

Stormwater Management Incentives Consultation

Public Consultation Report
December 2024



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For questions about this report, please contact:

Aadila Valiallah
Senior Coordinator, Public Consultation Unit
stormwaterincentives@toronto.ca
416-338-2985

Consultation Summary

Background – City Council Direction

Over the past several decades, Toronto has experienced severe storm events that have impacted public and private property and the environment. Most recently, heavy rainfall events in July and August 2024 caused basement and surface flooding, affecting over a thousand properties and City infrastructure.

In response, City Council directed staff in July 2024 ([2024.MM20.24](#)) to report back on a range of issues related to stormwater runoff reduction and basement flooding mitigation including:

- Review of City stormwater mitigation and adaptation programs for private property (referred to as stormwater management incentive programs in this report), including existing, discontinued, and potential new incentives to reduce impermeable surfaces, stormwater runoff, and basement flooding risks on private property.
- New or discontinued stormwater management incentive programs that could be established in the short-term or require additional review and planning prior to implementation.
- Public input into what programs and incentives would provide the most benefit to residential property owners to decrease impermeable surfaces and mitigate runoff.

Public Consultation Overview

The City of Toronto's (City's) public consultation on City stormwater management incentive programs took place from October 23 to November 5, 2024. The public consultation activities were led by the City's Public Consultation Unit in the Policy, Planning, Finance and Administration (PPF&A) Division, working with Toronto Water and the Environment, Climate and Forestry Division.

The purpose of the public consultation was to gather public input into what programs and incentives would provide the most benefit to residential property owners to decrease impermeable surfaces and mitigate runoff. The public consultation informed a review by City of Toronto (City) staff of existing, discontinued and potential new City stormwater management incentive programs for private property.

The consultation sought feedback on the following:

- challenges property owners face in taking actions to manage stormwater on their properties;
- current City stormwater management incentive programs for private property; and,
- stormwater management features that would be of interest to property owners for potential new or expanded stormwater management incentive programs.

Communication Activities

A variety of methods were used to notify the public about the consultation and opportunities to participate:

- Consultation web page toronto.ca/StormwaterIncentives (10,616 unique views)
- Email to interest groups including residents' associations, community groups and organizations (265 contacts)
- City of Toronto social media (Oct 23 to Nov 5)
 - Organic social media posts on the City's corporate channels from October 23 to November 9 (X, Instagram, Facebook and LinkedIn). The posts generated a combined 44,975 impressions and 367 clicks. The posts were also re-shared on the divisional accounts of Parks, Forestry and Recreation and Energy & Climate.
 - Social media paid advertising on Facebook, Instagram, LinkedIn (combined 1,589,841 impressions and 20,255 clicks)
- Inclusion in Toronto Water's WaterSource newsletter, distributed to all members of City Council
- Inclusion in the Live Green newsletter, which is issued monthly to more than 12,000 subscribers, primarily Toronto residents, by the City's Environment, Climate and Forestry Division

Consultation Activities

Consultation feedback was received through the following activities:

| Activity | Date | Participation |
|---------------|-------------------------------|-------------------|
| Online Survey | October 23 – November 5, 2024 | 1,002 respondents |
| Email | October 23 – November 5, 2024 | 4 comments |

An online survey was the primary method of receiving feedback from the public. The survey was available online and included background information on existing City stormwater management incentive programs and potential new or expanded incentives. The questions included multi-choice or multi-select responses, in addition to open ended comment boxes and optional demographic questions.

The survey received responses from 1002 individuals, 766 of whom reached the end of the survey questions. Most survey respondents (96 per cent) were residents of the City of Toronto, with the majority (63 per cent) living in single family detached homes. Eighty-eight per cent of residential respondents were homeowners, and 11 per cent were renters.

One (1) per cent of survey respondents were commercial business owners or representatives of a commercial business in the city. Another one (1) per cent were representatives from the institutional sector, while two per cent represented other property types or sectors (e.g., multi-residential and condominium buildings and the not-for-profit organizations). Participation in the survey was anonymous. See the Appendix to this report for a profile of survey participants. Responses received to each question are presented in the following section.¹

¹ Some survey responses add up to 99% or 101% as a result of rounding percentages to whole numbers.

Consultation Feedback - What We Heard

Consultation Feedback – Key themes

Most of the participants felt it was important for property owners to take actions to manage stormwater on their properties. Participants expressed interest in and support for stormwater management actions on private property. Many participants had already taken actions to manage stormwater on their property and taken advantage of at least one of the City's current incentive programs. Feedback from participants with an interest in stormwater management included recognition that stormwater management actions have multiple benefits, which serve both public and private property needs.

While participants expressed interest and support for stormwater management actions on private property, challenges and concerns were also expressed with respect to the following:

- **Costs for property owners:** Many participants commented that cost of stormwater management actions on their properties can be significant. They noted that, while grants and rebates are helpful, they may not cover the full costs incurred by property owners.
- **Lack of awareness and need for more information:** Many participants identified a need for greater awareness about the City's stormwater management incentive programs, as well as the need for more information about specific stormwater management actions, including suitability of different property and building types. Participants expressed uncertainty about:
 - the amount of space required to install different stormwater management features and were unsure if features can be applied to all property sizes.
 - whether stormwater management features could result in increased basement flooding, especially during storm events, if stormwater is retained on the property.
- **Maintenance of stormwater management features:** Participants raised several concerns related to maintenance of stormwater management features including uncertainty about the extent of maintenance that may be required as well as concern about the additional labour, effort or costs required.

In addition to the above, two general concerns expressed by some participants were:

- Population growth and development in the city, specifically related to infill development and front pad parking, can result in a decrease in green spaces with increase in impermeable surfaces, and thereby increase stormwater runoff.
- Uncertainty about whether retaining stormwater on a property, rather than letting it run off to the street, could result in increased basement flooding, especially during larger storm events.

Survey Questions and Responses

This section presents the questions and responses to the online survey. The survey questions and responses are presented as follows:

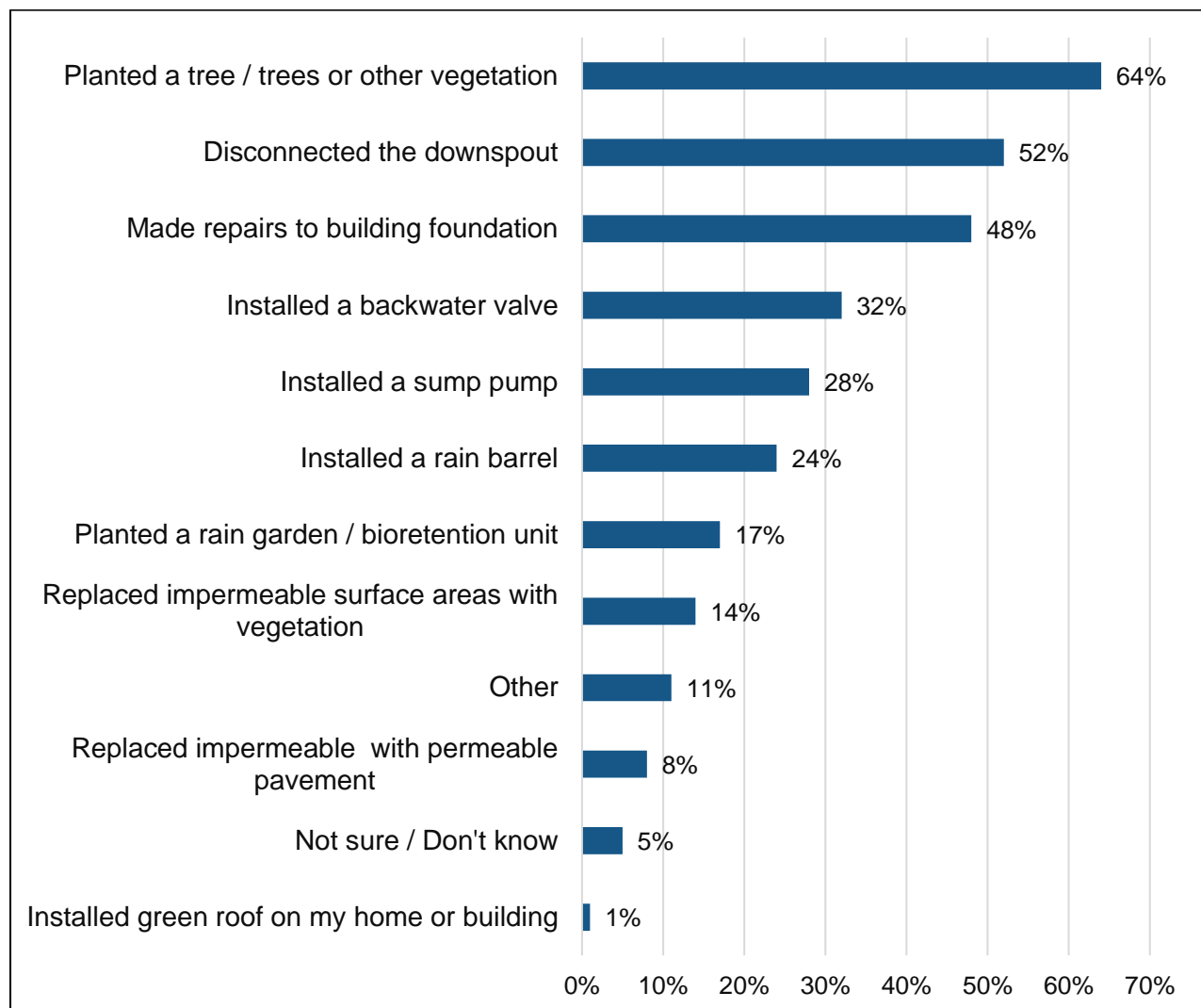
- Stormwater management on private property
- Current City stormwater management incentive programs
- Potential new stormwater management incentive programs

