amongst all demographic groups so the City needs to build awareness that these kinds of programs exist

List of installers: the City should provide a list of certified installers to perform landscaping and irrigation installations/upgrades

Promoting biodiversity: discourage the traditional front yard and promote more biodiversity while also discouraging installing pavement as a form of low maintenance

Restrictions are not effective: concern surrounding the political viability of imposing water restrictions, could prove to be problematic if too punitive for pool owners and gardeners that need the additional water for food crops, generally viewed as negative by the general public yet some participants identified their support for restrictions

Scheduled watering: many participants supported the idea of scheduled watering (ex. watering on odd or even days)

City of Saskatoon Programs

Out of the proposed City Internal Programs, participants identified their interest in the following programs in order:



1. Maximize watering efficiency in parks
2. Maximize efficiency of facilities and operations
3. Maximize water efficiency of spray pads, paddling pools and pools
4. Develop a grey-water strategy
5. Increase naturalized areas in parks

Suggestions for additional City corporate practises and water conservation programs included better redirecting runoff, investing in green infrastructure, restricting watering of public spaces to evenings, using timers/sensors in spray parks, and using storm/river water to irrigate parks. Numerous participants identified the need for the City programs to be a priority considering the greater amount of water consumed compared to residential neighbourhoods. Many participants also expressed their support for the proposed internal programs above the other program types. Additional comments provided were as follows, summarized by theme:

Costs: what are the associated costs to the taxpayer for each of these programs?


Leading by example: numerous participants identified the need for City areas (i.e., parks, golf courses, City spaces, University grounds, etc.) to be a model for residents to follow

Naturalized parks: there is strong support for more naturalized parks consisting of native plants, more nature is always better, should focus on new parks rather than those pre-existing, still provide areas for families to use freely, parks should not get weedy though

Overwatering parks: many respondents brought forward examples of parks being watered during rainy periods or being overwatered to the point of creating significant runoff, participants called for timed/smart water sensors/controllers to be installed, there is a lot of public frustration surrounding this issue

Industrial, Commercial and Institutional Programs

Out of the proposed programs industry participants ranked the following in order of their support for the individual programs:

- 
1. Irrigation system assessments, training, and accreditation
 2. Audit and fixture incentive program / Irrigation system upgrade rebate program
 3. Once-through cooling replacement incentive program
 4. Capacity buyback program
 5. Outdoor watering restrictions

Industry participants identified numerous issues with outdoor watering restrictions including their difficulty to enforce and communicate to the public. Numerous respondents called for equal participation from the industry, so that measures being taken by the City and industry are collaboratively and consistently communicated to the public.

Top Programs

Participants were asked to rank all of the proposed programs by identifying the top three programs they feel the City should prioritize. The following is a summary of the results:

Table 1: Summary of Top Programs

Program	Public (%)	Industry (%)
Maximize watering efficiency in parks	38	33
Residential toilet rebate	35	37
Develop a grey-water strategy	33	19
Increase naturalized areas in parks	28	11
Maximize efficiency of City facilities and operations	22	26
Residential water-use education program	21	19
Outdoor watering restrictions	17	11
Residential showerhead rebate and give-away	17	11
Residential water audit and coaching program	17	4
Residential rain barrels	17	n/a
Residential low-water landscaping program	16	22
Residential irrigation system upgrade rebates program	15	11
Maximize water efficiency of spray parks, paddling pools and pools	14	30
Residential irrigation community-based education program	5	0
Community gardens water-reduction support program	2	4
ICI Audit and fixture incentive program	n/a	19
ICI Capacity buyback program	n/a	7
ICI Irrigation systems assessments, training, and accreditation	n/a	7
ICI Irrigation system upgrade rebate program	n/a	15
ICI Once-through cooling replacement incentive program	n/a	7

*n/a refers to the option not being included within either the Industry or Public surveys

Final Comments and Common Themes

When asked whether they were more likely/willing to conserve water in their home or business considering the information and program options identified in this survey, a majority of participants from the industry and public indicated yes they were more likely (73% and 54% respectively).

Overarching themes from the comments provided by participants are summarized below:

Balancing conflicting needs: there will be need for flexibility in the program to balance the needs of abilities, equity, public health, and sustainability by avoiding rigid program dynamics (ex. the need to rinse recyclable containers)

Billing: the impression is that current billing system is counter productive and ineffective for conservation programs by not stating usage in more understandable/comparable terms

Conflicting views on grass: many participants feel community values should shift away from valuing green grass considering the amount of water demands for each individual property, however there were some respondents that expressed the need to continue watering their lawns due to the aesthetic appeal, there were opposing viewpoints shared within the comments throughout the survey

Costs: homeowners are already faced with higher taxes and increasing utility bill costs, most people do not recognize the value in spending more money upfront to conserve over a period of time,

advertise costs as investments that will result in future savings, especially difficult for larger families with greater water demands

Education: do education programs only work for the people who are already listening, how do these programs address those that are unmotivated to change their behaviours, approach school systems and children to start teaching at a young age

Equal: if programs are provided residentially then equivalent programs should be made available for industry and businesses as well, in order for the Strategy to succeed there needs to be participation from all sectors not just residential participants

Food Security: there is potential for the costs for gardeners and food producers to increase due to the greater costs in watering their gardens

Frustration with rate increases: unless there stops being what seems to be a direct relationship between water consumption going down and prices going up then there is no incentive to save water

Funding: many participants expressed that taxes should not increase to fund the proposed programs, participants also recognized that in order to achieve the outcomes suggested the City will need to fund all proposed initiatives sufficiently

Grey water strategy: there is an interest in reviewing current policies/laws/standards to provide the ability for homeowners to install grey water systems

Lead by example: the City should lead by example in saving water internally first, the City should be a model for residents to follow

Low-income households: often do not have an opportunity to participate and implement changes, support and incentivize low-income participants through the proposed programs

Renters and landlords: landlords/condo boards control water and are not tracking individual use, there is no incentive for the tenant to participate since the benefits stay with the property, the program must work for both parties to promote greater incentives for the rental community as a whole

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1 Background

The City of Saskatoon (City) is developing a long-term Water Conservation Strategy that will focus on all water uses and users including residential; the industrial, commercial, and institutional sector; the City itself; and water used indoors and outdoors. There are many reasons to conserve water, but three in particular stand out:

1. Reducing greenhouse gas emissions, which the City of Saskatoon has committed to reduce its own emissions by 40% (below 2014 levels) by 2023 and water-related emissions make up about a third of overall City emissions.
2. Creates the potential to better manage and plan—and possibly to defer or avoid—capital expenditures that may otherwise be needed to add capacity to Saskatoon’s water and wastewater systems.
3. Increase system resilience and maximize capacities to deal with intensifying climate change.