Stormwater Management on Private Property

The survey asked questions about actions taken by property owners to manage stormwater on their property, the importance of actions by property owners to manage stormwater on their property, and challenges property owners face to do so.

Question: What actions have you taken to manage stormwater on your property?

Respondents were able to select multiple options.

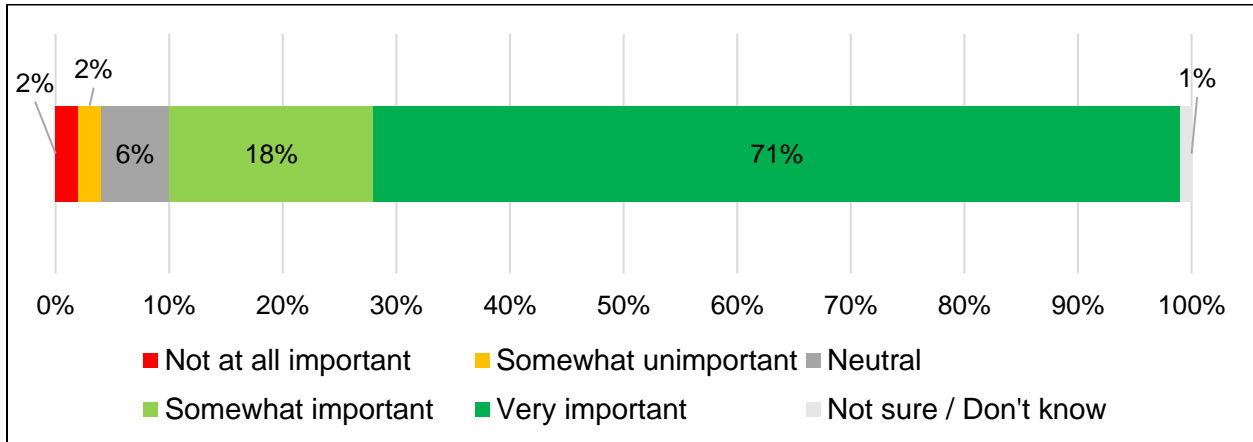


887 responses

The most common actions taken by respondents to manage stormwater were planting trees or other vegetation (64%), downspout disconnection (52%) and making repairs to the home or building foundation (48%).

Actions reported as 'Other' included a range of actions to reduce water entering the basement such as internal wall waterproofing, installing new windows, and installing multiple sump pumps, drainage systems and water storage, as well as proactively cleaning out storm sewers on the street from leaves, snow, dirt and debris.

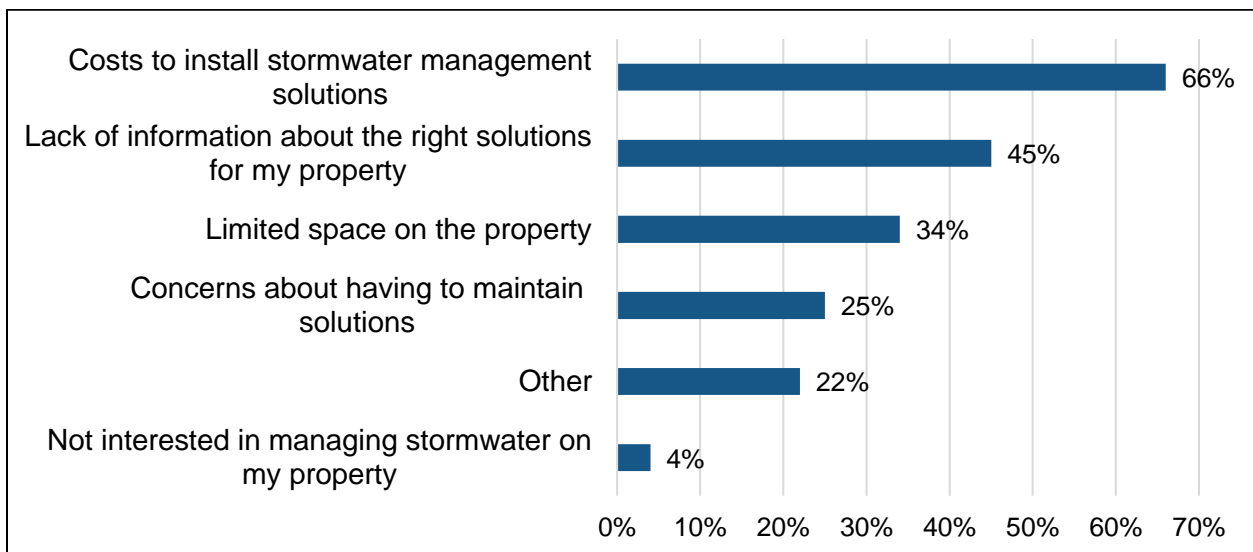
Question: How important is it for property owners to take actions to manage stormwater on their properties? Respondents were able to select multiple options.



887 responses

Most respondents (89%) indicated it is somewhat important or very important for property owners to manage stormwater on their property. Four per cent (4%) think it is only somewhat important or not important at all. Seven per cent (7%) were neutral or don't know.

Question: What are the challenges or barriers for you to take actions on your property to manage stormwater? Respondents were able to select multiple options.



887 responses

The most common challenges reported were the cost of installation (66%), lack of information on the right solution for the property (45%) and limited space (34%).

Challenges identified as 'Other' include:

- Residing in a multi-residential or high rise building or renting
- Lack of clarity around city bylaws and permits such as the requirement for a paved driveway and restrictions on the height of front yard plants
- Lack of information about, or access to, appropriate professionals
- Geological challenges with high water tables, clay soil and grading
- Impact of development from neighbouring properties (i.e. increased paved areas adjacent to property)

Some respondents noted concerns about neighbours' actions that were felt to be counterproductive to stormwater management and result in increased runoff from their property, such as increasing paved areas and renovations or new home builds that increase the building footprint or require tree removal or changes to grading.

Current City Stormwater Management Incentive Programs

The survey asked about awareness of, and experience with, current City of Toronto stormwater management incentive programs. Respondents were invited to share comments, feedback and suggestions about existing programs including:

- Basement Flooding Protection Subsidy Program (BFPSP)
- Mandatory Downspout Disconnection Financial Assistance Program (MDDFAP)
- Eco-Roof Incentive Program (ERIP)
- PollinateTO Grants Program (PollinateTO)
- Tree Planting Programs on Private Property

Basement Flooding Protection Subsidy Program (BFPSP)

The BFPSP offers a subsidy of up to \$3,400 per property to owners of single-family, duplex, triplex or fourplex residential home to install flood protection devices including the installation of a backwater valve; installation of a sump pump; severance and capping of a home's storm sewer or external weeping tile connection.

| Basement Flooding Protection Subsidy Program (BFPSP) | Yes | No | Not sure / Don't know |
|---|------------|-----------|------------------------------|
| Were you aware of BFPSP? | 42% | 52% | 6% |
| Have you previously applied to the BFPSP? | 18% | 78% | 4% |

834 responses

Comments about the BFPSP were received from 257 respondents. The feedback is themed and summarised below.

The most common feedback about the BFPSP was:

- Measures to reduce basement flooding risks are expensive
- More information and public awareness of the BFPSP is needed
- Access to advice on the most appropriate solutions for the home, how to qualify for the subsidy, and referrals to professionals (e.g., contractors and plumbers) would be helpful

Additional comments included:

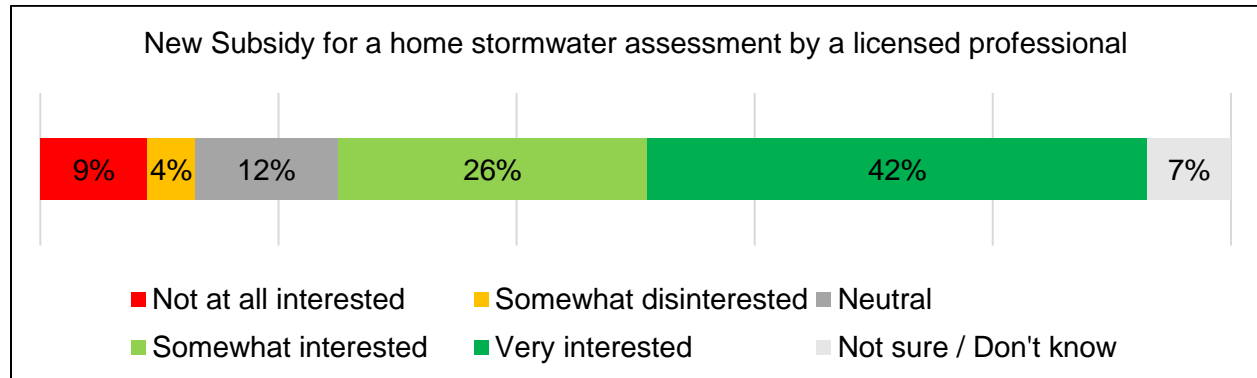
- Program does not provide enough of a rebate compared to the actual costs incurred by the property owner
- Identifying appropriate solutions for older homes is challenging
- There is confusion about how to qualify, when to apply, and who qualifies for these subsidies, as well as frustration that some people have made upgrades but were denied subsidies

Potential New and Expanded BFPSP Subsidies

The survey presented potential new and expanded subsidies under the BFPSP and asked which of the potential subsidies would be of interest. Responses in this section were received from 834 individuals. A summary of responses for each potential subsidy is provided below.

New subsidy for a home stormwater assessment by a licensed professional

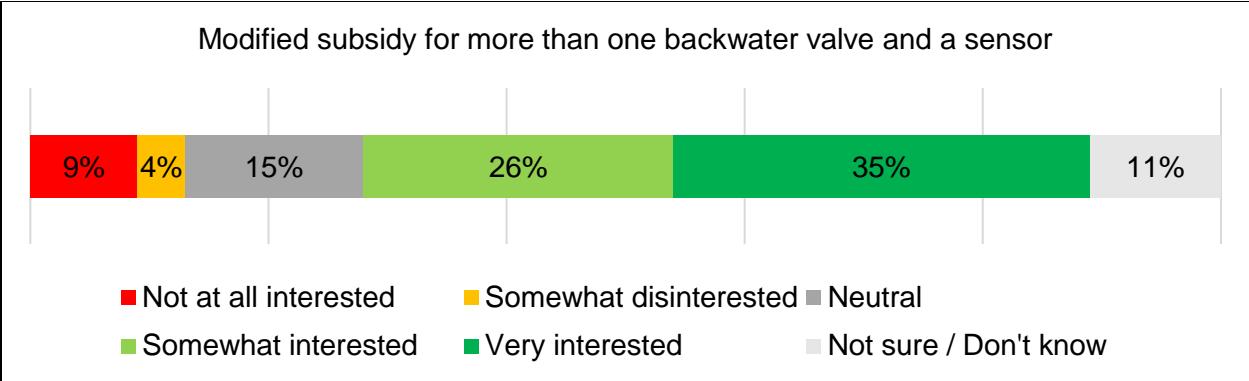
This option would establish a new subsidy for a home stormwater assessment by a licensed professional to advise on potential basement flooding risks and mitigation measures for private properties.



Sixty-eight per cent (68%) of respondents indicated they would be somewhat interested or very interested in a new subsidy for a home stormwater assessment by a certified professional to advise on potential factors that could contribute to basement flooding on the property. Thirteen per cent (13%) were somewhat disinterested or not at all interested. Nineteen per cent (19%) were neutral or unsure of their interest.

Modified subsidy for more than one backwater valve and a sensor

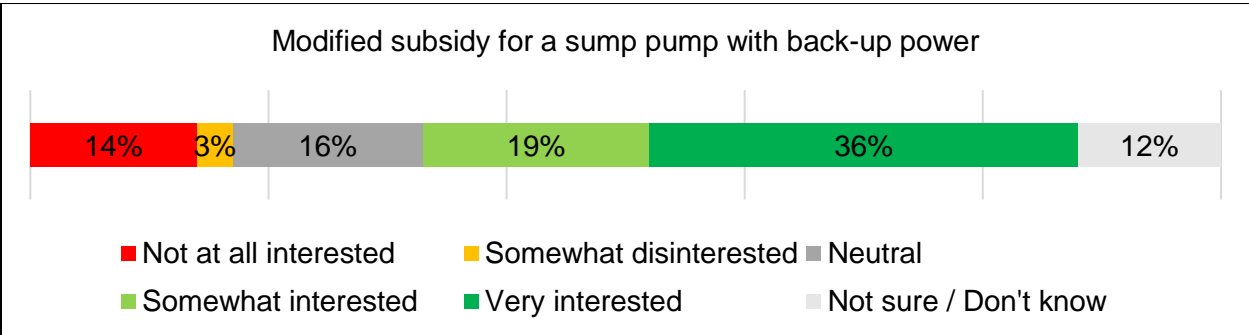
This option would increase the maximum backwater valve subsidy from \$1,250 to an estimated \$3,200 to subsidize the cost for two backwater valves per property.



Sixty-one per cent (61%) of respondents indicated would be somewhat interested or very interested in a modified subsidy more than one backwater valve installation and a sensor. Thirteen per cent (13%) were somewhat disinterested or not at all interested. Twenty-six per cent (26%) were neutral or unsure of their interest.

Modified subsidy for a sump pump with back-up power

This option would increase the maximum sump pump subsidy from \$1,750 to an estimated \$2,550 to subsidize the cost for a sump pump with backup power (battery power).



Fifty-five per cent (55%) of respondents indicated would be somewhat interested or very interested in a modified subsidy for a sump pump with back-up power. Seventeen per cent (17%) were somewhat disinterested or not at all interested. Twenty-eight per cent (28%) were neutral or unsure of their interest.