The Water Conservation Strategy aims to develop and gain approval for programs that could lead to incentive programs for residents and businesses, develop best practices and educational materials, and create the potential for changes to policies/regulations. Program outcomes include identifying the benefits and impacts of water conservation initiatives, developing a prioritized list of recommended water conservation initiatives, and determining how they should be implemented. For these and other reasons, City Administration are engaging internal and external stakeholders as well as the general public in the development of a long-term strategy.

The Water Conservation Strategy supports numerous sustainability initiatives within the City of Saskatoon and is explicitly included in the Low Emission Community Plan. It is intended that the strategy will incorporate an Integrated Water Management approach and Triple Bottom Line framework, as well as produce a long-term planning document highlighting the benefits of conservation and efficiency, the potential impacts, and featuring an integrated, prioritized list of recommended water conservation and efficiency initiatives, a multi-year workplan, and cost estimates. This will be followed up a step-by-step map for securing stable funding, staffing, and other resources; details on how to implement specific initiatives; and information on scaling and the effects on costs and performance.

From February 2020 – March 2021, Administration is engaging stakeholders on relevant components of a Water Conservation Strategy. Based on what we heard from stakeholders, in addition to further research and internal considerations, Administration will develop a comprehensive strategy that will be presented to City Council in Spring 2021.

1.1 Strategic Goals

This project supports the Strategic Goal of Environmental Leadership and Sustainable Growth, contributing to reducing our consumption of water and energy.

1.2 City Project Team

- Jeanna South, Director, Sustainability
- Amber Weckworth, Manager, Climate, Strategy and Data, Sustainability
- Genevieve Russell, Special Project Manager, Sustainability
- Gabriella James, Accounting Coordinator, Finance

What We Heard – Selecting Preferred Initiatives to Prioritize

- Megan Quintal, Marketing Consultant, Communications & Public Engagement
- Kenton Lysak, Engagement Consultant, Communications & Public Engagement

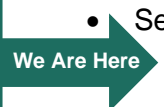
1.3 Spokesperson(s)

- Jeanna South, Director, Sustainability
- Amber Weckworth, Manager Climate, Strategy and Data, Sustainability

2 Summary of Engagement Strategy

The following engagement goals were identified to help inform development of a Water Conservation Strategy:

- Identify benefits and barriers and explore opportunities to enhance initiatives
 - Identify benefits and barriers to water conservation initiatives in Saskatoon.
 - Of the potential initiatives, identify opportunities to enhance benefits and mitigate barriers.

 We Are Here	<ul style="list-style-type: none">• Select preferred initiatives to prioritize in the Strategy<ul style="list-style-type: none">○ Identify public preference for each initiative to help inform selection of preferred initiatives to prioritize and plan options identification
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- Close the Loop
 - Share relevant components of the Water Conservation Strategy with stakeholders to close the loop and provide opportunities to identify any red flags.
 - Validate key findings and test with wider stakeholder base.

2.1 Stakeholder Groups

Four stakeholder groups were identified with the potential to be impacted by the Water Conservation Strategy. These groups include:

2.1.1 Low Emissions Community Plan Stakeholder Groups

- Organizations engaged during the development of the Low Emissions Community Plan were identified as stakeholders to continue engagement with on future Low Emissions Community Plan initiatives, including the Water Conservation Strategy. These Low Emissions Community Plan Stakeholder groups include:
 - Business Improvement Districts
 - Greater Saskatoon Chamber of Commerce
 - North Saskatoon Business Association (NSBA)
 - Saskatoon & Region Homebuilders Association (SRHBA)
 - Federated Cooperatives Limited
 - Nutrien
 - University of Saskatchewan
- If the identified stakeholders showed interest in participating in the engagement program, they were assigned to the most relevant stakeholder group described below.

2.1.2 Subject Matter Experts

- Internal and external stakeholders with experience or knowledge related to water conservation, retrofits, water costing and both indoor and outdoor water usage. These included industry experts such as:
 - Industry professionals: the Saskatoon and Region Home Builders Association, general contractors, plumbers, plumbing equipment suppliers, irrigation installers, building operators, and the United Association of Plumbers and Pipefitters Local 179
 - Community organizations: Saskatchewan Environmental Society, Meewasin, Partners For the Saskatchewan River Basin, Safe Drinking Water Foundation, Saskatchewan Environmental and Industry Managers Association, Saskatoon Energy Management Taskforce

- Academic institutions: Global Institute for Water Security, Global Water Futures
- Water managers from other jurisdictions or the industrial, commercial, and institutional sectors
- Individuals recognized for innovation in water conservation technologies or programming.

2.1.3 Key Stakeholder Groups

- Individuals and groups who will potentially be impacted by the implementation of Water Conservation programming in Saskatoon. The following groups/organizations were identified:
 - Equity groups
 - Indigenous residents and organizations
 - Low-income residents and organizations
 - SaskWater
 - Saskatoon Water

2.1.4 Water Consumers and Potential Program Users

- Stakeholder groups who currently use water and have the potential to participate in Water Conservation programming once implemented. Target audiences for engagement under this category include:
 - CHEP Good Food and Community Garden Leaders
 - Developers
 - Golf Courses (Internal)
 - Industrial, commercial, and institutional sector (i.e., businesses and organizations)
 - Meewasin
 - Parks department (Internal)
 - Property managers
 - Recreation and Community Development (Internal)
 - Renters of Saskatoon and Area
 - Residents (i.e., renters, homeowners and youth)
 - Saskatchewan Landlords' Association
 - Saskatoon Food Bank and Learning Center

A summary of stakeholder groups, level of engagement, engagement objectives, engagement goals and engagement activities completed are provided below.

Table 2: Summary of Engagement Strategy

Phase	Stakeholder	Level of Participation	Objective	Engagement Goal	Potential Activities
0	Low Emissions Community Plan Stakeholders	Involve	I need to understand how citizens will be affected by a decision.	Determine level of interest of Low Emissions Community Plan Stakeholders and how they would like to be engaged.	Meetings/Phone Calls/Emails
1	Subject Matter Experts, SaskWater	Consult	I need to understand how citizens will be affected by a decision.	Identify benefits and barriers and explore opportunities to enhance initiatives.	Meetings/Phone Calls/Emails
1	Key Stakeholders Water Consumers	Involve	I need to understand how citizens will be affected by a decision.	Identify benefits and barriers and explore opportunities to enhance initiatives.	Meetings, Workshops Survey (Optional)
2	Key Stakeholders Water Consumers, Subject Matter Experts	Consult	I need comments to inform a decision.	Select preferred initiatives to prioritize in the Strategy	Survey, Meetings, Workshops
3	All Stakeholders	Consult	I need comments to inform a decision.	Feedback on draft strategy.	Feedback Form, Emails, Meetings

3 Engagement Activities

Industry and Public Surveys were used to collect feedback to inform the development of the Water Conservation Strategy.