Mandatory Downspout Disconnection Financial Assistance Program (MDDFAP)

The MDDFAP offers a reimbursement of the costs of labour and materials for performing downspout disconnection work, up to a maximum of \$500, if you are an eligible low-income senior or a low-income person with a disability.

| Mandatory Downspout Disconnection Financial Assistance Program (MDDFAP) | Yes | No | Not sure / Don't know |
|--|------------|-----------|------------------------------|
| Were you aware of the MDDFAP? | 40% | 54% | 7% |
| Have you previously applied to MDDFAP? | 2% | 92% | 6% |

820 responses

Comments about the MDDFAP were themed and are summarised below.

The most common feedback received was:

- More public awareness and information about the MDDFAP is needed
- There should be greater City enforcement for mandatory disconnection, for example through fines
- Access to advice on how to best disconnect and redirect flow from downspouts would be helpful

Additional comments included:

- Low income and other groups should be able to qualify for the program
- The subsidy does not cover enough of the cost (if done by a professional)
- There is concern about potential for basement flooding if stormwater is not directed away from the house

Eco-Roof Incentive Program (ERIP)

The Eco-Roof Incentive Program offers a financial incentive (rebate) to eligible residential, industrial, commercial buildings to support the expansion of green roofs and cool roofs on Toronto homes and buildings. Green roofs help manage and reduce stormwater runoff from home and building roof tops. The rebate offered is \$100 per m² of green roof area installed, up to a maximum of \$100,000 per green roof project.

| Eco-Roof Incentive Program (ERIP) | Yes | No | Not sure / Don't know |
|--|------------|-----------|------------------------------|
| Were you aware of the ERIP? | 19% | 78% | 3% |
| Have you previously applied to the ERIP? | 1% | 97% | 2% |

812 responses

Comments about the ERIP are summarised below.

The most common feedback was:

- More public information and awareness is needed about the ERIP as well as general information about eco-roofs
- Technical and professional advice on feasible options for eco-roofs should be provided by the City
- The ERIP should focus on high density and large buildings as well as new builds

Additional comments included:

- Recognition of the multiple benefits of eco-roofs in addition to stormwater management, such as reducing the urban heat island effect and providing additional opportunities for greening
- Eco-roofs are more suitable for larger buildings such as multi-residential, commercial or institutional, and should be mandatory for these buildings as well as new builds
- The ERIP should consider how to greater incentivize eco-roofs for single family homes and incentive requirements.
- Concerns about maintenance requirements for eco-roofs

- Eco roofs are costly to install, and the value of the rebate does not cover enough of the cost.
- Information is not easy to find, and there are many different building and roof types.
- Potential issues and concerns about eco-roofs leaking and attracting wildlife

PollinateTO Grants Program (PollinateTO)

PollinateTO offers grants of up to \$5,000 to groups of three or more people to support community-led projects that create a new pollinator or rain garden, expand or enhance an existing garden by adding native pollinator-friendly plants, or convert a lawn area, boulevard or hard surface to a pollinator garden. These projects help reduce stormwater runoff.

| PollinateTO Grants Program | Yes | No | Not sure / Don't know |
|---|------------|-----------|------------------------------|
| Were you aware of PollinateTO? | 38% | 61% | 2% |
| Have you previously applied to PollinateTO? | 4% | 94% | 2% |

808 responses

Comments about the PollinateTO Grants Program were themed and are summarised below. The most common feedback was:

- PollinateTO should provide smaller grants for individual properties, or grants based on potential garden space available (boulevards, corner lots on private property), and grants could be considered alongside incentives for pavement removal
- More public information and awareness is needed about PollinateTO and what qualifies as a pollinator garden and the link between stormwater management and pollinator gardens
- Pollinator gardens and grant programs are suitable for large multi-unit residential buildings, businesses, institutions, and should be actively brought to the attention of property management firms

Additional comments included:

- Support from the City is needed for grant applications and opportunities that foster neighbourhood networking
- Advice from PollinateTO is needed on suitable plants for pollinator and rain gardens
- Support is needed for ongoing maintenance and introducing a legacy transfer when people have moved on (and are no longer maintaining the garden), especially for schools and community spaces
- Concerns about the potential of pollinator and rain gardens to attract insects such as wasps and mosquitos
- Funds would be better spent on supporting Urban Forestry to do large tree plantings and focusing on larger public spaces such as projects in parks and well as protecting existing trees

Tree Planting Programs for Private Property

The Backyard Tree Planting Programs offers backyard trees and native shrubs, and planting services at a subsidized cost. The Community Canopy Program connects Toronto residents with free trees through an online mapping tool that provides information on where to plant a tree on a specific property.

| Tree Planting Programs for Private Property | Yes | No | Not sure / Don't know |
|--|------------|-----------|------------------------------|
| Were you aware of the programs? | 51% | 47% | 3% |
| Have you previously applied to the programs? | 15% | 83% | 3% |

803 responses

Comments about the Tree Planting Programs for Private Property were themed and are summarised below.

The most common feedback was:

- More emphasis is needed on saving existing trees in the city
- More options for tree species should be available for properties under the tree planting programs
- Maintenance support such as pruning should be provided by the City for the full life cycle of a tree

Additional comments included:

- Include shrubs and native plants in the tree planting programs
- Support is needed to maintain old growth trees
- Additional opportunities for planting trees should be identified (e.g. for condominiums, schools)
- Tree delivery times for program participants should be reduced
- Concerns about tree roots potentially causing damage to underground infrastructure such as such as weeping tiles and pipes\

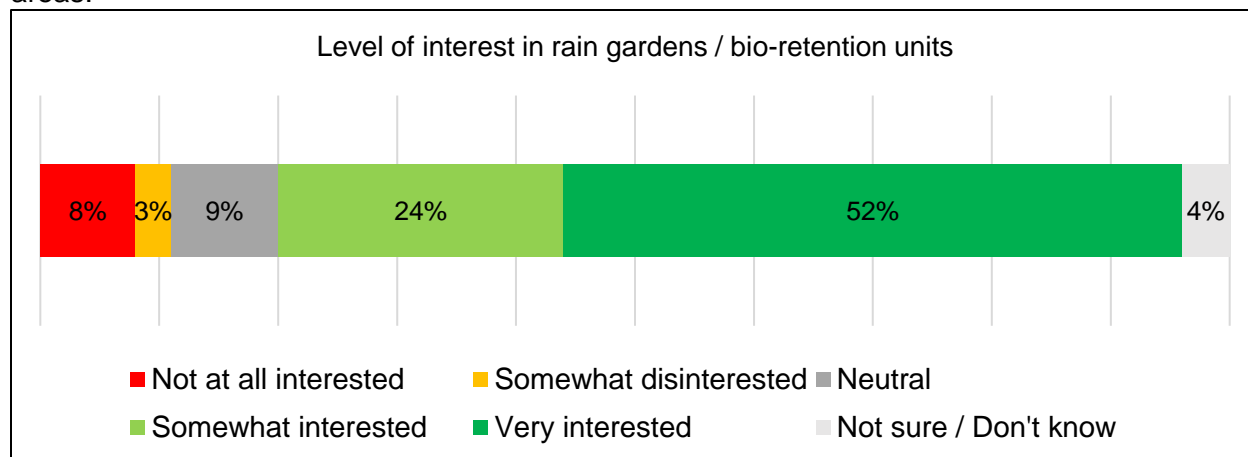
Potential New Stormwater Management Incentive Programs

Survey respondents were asked about their level of interest in various types of green infrastructure, if the City were to provide an incentive in the form of a subsidy or grant. Five green infrastructure features (rain gardens/bio-retention units, soakaway pits, pavement removal, permeable pavement, and rain barrels) were presented for feedback. An open text field for comments, feedback and suggestions was provided.

Responses in this section were received from 778 individuals. A summary of responses for each type of green infrastructure is provided below.

Rain gardens / bio-retention units

Rain gardens / bio retention units are sunken planting beds with highly permeable and nutrient-rich soils that collect, absorb and treat runoff from roof downspouts, driveways and parking areas.



Among respondents, 76% were somewhat interested or very interested in rain gardens / bio retention units. Eleven per cent (11%) of respondents were somewhat disinterested or not at all interested and 13% were either neutral or unsure of their interest.

Benefits and Reasons for interest

- Many respondents cited the multiple benefits of rain gardens:
 - Greening the environment, supporting biodiversity, and carbon absorption
 - Supporting local ecosystems, includes native plants, provides food and habitats for insects, birds and pollinators
 - Can be positioned to help absorb water from a sump pump or downspout
- Some respondents with existing rain gardens are interested in additional rain gardens on their property. Others are eager to try something new and support stormwater management.
- For some it is a new idea and concept, and they are interested in learning more.
- Some have gardens, available space, or a general interest in building a rain garden, and an incentive would be an opportunity to make changes.
- Viewed as better alternative to grass, which relies on chemical enhancements, does not support biodiversity and requires high maintenance
- Viewed as aesthetically pleasing, adds beautification and interest for the neighbourhood and community
- Easy to install and maintain, is cost effective and could be a Do-It-Yourself (DYI) project

Concerns

- Anticipated costs for installation and the cost or amount of work required for maintenance
- Uncertain if it is feasible for their property, considering the space requirement, the location in the yard, proximity to the house and ground elevation
- Unsure about how to install a rain garden correctly
- Installation would be disruptive to existing garden
- Concern about increase in mosquitos and insects
- Unsure of the increased benefit of rain gardens, specifically compared to existing garden
- Opinions and reactions from neighbours may not be favorable
- Rain gardens are not aesthetically pleasing gardens

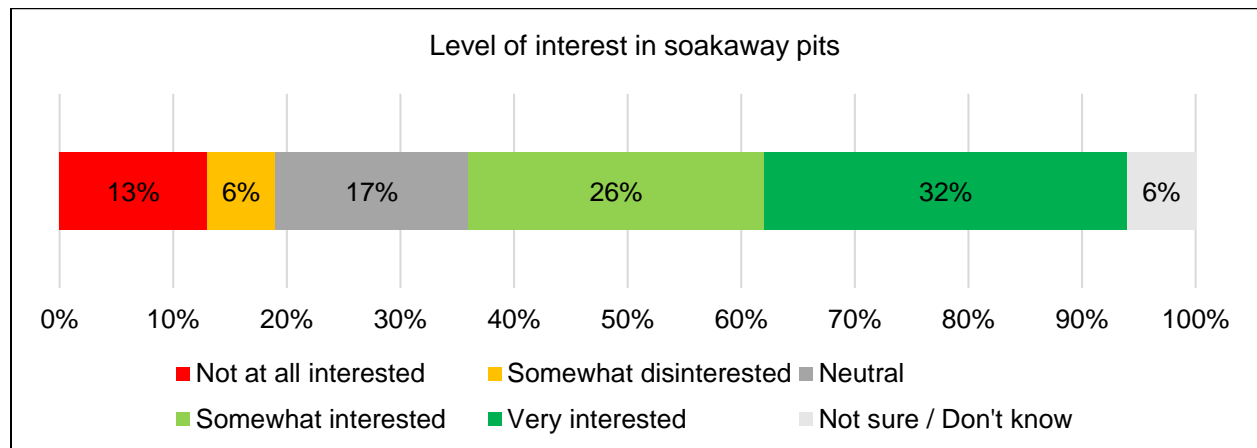
- Unsure about effectiveness of rain gardens in reducing runoff and flooding during extreme weather
- Some respondents felt that gardens should not be eligible for a subsidy and that the City should focus more on public infrastructure rather than private property

Suggestions

- The City should provide more information and more education about rain gardens such as:
 - An assessment guide to help determine the feasibility (space, location, land suitability) for a rain garden on a property
 - Examples of plans, guidelines and best practices including sample costs to install a rain garden
 - A place to go for advice and/or access and referrals to professionals who can advise or provide (landscaping) services
 - Information on the benefits of rain gardens compared to grass or other permeable ground
- Provide options and opportunities for multi-unit residential buildings such as condominiums, co-operative housing and rental properties

Soakaway pits

Soakaway pits are underground storage systems that receive stormwater runoff on a property and allow it to be absorbed into the ground, helping reduce the amount of runoff from the property. They are typically lined with geotextile fabric and filled with granular stone or other materials that allow water to travel through the pit.



Among respondents, 58% were somewhat interested or very interested in interested in soakaway pits and underground storage systems that receive runoff. Nineteen per cent (19%) of respondents were somewhat disinterested or not at all interested and 23% were either neutral or unsure of their interest.

Comments provided by respondents are summarized below.

Benefits and Reasons for interest

- Could be installed in combination with other infrastructure on property and remain out of sight under a parking area, sidewalk, rock garden, in conjunction with drainage for an eaves trough or sump pump
- Would work well with soil types on their property
- Helps filter water and reserves water for future use

Concerns

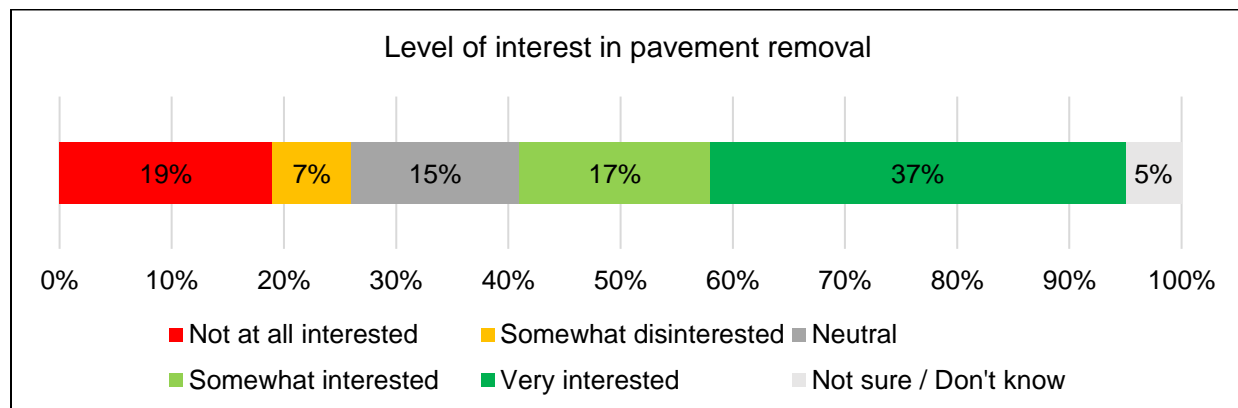
- Costly to install a soakaway pit and the process to do so is labour intensive
- Installation would require excavation and be disruptive to current garden and tree roots
- Uncertainty about the suitability of a soakaway pit on a property, e.g., whether it can be installed in areas where there is a high water table, consideration of different soil types, and also the space required on a property
- Potential impacts of soakaway pits on the property and surrounding properties, e.g., water saturation of surrounding soil, building foundations and neighbouring properties
- Uncertainty about impacts on basements and whether a soakaway pit would result in basement flooding and humidity in basements
- Preference to allow water to run off the property
- Questions about whether soakaway pits would attract mosquitos
- Maintenance seems complex, repairs to underground infrastructure are difficult
- Soakaway pits would be unattractive

Suggestions

- Provide more information and education about soakaway pits and how they work, design, costs and maintenance requirements
- Share examples, including a comparison of different storage systems
- Access to advice, assessments and referrals to professionals would be helpful
- May be more applicable for new construction projects (new builds)
- Applicability for townhouses and condominiums should be considered

Pavement removal

Pavement removal is the removal of impermeable pavement such as concrete walkways, patios and other landscaping, and replacement with soft surfaces like grass or native vegetation.



Among respondents, 54% were somewhat interested or very interested in pavement removal. Twenty-six per cent (26%) of respondents were somewhat interested or not all interested and 20% were either neutral or unsure of their interest.

Comments provided by respondents are summarized below.