3.1 Industry Survey

The Administration conducted an online survey for industry members from December 1st, 2020 to December 21st, 2020. The industry survey comprised a total of 46 closed- and open-ended questions to identify stakeholder preference for potential programs and components. Respondents were able to write-in an “other” preference for numerous questions and provide explanations for their preferences.

The industry survey closely mirrored the public survey, with additional industry-specific questions on the industry, commercial and institutional sector programs.

3.1.1 Intended Audience

The Industry Survey was created for installers, general contractors, water managers, businesses, and building owners operating within the City of Saskatoon.

3.1.2 Marketing Techniques

The survey was promoted through an email invitation distributed to industry members via their associations and through the contact list for the project. The Engage page was also used to encourage industry members who did not receive the survey through our distribution list to contact the Project Manager to be sent a survey link.

3.1.3 Analysis

The participant-proposed programs were analyzed for the following indicators:

- Most popular program combinations (count)
- Thematic analysis of reasoning offered for inclusion of certain program component selections over others.
- Look for program component selections that might improve accessibility and uptake and for those that reduce accessibility and uptake.

Mixed methods were used to analyze the data. Qualitative methods included the thematic analysis and open coding of responses.

3.1.4 What We Heard

Demographics

A total of 28 respondents participated in the Industry Survey. The largest group of respondents were involved in the environmental sector (28%), followed by real-estate or property managers (24%), and tradespeople (24%). Other groupings included:

Table 3: Industry Survey Representation


Sectors Represented	Participants (%)
Environmental Sector	28
Real estate or property management	24
Trade (e.g. plumbing, irrigation, etc.)	24
Service and hospitality industry	20
Processing and manufacturing	8
Professional or technical consulting	8
Business or Association	8
Agricultural	4
Commercial construction	4
Residential construction	4

The vast majority of participants operate in Saskatoon (92%). 27% of participants owned or managed commercial or industrial property in Saskatoon and 27% were currently a member of a Business Improvement District or business association, including:

- Broadway Business Improvement District
- Chamber of Commerce
- Downtown YXE
- North Saskatoon Business Association
- Saskatoon Home Builders Association
- Mechanical Contractors Association
- Sutherland Business Improvement District

Importance of Water Conservation

79% of participants stated conserving water is important to their business or work. Out of the options provided, participants identified their main reasons for conserving water as follows:

- 
1. Caring for the environment (76%)
 1. Reducing unnecessary water usage (76%)
 3. Reducing my water bill (52%)
 4. Saving energy (48%)
 5. Reducing greenhouse gas emissions (36%)


Training and Accreditation Programs

Most of the respondents were unaware (42%) of any training or accreditation programs in their respective fields; however, some stated they were aware (27%) of the following programs:


- Building Owners and Managers Association
- City of Saskatoon
- International Facility Management Association
- Irrigation Association has numerous programs
- Leadership in Energy and Environmental Design – Green Associate
- Vendor/product-specific training
- WaterSense

Education and Incentives


Out of the proposed incentives, respondents ranked the following in order of their potential to increase their customers likelihood of making improvements:

- 
1. Education on water saving improvements (85%)
 2. Providing home and business audits to identify water saving opportunities (65%)
 3. Rebates provided to installers and distributors (62%)
 4. City providing fixtures at no-cost (58%)
 4. Rebates through an application process (58%)

Since stakeholders previously identified education as being critical for the success of the program, participants were asked what messages they felt were important to include in future education programs. Out of the proposed messages, the following were identified in order of importance:

- 
1. How to save money on your water bill (85%)
 2. How to conserve water in your yard (77%)
 3. How to conserve water in your home (69%)
 4. How to find leaks in our homes, yards and businesses (65%)
 5. How water use relates to climate change and our environmental footprint (62%)
 6. How an irrigation or plumbing system works (50%)
 6. Understanding your water bill (50%)
 7. The importance of water to the many cultures represented in Saskatoon (48%)
 8. The story of water – where it comes from and where it goes (46%)
 9. The benefits of naturalized and water efficient parks (42%)
 10. Implications of not following water conservation methods (10%)
 11. Grey water use (10%)

When asked what the best ways were to educate their staff and clients on water conservation measures, participants identified the following in order of importance:

- 
1. Online savings calculators and budgeting tools (65%)
 2. On their water bills (62%)
 3. Audits and walkthroughs (58%)
 3. Checklists (58%)
 3. Web-based tools to view water use (58%)
 4. School programming and resources (50%)
 5. Website/app (46%)
 6. Profiling success stories (39%)
 7. Demonstrations at public events and informational booths (31%)
 7. Public pamphlets (31%)
 8. Awards, games, and competitions (23%)

Industrial, Commercial and Institutional Programs

Out of the proposed programs, participants ranked the following in order of their support for the individual programs:

1. Irrigation system assessments, training, and accreditation (24%)
2. Audit and fixture incentive program (23%)
2. Irrigation system upgrade rebate program (23%)

3. Once-through cooling replacement incentive program (21%)
4. Capacity buyback program (18%)
5. Outdoor watering restrictions (15%)

Participants identified numerous issues with outdoor watering restrictions, including their difficulty to enforce and communicate to the public. One participant questioned whether water rates would increase if water conservation programs were effective.

One suggestion for additional programs to consider was the recycling of water, such as grey water irrigation. The majority of respondents were unaware of any cross-promotional opportunities with current or planned programs in other organizations; however, some respondents identified the following opportunities:

- Building certification programs
 - Building Owners and Managers Association
 - Leadership in Energy and Environmental Design
- City of Saskatoon programs
- Irrigation Association Irrigation Auditors Course
- Safe Drinking Water Foundation’s educational programming
- Saskatchewan Environmental Society Building Operator Training
- SaskPower Walk-Through Assessments

Indoor Residential Programs

Out of the proposed indoor residential programs, participants identified their interest in the following programs in order:

1. Water-use education program (26%)
2. Toilet rebate (24%)
3. Water audit and coaching program (22%)
4. Showerhead rebate and give-away (20%)

Suggestions for additional indoor residential water conservation programs included:

Home insurance rebates: incentives provided in conjunction with online self-monitoring systems

Large volume discounts: rebates for low-flow showerheads and toilets can either be provided directly to the City or distributed to residents via a coupon attached to water bills, reduces investment costs to the City and provides an easy means for residents to participate in the program

Leak detection: using automated meters to normalize detecting leaks

The majority of participants (92%) were unaware of any cross-promotional opportunities with other current or planned initiatives with other organizations; however, some participants identified “Flo by Moen” for offering incentives and the Safe Drinking Water Foundation for their educational information.