Benefits and Reasons for Interest

- Pavement removal is the most impactful of all the potential incentive options in reducing the amount of runoff from impermeable surfaces into stormwater systems
- Will reduce heat island effects of pavement and make streets and homes cooler
- Suitable for small spaces
- Would create more space for gardens or transition to green areas and be more accommodating for tree roots
- Could be combined with permeable pavement options

Concerns

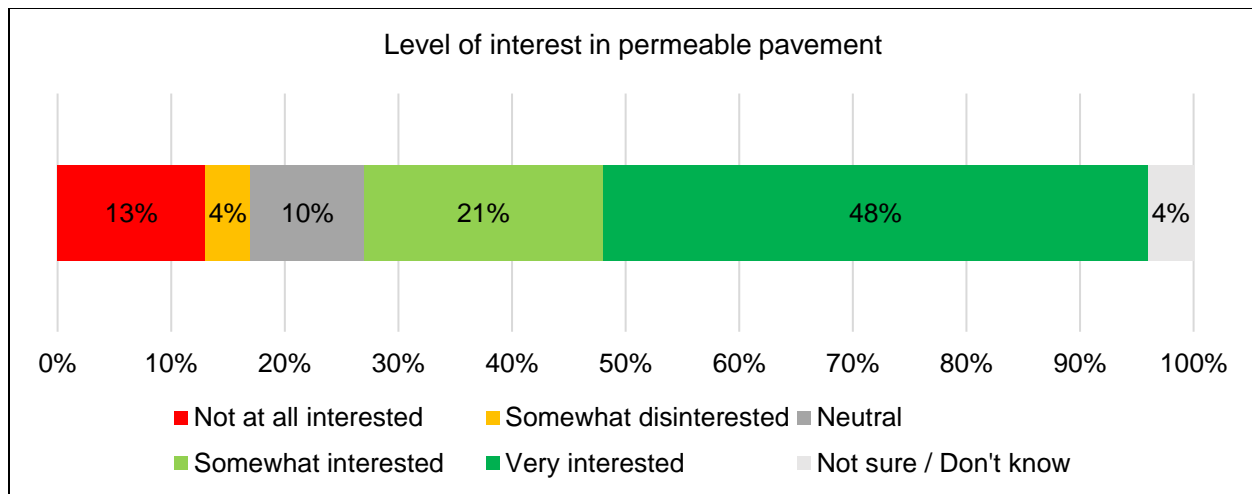
- Impermeable pavement has practical considerations for driveways and walkways as it provides an accessible stable surface, especially for the those who require mobility support, and it directs water away from the home, i.e., concerns about potential impacts on home if pavement is removed
- It is expensive and difficult to remove pavement, as well as disruptive to the property, and the value of the incentive may not match the costs to the property owner
- Concerns about maintenance during the summer with rain and mud, or weed growth; and in winter with snow removal
- Changes to shared driveways would need agreement from both households
- Unsure of the impact on surrounding property and building, and concern that permeable pavement could increase water seeping into basements and damage homes
- Concerns about the disposal of waste materials (the concrete) when the pavement is removed
- Ground conditions may not be suitable, e.g., it may not work well in areas with a high clay content
- Incentives should not be provided to property owners

Suggestions

- Pavement removal should be mandated for stormwater management
- The City should stop allowing properties to install paved parking pads and paved backyards, greater enforcement is needed for illegal front parking pads
- More regulations are needed on the allowable percentage of hardscape on a property
- Options for large building complexes and commercial lots are needed
- It is wasteful as a retrofit, but good for new buildings and renovations

Permeable pavement

Permeable pavement is a type of hard surface such as permeable interlocking pavers and porous asphalt or concrete that allows stormwater to seep into and in between the paving materials and be absorbed into the ground.



Among respondents, 69% were somewhat interested or very interested in permeable pavement. Seventeen per cent (17%) of respondents were somewhat interested or not all interested and 14% were either neutral or unsure of their interest.

Comments provided by respondents are summarized below.

Benefits and Reasons for interest

- Provides a wide range of potential uses and environmental benefits
- A practical alternative to impermeable pavement for driveways, patios, walkways, large and small spaces
- There is an opportunity for installation when driveways need to be repaved and can be combined with pavement removal or landscaping
- Provides the greatest impact for homeowners to absorb rainwater on the property and reduce runoff to the City's sewer system
- Permeable pavement is aesthetically pleasing

Concerns

- Costly and may be complex and disruptive to install, e.g., requires re-installation every few years to keep the pavement level
- Concerns about maintenance during the summer with weed growth and in winter with snow removal, ice and salt
- Concerns about accessibility and the potential to create a tripping hazard, especially for those who use mobility supports
- Uncertain if property is suitable, whether it can be installed in areas where there is a high water table, consideration for different soil types, and proximity to building, neighbours and City-owned lands could present challenges
- Concerned about impact on building, a preference for stormwater to run off the property away from the home / building
- Finding the right service provider may be a challenge as contractors are not very aware of what is required, it is difficult to someone who knows how to install it
- Changes to shared driveways and laneways would be difficult to coordinate
- Permeable pavement is not aesthetically pleasing

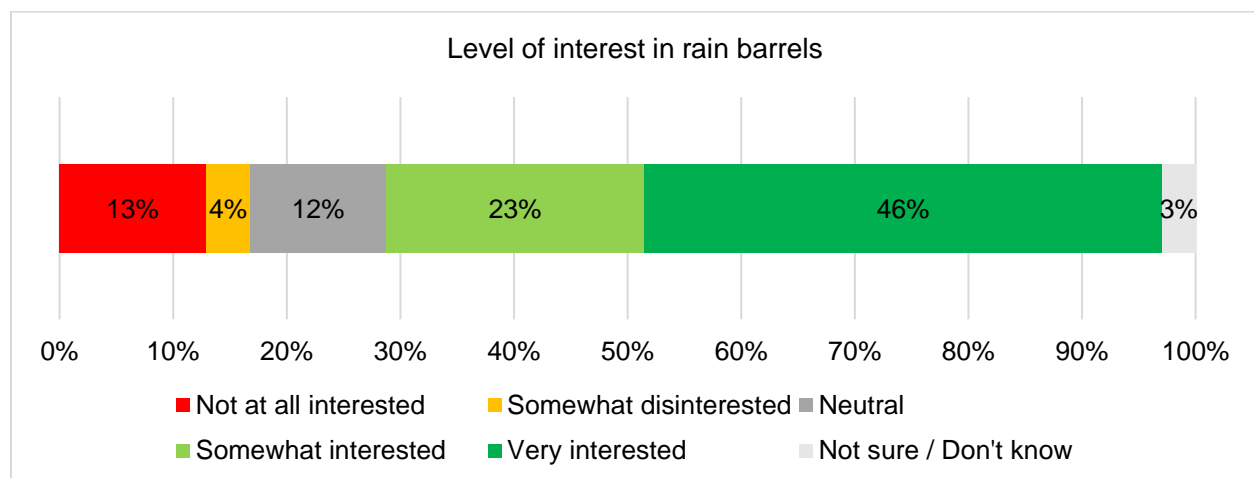
Suggestions

- More information, examples of permeable pavement and plans would be helpful

- Should be considered for all new construction projects and buildings with large land parcels, schools, condominiums, and apartments
- The City should set standards for permeability. e.g., materials used should be permeable and free of toxins
- More suitable to large properties, multi-unit residential properties and commercial spaces, institutions
- More focus is needed on ongoing construction of non-permeable infrastructure everywhere in the city
- Should be mandated for all properties

Rain barrels

Rain barrels are typically plastic barrels that collect and temporarily store runoff that flows off a home or building roof downspout.



Among respondents, 69% were somewhat interested or very interested in interested in rain barrels. Seventeen per cent (17%) of respondents were somewhat interested or not all interested and 15% were either neutral or unsure of their interest.

Comments provided by respondents are summarized below.

Benefits and Reasons for interest

- Happy with current rain barrels and interested in additional ones
- Simple to install and manage
- Felt to be cost-effective
- Helps conserve water, can be used for the garden, lawn or plants, and reduces water consumption on utility bill
- Suitable for small properties

Concerns

- Concerns about overflow from the rain barrels during heavy rain and the consequences of stored water near the home, such as an increase in mosquitoes
- Not aesthetically pleasing
- Considered a seasonal intervention and not helpful during larger storms
 - Limited to use during the summer

- Concerns about maintenance, and uncertainty about what to do with a rain barrel during the winter
- Difficult to install
- Not enough space on the property to install
- Too much work to manage and maintain

Suggestions

- Some respondents with past experience noted mixed results with rain barrels and suggested the city provide information on best practices for stormwater management on private property
- Would like to see a range of designs and accessories including the use of more durable materials, alternatives to plastic, and compatibility with sprinklers and soaker hoses.
- Use of rain barrels should be mandatory, the City should provide free rain barrels to all homes, much like the Blue Bin program
- Provide rain barrel options for apartments and balconies and co-ops

Other stormwater management features

The survey also asked about other stormwater management features for private property for which the City should consider providing incentives. The responses are summarized below.

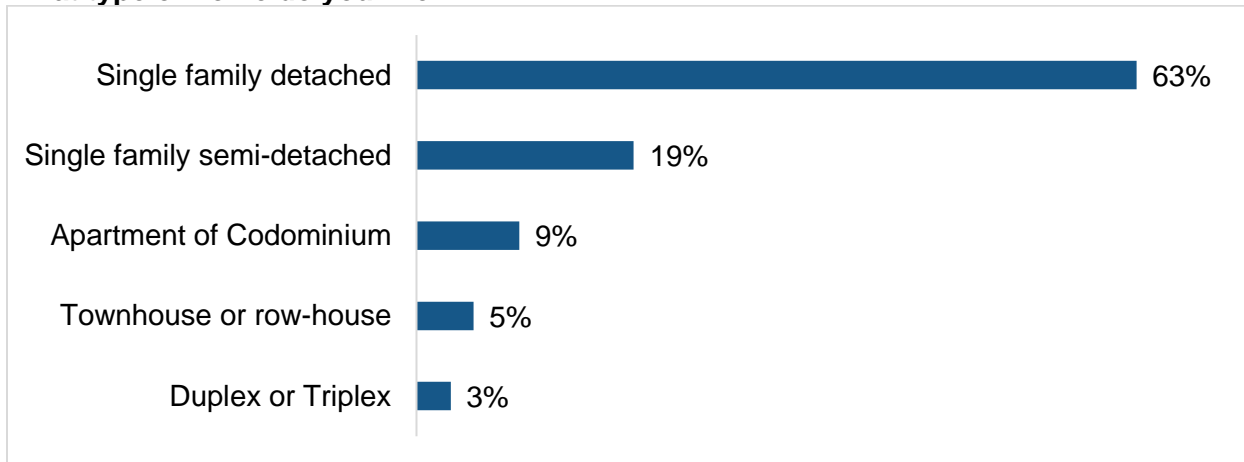
- French drains
- Cisterns
- Weeping tiles
- Back-up power
- Dry creek beds
- Ponds

Additional Feedback

Additional comments received via email (four emails) and through open text field in the survey are summarized below.

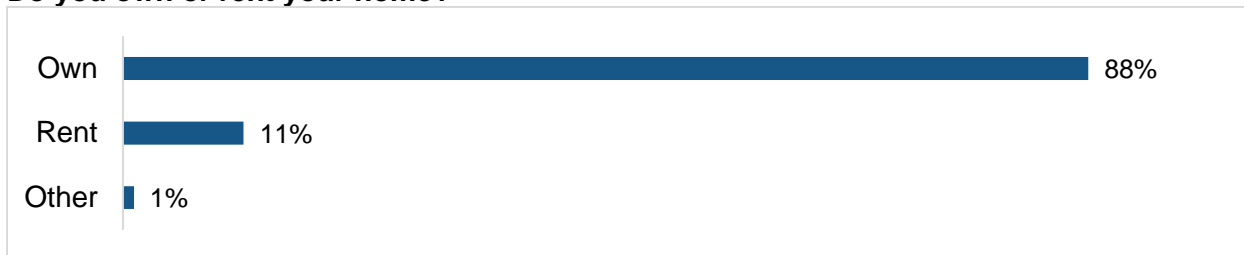
| Theme | Comments |
|---|--|
| Increased pavement and stormwater impacts | <ul style="list-style-type: none"> ● Residents continue to increase driveway size and paved yards, contributing to increased flooding ● Continued development, especially new condominiums, increase non permeable areas and are being built in areas that experience flooding; these need to be re-examined for stormwater mitigation |
| Suggested stormwater management initiatives | <ul style="list-style-type: none"> ● Introduce a stormwater charge ● Increase tree protection |
| Advocacy | <ul style="list-style-type: none"> ● Greater advocacy is needed to promote stormwater management features to property owners and condominium boards |
| Administration | <ul style="list-style-type: none"> ● Simplify the application processes for incentives (grants and subsidies) ● Provide an option to bundle incentive programs together |

What type of home do you live in?



950 respondents

Do you own or rent your home?



950 respondents

Most survey respondents were homeowners (88%) living in Toronto (96%), in single family homes that are either detached (63%) or semi-detached (19%).

What is your source of information on City programs, including those related to basement flooding or stormwater management? Respondents were able to select multiple options.



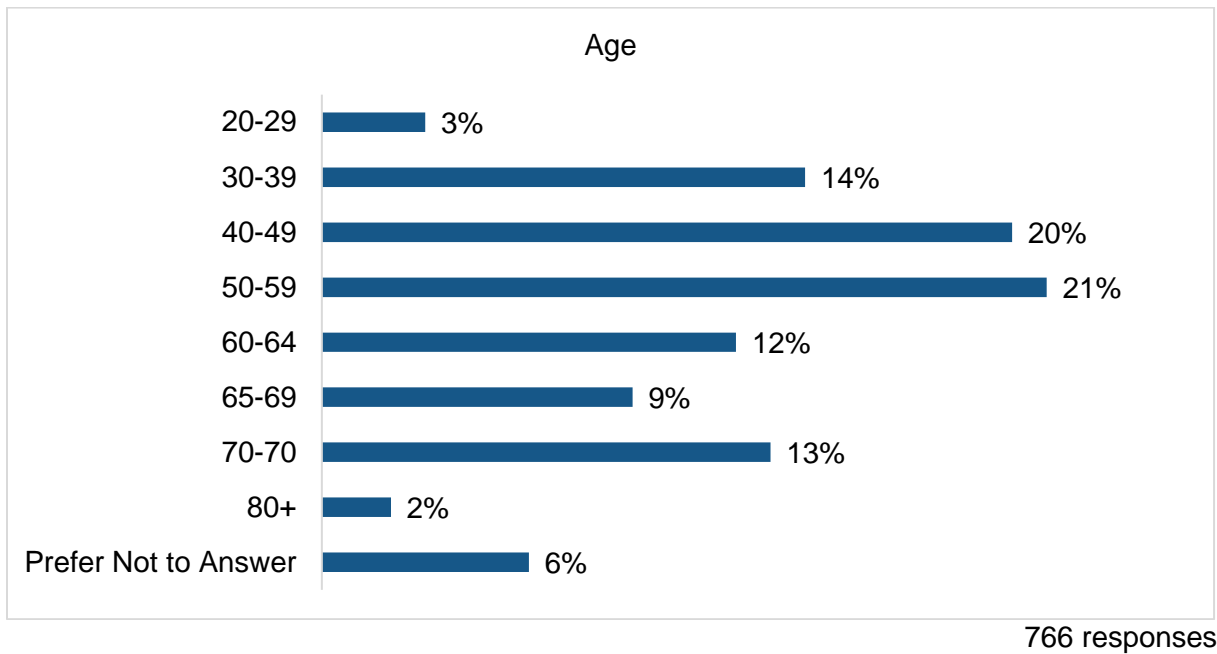
768 respondents

The most common source of information on basement flooding and stormwater management channel is via social media (50%). The top three ways in which survey respondents receive information on basement flooding and stormwater management is through their City Councillor, the City of Toronto website and via email lists.