Participants provided the following comments regarding the proposed indoor residential programs, summarized by theme:

Implementation: how would the program ensure the showerheads/toilets are installed properly

Incentives: coaching programs will not have as strong of an impact unless they are tied to a financial incentive

Older neighbourhoods: new home building codes already have water-use fixture requirements

Scale: programs could be especially effective if promoted to landlords owning numerous housing units or hotels where many residences could be converted all at once

Technologies: meters are available that help identify where water is used in a home or business

Outdoor Residential Programs

Out of the proposed Outdoor Residential Programs individuals identified the following in order of their weighted averages:

1. Irrigation community-based education program (40%)
2. Irrigation system upgrade rebates program (36%)
3. Low-water landscaping program (32%)

There were no suggestions for additional programs or cross-promotional opportunities identified by the participants.

City of Saskatoon Internal Programs

Participants identified their support for the following internal programs, ranked by their weighted averages:

1. Maximize efficiency of facilities and operations (38%)
2. Maximize water efficiency of spray parks, paddling pools and pools (37%)
3. Maximize water efficiency in parks (36%)
3. Develop a grey-water strategy (36%)
4. Increase naturalized areas in parks (18%)

One suggestion for additional internal programs included using direct watering from the river instead of treated water.

Ranking Programs

Participants were asked to identify their top three programs that they felt the City should prioritize, which included the following ranking:

Table 4: Industry Ranking of All Proposed Programs

Program	Responses (%)
Residential toilet rebate	37
Maximize watering efficiency in parks	33
Maximize water efficiency of spray parks, paddling pools and pools	30
Maximize efficiency of City facilities and operations	26
Residential low-water landscaping program	22
Audit and fixture incentive program	19
Residential water-use education program	19
Develop a grey-water strategy	19
Irrigation system upgrade rebate program	15
Outdoor watering restrictions	11
Residential showerhead rebate and give-away	11
Residential irrigation system upgrade rebates program	11
Increase naturalized areas in parks	11
Capacity buyback program	7
Irrigation systems assessments, training and accreditation	7
Once-through cooling replacement incentive program	7
Residential water audit and coaching program	4
Community gardens water-reduction support program	4
Residential irrigation community-based education program	0

Interest and Final Comments

The majority of participants (73%) indicated they were more likely/willing to conserve water in their home or business considering the information and program options that were identified in the survey.

The following comments were provided on the overall Water Conservation Strategy:

Active: many participants identified themselves as already being actively involved in water conservation in their professional field or business

Financial: there needs to be a financial impact for people to change behaviours in order to increase the success of the programs

Focus: areas that have the greatest impact should be focussed on

Using new technologies: will help the program elevate quickly in identifying leaking home fixtures, how much water is used and when the water is being used

Green Infrastructure

The majority of participants were unaware (69%) of the City’s Storm Water Management Credit Program and have not used the program to install green infrastructure on their properties (92%).

Out of the identified and suggested barriers to implement green infrastructure projects on their properties, participants identified the following as most important:

1. Financial constraints (38%)
2. Difficult to retrofit (23%)
3. Site constraints (19%)
4. Unsure how to install these features (9%)
5. Not allowed by current regulations (4%)
6. Pest issues (2%)
6. Unaware of Programs (2%)

Results from participants identifying their preference for additional green infrastructure incentive programs were as follows:

1. Rebates, tax incentives, and financing (23%)
2. Additional storm water fee discounts (20%)
3. Grant programs (18%)
4. Development and redevelopment incentives (16%)
5. Awards, recognition, and certification programs (11%)
6. Storm Water Credit trading (11%)

3.2 Public Survey

The Administration conducted an online survey for the general public from December 1st, 2020 to December 21st, 2020. The survey comprised a total of 33 closed- and open-ended questions to identify their preferences for potential programs and components. Respondents were able to write-in an “other” preference for numerous questions and provide explanations for their preferences.

The Public Survey closely mirrored the Industry Survey, with additional public-specific questions.

3.2.1 Intended Audience

The Public Survey was created for Subject Matter Experts, Key Stakeholder Groups, and Water Consumers and Potential Program Users.

3.2.2 Marketing Techniques

A variety of marketing techniques were employed to reach the intended audience.

1. City Website
 - a. Updates to the Engage Page were made to encourage participation in the online survey
 - b. An article promoting the survey was published on MyCity and the Monday eblast
2. Social Media
 - a. The social media campaign, which ran from December 1st – 21st, included Facebook and Twitter ads promoting the survey. An Instagram story with a clickable link was also used to promote the survey. All paid social media ads used location targeting
3. Digital
 - a. Online banner and display ads were also used, targeted to Saskatoon
4. Email
 - a. Personalized emails were sent to organizations and community members asking them to share the information with their members
5. Radio Ads

- a. Radio ads ran from December 1st – 21st on local radio stations (Rawlco and Saskatoon Media Group) directing listeners to the Engage Page and public survey
- 6. Print Ads
 - a. A 1/8 colour ad was printed in the Saturday paper mid-way through the survey period

3.2.3 Analysis

The participant-proposed programs were analyzed for the following indicators:

- Most popular program combinations (count)
- Thematic analysis of reasoning offered for inclusion of certain program component selections over others.
- Look for program component selections that might improve accessibility and uptake.

Mixed methods were used to analyze the data. Qualitative methods included the thematic analysis and open coding of responses.

3.2.4 What We Heard

Demographics


A total of 527 respondents participated in the Public Survey. The largest group of respondents were residential homeowners (89%), followed by participants that rent property (10%). Other groupings included:

Table 5: Public Survey Representation

Sectors Represented	Participants (%)
Residential homeowners	89
I rent the property I currently reside or have a business in	10
I own or run a business that owns the building it operates in	3
Property manager for a multi-unit residential property	2
I own a rental property	2
Property manager for an industrial, commercial or institutional business property	1
Other	1

Importance of Water Conservation

The majority of participants identified that conserving water is important in their home or business (66%), with 28% claiming it was somewhat important and 6% not. Out of the options provided, participants identified their main reasons for conserving water as follows:

- 
1. Reducing unnecessary water usage (70% of respondents)
 2. Reducing my water bill (66%)
 3. Caring for the environment (65%)
 4. Saving energy (37%)
 5. Reducing greenhouse gas emissions (31%)
 6. Conserving water for the future (5%)
 7. Making water and people’s access to it a human right (2%)
 8. Combat environmental events (2%)
 9. Thinking of others downstream (1%)


Numerous participants provided comments regarding their desire to adopt water efficiency measures within their home or business.