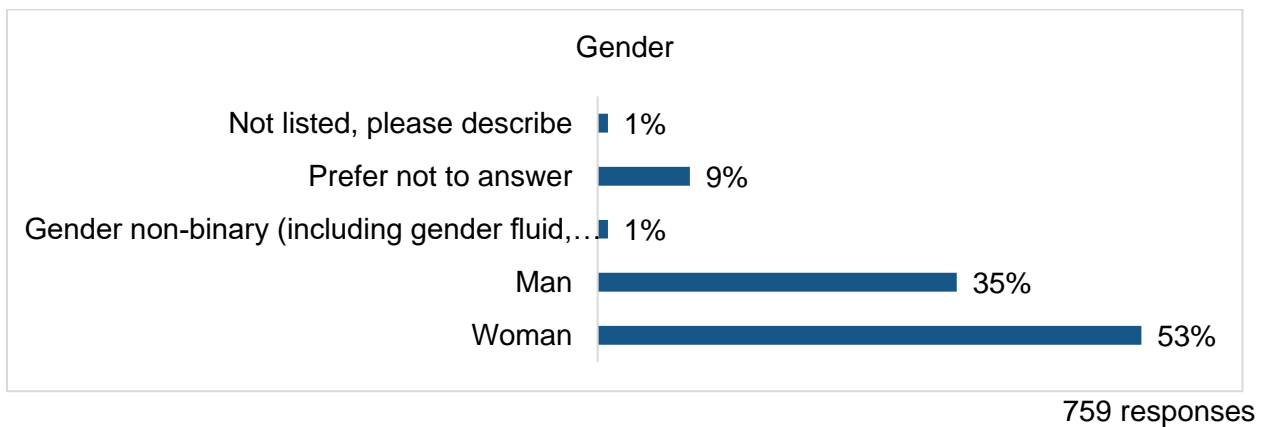
Suggested platforms for messaging include billboards, a print version of City calendars, direct mail, property tax and utility bills, door-to-door information, radio, television, social media advertising, school events, street festivals, and additional pop-up information days.

Demographics

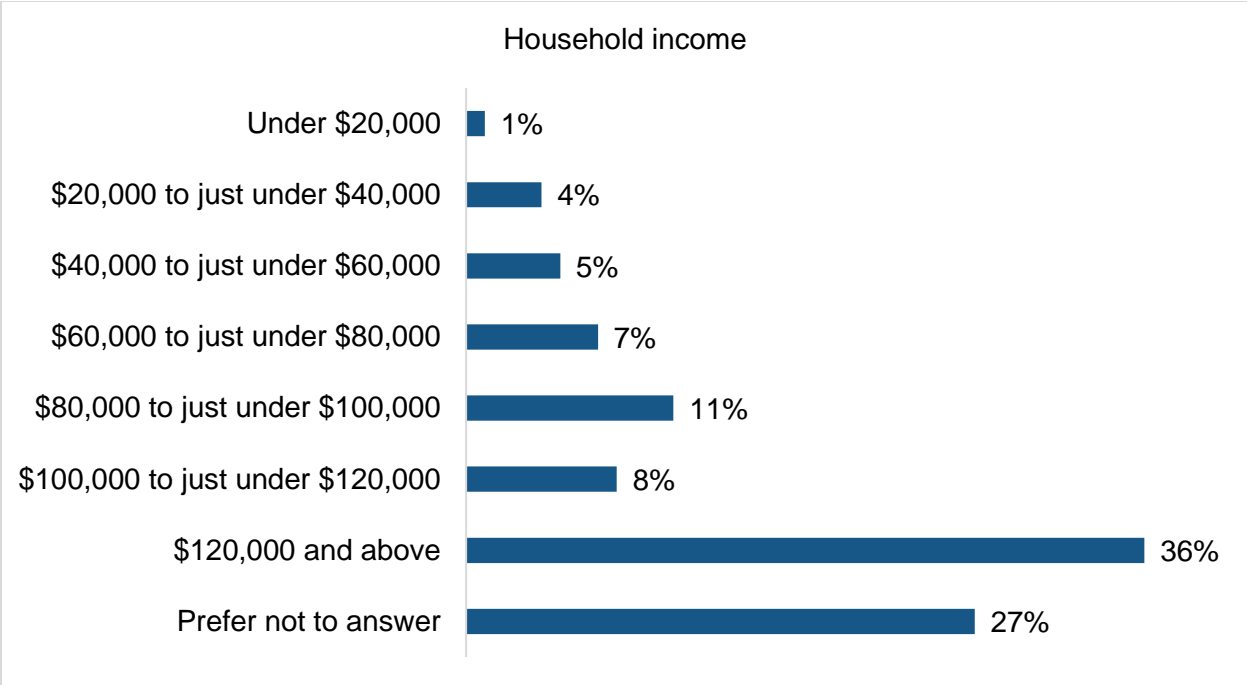
Over 700 survey respondents provided optional demographic information described below.



Most of the survey respondents (41%) were between the ages of 30 – 59.



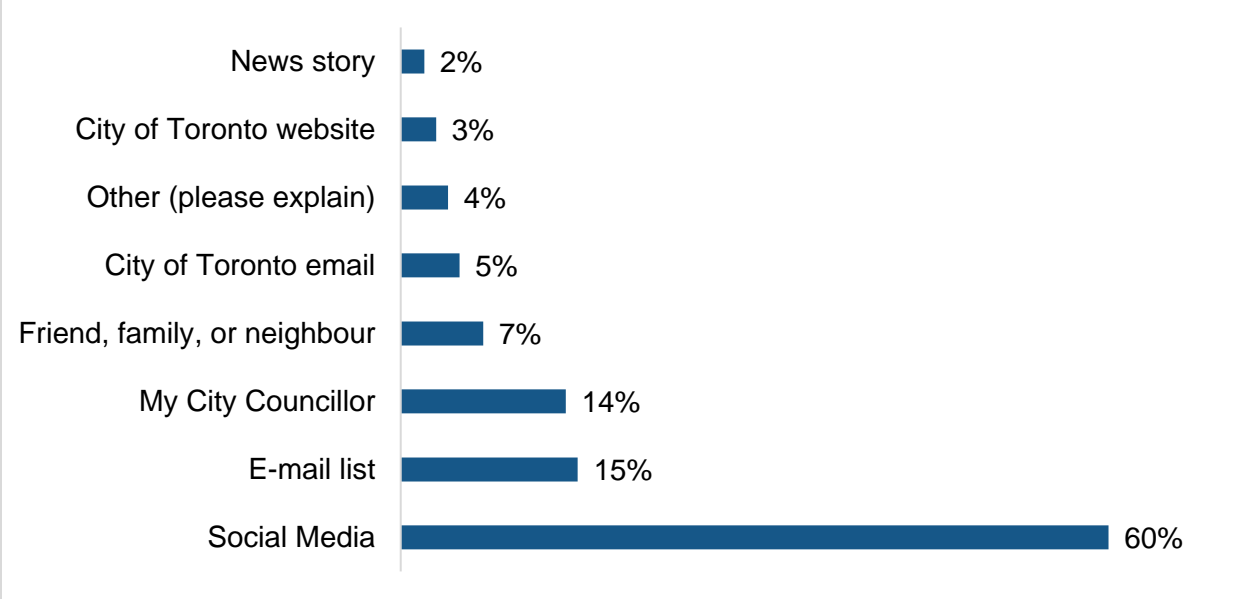
More women responded to the survey (53%) than any other gender identity.



760 responses

Most survey respondents were in the highest income category (36%), without factoring the income of those who preferred not to answer.

How did you hear about this consultation? (Multi-select)



760 responses

Most respondents heard about this consultation through social media (60%). This is likely reflective of the City’s use of social media to share organic and paid posts. The following most common information channels were emails lists (15%), City Councillor information (14%) and word of mouth through friends, family and neighbours (7%).