“Honestly I'm guilty of not really thinking about my water usage. For each time I ran the sprinkler for no other reason but to let my grandchildren or dog play in the water I feel just terrible. I would prefer to be part of the solution rather than adding to the problem as I currently am. I'm guilty of taking our water for granted.”

Awareness and Barriers

When asked whether they are aware of actions they can take to reduce their water consumption/bill, the results were split between somewhat (49%) and yes (43%) with only 5% stating they were unaware.

Out of the proposed and suggested barriers that hold them back from making their homes or business more water efficiency, participants identified the following as being the most important:

- 
1. I don't know if I currently use too much water (41%)
 2. Upgrades are too costly (24%)
 3. I have already made my home-business water efficient (22%)
 4. I don't know what to do and there are not enough resources (16%)
 5. There are few funding programs and opportunities that help me (16%)
 6. Water conservation is not as important as other priorities I have (15%)
 7. My current needs are already being met (11%)
 8. I rent my home or place of business (9%)
 9. There are too many upgrades for me to consider (9%)

The following comments were provided by participants regarding the barriers associated with water conservation:

Confusion: why are bills and service charges so high?

Costs: costs of water are so low that there is no incentive to be more efficient

Equity and accessibility: considerations must be made in order to identify and resolve barriers associated with accessibility, equitable considerations must be made in order to promote greater diversity in future participants

Greenery: numerous participants identified water being essential for gardens, plants and City trees, which are very important to residents

Lack of promotion: not promoting the financial nor environmental benefits to residents

Outdated systems: lead pipes require water to be run through the system regularly to have clean drinking water, limited capacity for onsite rainwater storage

Restrictions: regulations currently prevent composting toilets, reusing non-potable water and other technologies

Renters: it is not cost-effective for renters to renovate without the participation/contribution from landlords, incentives for renters should exist, no individual accountability in condos due to shared meters, numerous hoops that prevent renters from participating

Water rates: currently favours increased consumption or provides no incentive to conserve, less consumption translates into higher water bills for residents, every time steps are taken to reduce water the associated costs increase, should be charged based on individual consumption alone

Worry: that these incentive programs will inevitably increase taxes and cost the average resident more

Participants identified numerous opportunities to combat these barriers, which included:

Information: providing reliable sources of information on what products work, hold an annual open-door day at the Water Treatment Plant

Raising rates: do not raise rates when water savings are achieved, pass savings onto residents when water usage is low, increase rates for those surpassing critical levels of water consumption

Targeting: aggressively target industry and the largest consumers before individual consumption

Transparency: especially in water billing and what are the actual administration costs, what amount of water is being consumed in public buildings, leisure centres, etc.

Usage Records: providing access to daily usage records so that comparisons can be made

Education and Incentives

When asked what types of incentives would increase their likelihood of making improvements, participants ranked the following in order of their support:


1. Education on water saving improvements (55%)
2. Rebates provided at the till when purchasing from local suppliers (48%)
3. City providing fixtures at no-cost (41%)
4. Rebates provided through an application process (38%)
5. Providing home and business audits to identify water saving opportunities (34%)
6. Rebates provided to installers and distributors (22%)

Other suggestions for incentives provided by participants included:


- Credit program for being below a certain household target
- Ensuring tradespeople charge at reasonable costs
- Meter all units in multi-unit dwellings
- Provide additional incentives to low-income households to make their lives more affordable
- Rebates to homeowners who water City boulevards

When asked whether low-interest loans provided by the City through the Home Energy Loan Program would increase their likelihood of making water conservation improvements, most participants said they would not (37%), followed by somewhat (24%), yes (21%), and not sure/no opinion (19%).

Respondents identified the following proposed and suggested messages as being important to be included in future education programs and resources:

- 
1. How to conserve water in your home (77%)
 2. How to conserve water in your yard (76%)
 3. How to save money on your water bill (68%)
 4. How to find leaks in you home, yard and business (53%)
 5. How does water use relate to climate change and our environmental footprint (45%)
 6. Understanding your water bill (40%)
 7. The benefits of naturalized and water efficient parks (34%)
 8. The story of water – where it comes from and where it goes (29%)
 9. How does an irrigation or plumbing system work (23%)
 10. The importance of water to the many cultures represented in Saskatoon (15%)
 11. How to use rainwater in your yards, permaculture and xeriscaping (7%)
 12. Information on incentive programs (1%)
 13. Impacts of water conservation initiatives and creating a healthy future together (1%)
 14. The importance of ecosystems and environments on water conservation (1%)
 15. Educating landlords and property owners on water efficiency (1%)
 16. Water is a basic human right (1%)

When asked what were the best ways to educate themselves and their families on water conservation measures, participants identified the following in order of importance:

- 
1. On their water bills (57%)
 2. Web-based tools to view your water use (55%)
 3. Online savings calculators and budgeting tools (53%)
 4. Checklists (51%)
 5. School programming and resources (32%)
 6. Website/app (28%)
 7. Audits and walkthroughs (26%)
 8. Demonstrations at public events and informational booths (20%)
 9. Profiling success stories (19%)
 10. Public pamphlets and handouts provided at civic centres and events (17%)
 11. Awards, games and competitions (10%)
 12. Social media awareness (1%)
 13. Offer workshops on rainwater harvesting and yard design (1%)
 14. Work with community organizations and associations to get the word out (1%)

Although not a direct method of education, numerous respondents suggested making their water bills more readable and easier to understand would provide an overall better understanding of whether they need to conserve water.

“Please switch to \$/m3 billing. Why are we stuck in 100 cubic ft? Our meters read in m3, it would be SO MUCH EASIER to educate citizens of Saskatoon on how to read their water meter and how that relates to the cost if we were billed in the same units that are used by our water meters. Periodic meter readings are a powerful tool in water conservation. Simple apps or spreadsheets could be provided to help people figure out how much water does a load of laundry take, or a bath or watering the lawn. All can easily be done by checking the water meter. But a key component is ease of calculating the costs.”

Indoor Residential Programs

Out of the proposed indoor residential programs participants identified their interest in the following programs in order of their weighted averages:

1. Residential water-use education program (33%)
2. Residential toilet rebate (30%)
3. Residential showerhead rebate and give-away (25%)
4. Residential water audit and coaching program (12%)

Numerous respondents expressed their support for the incentive programs (i.e., rebate, give-aways, etc.) for making it easier to make upgrades to their home, especially for those that are unable to afford the initial costs. The increased support for toilets over showerheads was further explained in the comments, with numerous individuals indicating the greater importance in personal preference when selecting showerheads due to the diversity of options.

Suggestions for additional indoor residential water conservation programs included:

- Greywater, rainwater storage and residential water recovery tanks
- Leak detection tools
- Individual meters to track water consumption for condos and multi-unit dwellings
- Tankless water heaters
- More efficient appliances (ex., washing machines)
- Composting toilets
- Update current billing system to a more modern one
- Upgrading home water lines (i.e., lead pipes) and plumbing
- How to use less water while showering, bathing, washing clothes and dishes
- How to install water efficient toilets, showerheads and faucets
- Rebates for multi-unit dwellings to install touchless fixtures that time out
- Using leaders (i.e., Elders, water protectors, etc.) in educational campaigns
- Programs that focus specifically on equity and low-income groups
- Provide a warning on your water bill if your use has increased substantially
- Add competition to water billing between neighbours
- Contest or sweepstakes
- In-line shower valve to shut off water instantly for brief periods

The majority of participants (97%) were unaware of any cross-promotional opportunities with other current or planned initiatives; however, participants identified the following opportunities:

- California water use programs
- Caring for Our Watershed
- City of Winnipeg (share information)
- Green Calgary (share information)
- Meewasin
- SaskEnergy programs (historic)
- SaskPower Energy Assistance Program
- Saskatchewan Home Reno Credit
- Xeriscaping Perennial Society

Participants provided the following comments regarding the proposed indoor residential programs, summarized by theme:

Age: the programs are typically effective in educating children but often there are knowledge gaps for adults (especially those without children)

Already adhering: numerous participants identified that by already installing low-flow fixtures and reducing the watering of their lawns they have already adopted water conservation measures on their properties, it was suggested that the average homeowner does not think they are part of the problem

Changing technologies: the definition of low-water showerhead and toilets constantly changes so program requirements must be specified to participants

Combining programs: participants will want to participate in multiple programs and potentially numerous times if they have multiple bathrooms in their home, will there be limits on the amount of rebates and the associated timeframe?

Costs versus benefits: how much is the cost of this program compared to the actual savings for the City and average citizen?

Demand: if the demand for these products increases then they must be made more available, most stores currently stock insufficient quantities

Education: extremely important but participation will be minimal unless there is a compelling reason for why water conservation is important, changes in behaviour for all users are more important than providing fixtures, education on the program providing options rather than ultimate solutions to ensure changes in behaviour

Effects on landfill: worry surrounding the impacts to the landfill when participants replace old toilets

Equal participation for industry: actions being taken by the City and industry need to be communicated to the public to promote the Strategy being a collaborative effort

Expectation: it is assumed that the majority of individuals are installing low-flow toilets and showerheads during retrofit projects, the City should take steps to ban non-low-flow shower heads within the retail market

Fiscal responsibility: the most commented on theme, could taxpayer dollars be allocated towards more important programs, taxes should not be raised to fund the programs represented, what will be the associated administration costs for all proposed programs?

Greater incentives: will need larger incentives due to the high labour/plumbing costs which are currently not covered by the program, amount of rebates could be tied to the amount of water the product saves, discount on water bills for participants, etc.

Importance of preference: selecting a showerhead is more of a personal preference for aspects such as aesthetics

Information: there are gaps in current information, such as what percent of homes do not have low-flow showerheads or toilets installed already? how does on-demand hot water compare to a gas-heated water tank? what difference does a small reduction (2.4%) make on overall water efficiency?

Lack initial funds: some participants will lack the start-up funds for the projects so rebates or reduced prices do not help

Limitations in infrastructure: participants believe the sewer lines in Saskatoon do not have the proper slope to accommodate low-flow toilets, increases the chance of blockage and sewer issues at the City lines

Local: rebates should only be redeemable with Saskatoon-based companies to support the local economy

Low-flow apprehension: not as simple of a solution, some respondents believe low-flow toilets are more difficult to maintain/fix, potentially need to flush several times which defeats their purpose, potentially reduced performance in basements, there is apprehension to switch to low-flow showerheads due to their inferior performance

Low income considerations: the listed programs are tailored towards middle-class families and leave out the financial disadvantaged/marginalized groups within our community, will not capture participation by low-income groups, work directly with landlords of low-income housing instead of individuals to improve uptake

Mandatory: participants held both views in making the programs mandatory and not

Renters: landlords/condo boards control water for many people and it can be difficult to convince a landlord to participate in any of the programs listed, there is no incentive for the tenant to participate since the benefits stay with the property, savings experienced by the landlord through rebates should be passed onto the tenants

“My only issue is I live in a townhouse complex and because water is part of our condo fees I am not sure how I am wasting water and what their criteria are if something like an online show of my usage vs. getting ICR to do it would be great! I have asked many times and nothing comes back. Also knowing how the whole complex uses water would be nice!”

Standardize options: there are numerous brands, styles and options which can lead to participant confusion, some low-flow options will not work in all properties which can contribute to difficulty in standardizing

Outdoor Residential Programs

Out of the proposed outdoor residential programs, participants identified their interest in the following programs:

1. Residential rain barrels (34%)
2. Residential low-water landscaping program (31%)
3. Residential irrigation community-based education program (18%)
4. Residential irrigation system upgrade rebates program (18%)
5. Outdoor watering restrictions (15%)

The use of rain barrels was strongly supported in the comments provided by participants due to their ability to be effective in capturing runoff and preventing it from entering stormwater catchments and ultimately into the river along with the numerous harmful substances it carries. One participant noted that, according to a study by the Insurance Bureau of Canada, rain barrels can be highly effective when implemented on a neighbourhood-wide basis. Another respondent suggested rain

barrel programs should be similar in design to current recycling and composting programs, where they are provided City-wide and the one-time or multi-year costs are incorporated in your water bill.

Suggestions for additional outdoor residential water conservation programs included:

- Considerations for environmentally healthy yards (ex. bird baths, etc.)
- Greywater for outdoor watering
- Educational material on how to build a rain barrel, cistern watering system, water efficient plants in landscaping, reduced watering of lawns, installing irrigation systems
- Lawn watering restrictions
- Programs for pool/hot-tub owners
- Promote xeriscaping, native plantings, trees, mulching, alternative lawns (ex. clover)
- Rainwater collection tanks (under or above ground)
- Require all new builds to follow new water efficiency standards in landscaping
- Scheduled watering periods
- Sprinkler timers, drip irrigation, and irrigation systems
- Using sump-pump water to irrigate lawns and garden

The majority of participants (97%) were unaware of any cross-promotional opportunities with other current or planned initiatives; however, participants identified the following opportunities:

- CHEP Good Food
- Donna Birkmayer Park – example of water management
- Meewasin Valley Authority
- Permaculture Saskatoon
- Sask Waste Reduction Council
- Saskatoon Food Bank and Garden Patch
- Saskatoon Horticultural Society
- Saskatchewan Perennial Society
- St. Joseph High School for naturalized landscaping
- University of Saskatchewan Master Gardeners Program
- City of Winnipeg

Participants provided the following comments regarding the proposed outdoor residential programs, summarized by theme:

Awareness: need to build awareness that these kinds of programs exist which the City currently does not do the best job of, is crucial to increase uptake amongst all demographic groups

Automatic irrigation systems: automatic systems could result in higher water use if users actively manage their own systems

Best irrigation controllers: best available controllers consist of cloud-base technologies with a smart watering feature that use pressure regulating heads

Building alternatives: would incentives still apply to individuals that create their own rain barrels due to the negative environmental footprint the manufacturing of rain barrels creates

Costs: minimize administration costs with the program, rebates draw money from the tax base, choose the cheapest most cost-effective option, associated costs with landscaping can be quite high for the average resident to turn their lawn into a more water efficient environment

Education: critical for all proposed programs, needs to focus on how much water is used for lawns, including workshops for xeriscaping/native plant use, how to effectively install a rain barrel

List of installers: the City should provide a list of certified installers to perform landscaping and irrigation installations/upgrades, would the city provide a program to make home landscaping suggestions?

Low-income considerations: need to think more about the average person living under the poverty line, will programs target these specific users, the proposed programs appear to benefit those who already have the money to install water efficient systems

Minimal gains: some participants expressed their frustration over the small gains that the current proposed programs possess

Move away from lawns: numerous participants identified their frustration with manicured lawns and wanting to move towards a more diversified yard

Mosquitos: does standing water in rain barrels provide breeding grounds for mosquitos?

Promoting biodiversity: discourage the traditional front yard and promote more biodiversity while also discouraging installing pavement as a form of low maintenance

Rain barrel rebates not enough: a \$20 rebate for rain barrels is not enough of an incentive since most rain barrels are over \$100 plus the cost of adjusting downspouts

Renters: condo boards and landlords need to get involved and be educated in order to make this program effective

Restrictions are not effective: concern surrounding the political viability of imposing water restrictions, could prove to be problematic if too punitive for pool owners and gardeners that need the additional water for food crops, generally viewed as negative by the general public yet some participants identified their support for restrictions, restrictions would need to be enforced through fines

“Outdoor watering restriction is concerning to me as a family that relies on our backyard garden for most of our produce during the summer and fall. We water as much as we can from a large rain barrel but during dry times when the rain barrel runs dry we depend on tap water to keep our garden growing and alive. A complete prohibition on outdoor watering during a time like this could be devastating for people like us who rely on our gardens for food. If such a thing is ever considered please consider making an exception for fruit and vegetable gardens.”

“Prohibiting outdoor watering would have a large effect on people's gardens and would likely be met with a lot of resistance.”

Scheduled watering: many participants supported the idea of scheduled watering (ex. watering on odd or even days)

Trees: no mention on how trees reduce the need for water by providing shade

City of Saskatoon Internal Programs

Out of the proposed City Internal Programs participants identified their interest in the following programs:

1. Maximize watering efficiency in parks (76%)
2. Maximize efficiency of facilities and operations (75%)
3. Maximize water efficiency of spray parks, paddling pools and pools (70%)
4. Develop a grey-water strategy (65%)
5. Increase naturalized areas in parks (62%)

Suggestions for additional City corporate practises and water conservation programs included:

- Better redirecting runoff
- Educate residents on the importance of naturalized parks
- Greywater use in City facilities (see Phoenix AZ. Greywater strategy)
- Install holding tanks in spray parks to re-use water
- Install low-flow toilets and features throughout City infrastructure
- Invest in green infrastructure and naturalizing storm water ponds
- Limit watering of parks and golf courses or use well water
- Micro-clover plantings
- Preserve wetlands and natural drainage in developmental plans
- Rain and timed sensors on park sprinklers
- Reduce development around water and important natural areas
- Removing boulevard/median plantings
- Repair and replace leaking City pipes
- Restrict watering lawns and spaces to evenings
- Reuse water for any project that can
- Smart-City Strategy
- Swimming areas for dogs
- Tamper-proof watering valves and fixtures in parks
- Timers and sensors for spray parks
- Use biodegradable, water-shed friendly cleaning products in all public spaces to minimize the impacts of detergents/chemicals
- Use flushed water from fire hydrants annually
- Use storm and river water to irrigate parks
- Xeriscaping, mulching and using drought tolerant species (i.e., grasses, native plants, fruit forests, saskatoons, etc.) in parks

Numerous participants identified the need for the City programs to be a priority considering the greater amount of water consumed compared to residential neighbourhoods. Many participants also expressed their support for the proposed internal programs above the other program types.

“I think this should be the main priority for the city – leading by example to show the public you can put your money where your mouth is.”

Additional comments provided were as follows, summarized by theme:

Costs: what are the associated costs to the taxpayer for each of these programs?

Leading by example: numerous participants identified the need for City areas (i.e., parks, golf courses, City spaces, University grounds, etc.) to be a model for residents to follow

Naturalized parks: there is a strong support for more naturalized parks consisting of native plants, more nature is always better, should focus on new parks rather than those pre-existing, still provide areas for families to use freely, parks should not get weedy though

Overwatering parks: many respondents brought forward examples of parks being watered during rainy periods or being overwatered to the point of creating significant runoff, participants called for timed/SMART water sensors/controllers to be installed, there is a lot of public frustration surrounding this issue

Protecting natural areas: wetlands provide numerous ecosystem services and should be conserved

Spray parks and pools: are extremely important for families and the impacts to their use should be limited

Time to implement: the proposed programs may take significant time to put in place, would be beneficial to prioritize those with the greatest water saving potential

Top Programs

Participants were asked to rank all of the proposed programs by identifying the top three programs they feel the City should prioritize. The following is a summary of the results:

Table 6: Public Ranking of Programs

Program	Responses (%)
Maximize watering efficiency in parks	38
Residential toilet rebate	35
Develop a grey-water strategy	33
Increase naturalized areas in parks	28
Maximize efficiency of City facilities and operations	22
Residential water-use education program	21
Outdoor watering restrictions	17
Residential showerhead rebate and give-away	17
Residential water audit and coaching program	17
Residential rain barrels	17
Residential low-water landscaping program	16
Residential irrigation system upgrade rebates program	15
Maximize water efficiency of spray parks, paddling pools and pools	14
Residential irrigation community-based education program	5
Community gardens water-reduction support program	2

Final Comments

When asked whether they were more likely/willing to conserve water in their home or business considering the information and program options identified in this survey, a slight majority indicating yes they were more likely (54%), followed by their likeliness not changing (40%).

Additional comments provided by participants are summarized below by theme:

Balancing conflicting needs: there will be need for flexibility in the program to balance the needs of abilities, equity, public health, and sustainability by avoiding rigid program dynamics (ex. the need to rinse recyclable containers)

Billing: the current billing system is counter productive and ineffective to providing a better understanding in how to conserve water, there are also challenges regarding understanding water bills

“I would also love more information on our water bill about how our water use is. Is it higher than expected or are we doing a good job of conserving water? How much more could we be doing?”

Changing behaviours: the proposed programs are ideally trying to change behaviour in the average water user

Conflicting views on grass: many participants view growing green grass as unneeded considering the amount of water demands for each individual property, however there were some respondents that expressed the need to continue watering their lawns due to the aesthetic appeal, there were opposing viewpoints shared within the comments throughout the survey

Costs: homeowners are already faced with higher taxes and increasing utility bill costs, most people do not recognize the value in spending more money upfront to conserve over a period of time, advertise costs as investments that will result in future savings, especially difficult for larger families with greater water demands

“Cost is always a barrier of implementing new strategies. Many citizens are already aware of what is needed and how their water is wasted. As a family of five living on a large lot in the city, it is difficult to reduce our consumption of water. We are very interested in reducing our water usage and the purchase of new technology is needed to reduce our usage.”

Education: do education programs only work for the people who are already listening, how do these programs address those that are unmotivated to change their behaviours, approach school systems and children in order to start teaching at a young age

Equal: if programs are provided residentially then allow for them to be available City-wide for industry and businesses as well

Exhaustion: some participants felt they were doing all they could do currently

Flexibility: allow participants the ability to choose what is best for their household

Follow-up: past programs have had difficulty monitoring the effectiveness of incentives to a household or business, how will the program follow-up to make sure water efficient retrofits are installed properly

Food Security: there is potential for the costs for gardeners and food producers to increase due to the greater costs in watering their gardens

“It often feels like large families are penalized for growing gardens, being heavier consumers, and tending to their yards which beautifies the city. Growing trees which requires watering and growing vegetables to eat should be considered as environmental strategies. We do not want to lose our green spaces.”

Frustration with rate increases: one of the most commented on topics, unless there stops being what seems to be a direct relationship between water consumption going down and prices going up then there is no incentive to save water, regardless of how much water individuals save or live without the service charges continue to increase

“We already conserve water in our home. We only water our lawn once a week. Using the rain barrels we have if it has rained. We installed low flow toilets years ago and efficient shower head. After we had done these things the city increased the cost of water cause not enough was used. Is the same thing going to happen? Increase to pay for all the incentives to save water.”

“There is currently no incentive to use less water when it comes to billing, same with energy use. I have owned my home for 20 years and have always conserved water and energy and yet my bills over the years see continued increases. It seems to me there should be a way to acknowledge or reward people who use less water & electricity, but because the utility depends on people using these resources, if people use LESS, the costs to consumer must keep rising in order to cover the costs of running water treatment, water infrastructure, power plants, etc. The system RELIES on people using it, rather than on conservation.”

Funding: to achieve the outcomes suggested the City will need to fund all proposed initiatives properly, many participants expressed that taxes should not increase to fund the proposed programs

Increase costs: numerous participants suggested removing all associated fees and increasing the cost per unit of water consumed to cover all associated costs, also creating a steep increase in rates over a certain level of water use

Information: must be made readily available and easily understood to encourage uptake

Lead by example: the City should lead by example in saving water internally first

Low-income households: often do not have an opportunity to participate and implement changes, support and incentivize low-income participants through the proposed programs, possible for support to be provided through community groups that work directly with these communities

Priorities: can drastically affect the results depending upon the various demographics of the participants in this survey

Renters and landlords: one of the most commented on topics, the program must work for both parties to promote greater incentives for the rental community as a whole

“Administration should likely look at how the City could partner with rental-housing providers to perhaps help subsidize submetering technologies that have been shown to reduce consumption in multi-family buildings by 30%. I say this because I live in a condo complex and our water is billed to the entire complex and not individually, so I pay XX amount of condo fees regardless of the water that I use. This encourages greater consumption overall whereas if each unit was billed separately using submetering, there is almost always an overall reduction in water consumption. Partnering with these providers allows the City to penetrate a segment of the housing market that could play a big role in reducing water consumption.”

“Reducing residential water use among renters need to focus on short term returns that we can either take with us when we move, or that impacts our water bill, not our landlord's bottom line. This is particularly important in low-income neighbourhoods where the plumbing is likely to be older and less efficient than new development areas.”

Secondary benefits: naturalized landscaping will have benefits to more than just water conservation (e.g. climate change resilience, increasing biodiversity, etc.)

Water is a limited resource: residents need to understand there is not an endless supply of water and even though water constantly flows through the city it comes at a cost, however numerous participants expressed their frustration with the program due to the belief that fresh water is plentiful for the City due to our water treatment capabilities, is this an opportunity for the City to profit from the water supply?

“The river is Saskatoons water --with climate change and the glaciers melting , our river is in jeopardy. We need to conserve--why does everyone want more population in our province-- more people equals more water usage--I think we need to educate on how to conserve and find methods to reuse the water we have.”

3.3 Data Limitations

Due to the public health orders related to the COVID-19 pandemic, all engagement activities for this project were conducted virtually, which provides limitations for equity and accessibility groups. Additional considerations for low-income, Indigenous and equity groups will need to be incorporated into future engagement opportunities. Online engagement has its limitations in not being as inclusive to those individuals with limited to no internet access, including low-income groups. Multiple avenues were available to the public for providing input to help mitigate potential issues of inclusivity due to the inability to conduct in-person activities; however, engagement practises and procedures were limited due to the COVID-19 pandemic, especially in conducting physical meetings with individual stakeholders.

4 Next Steps

The next steps for development of Water Conservation Strategy are described below:

- Identify benefits and barriers and explore opportunities to enhance initiatives
 - Identify benefits and barriers to water conservation initiatives in Saskatoon.
 - Of the potential initiatives, identify opportunities to enhance benefits and mitigate barriers.
- Select preferred initiatives to prioritize the Strategy
 - Identify public preference for each initiative to help inform selection of preferred initiatives to prioritize and Plan Options Identification

- Close the Loop
 - Share relevant components of the Water Conservation Strategy with stakeholders to close the loop and provide opportunities to identify any red flags.
 - Validate key findings and test with wider stakeholder base.

We Are Here