

Engagement Summary Report

Watershed Action Plan

City of Hamilton

60726856

September 2024

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1. Overview of Engagement

1.1 Background and Approach to Public Engagement

The City of Hamilton (the City) has been a participant in the **Hamilton Harbour Remedial Action Plan (HHRAP)** since its inception in 1985 and has implemented many projects through the Clean Harbour Program in the decades since that contribute to its objective: the formal delisting of Hamilton Harbour as a Canadian Area of Concern. Most of these projects have been to address point source pollution such as wastewater treatment plant upgrades and combined sewer overflow reductions.

To build on these past investments, the City is developing the **City of Hamilton Watershed Action Plan (the Plan)** to serve as a framework for actions to reduce non-point source pollution in Hamilton's watersheds.

To support the development of the Plan, the City has engaged with various interested community partners since 2022 to compile a list of potential actions and conducted an initial evaluation of the actions. The City then expanded its focus to engage the public in the spring and summer of 2024.

The objectives of engagement were to:

- ◆ Gather feedback and understand internal and external community priorities to inform the development of the Plan.
- ◆ Build support for the City's implementation of the Plan to improve Hamilton's watersheds.
- ◆ Educate the public and showcase actionable measures that the community can take to support watershed stewardship.

During the engagement period, the City met with interested parties to provide a forum for collaboration between the City and partners that have care and control over the watersheds within the City. This provided strategic direction and important consultation in the development of the actions and prioritization process for the Plan. The public engagement process further added to the development of the Plan through knowledge collection from virtual meetings, participation in local events and a City-wide online survey. This input helped the City understand the community's priorities and align the proposed actions with the community's interests. This helps to ensure that the Plan addresses public needs and concerns about Hamilton Harbour and its watersheds.

2. Community Partner Engagement

Engagement for the Plan began in 2022 when the City assembled a Liaison Committee consisting of partners from local organizations and internal City staff to develop the Plan based on recommendations from previous reports, studies and working groups. The Liaison Committee identified City specific non-point source watershed actions having the greatest influence on improving watershed and harbour conditions.

2.1 Liaison Committee

The Liaison Committee membership is structured to provide a balance of perspectives, knowledge and expertise and includes representation from the following groups:

- ◆ City of Hamilton
 - Public Works
 - Hamilton Water, Environmental Services, Engineering Services, Waste Management, Transportation
 - Healthy & Safe Communities
 - Recreation, Food and Water Safety, Indigenous Relations
 - Planning & Economic Development
 - Sustainable Communities, Heritage and Urban Design, Growth Management, Office of Climate Change Initiatives
- ◆ Hamilton Conservation Authority
- ◆ Conservation Halton
- ◆ Niagara Peninsula Conservation Authority
- ◆ Grand River Conservation Authority
- ◆ Royal Botanical Gardens
- ◆ Hamilton Harbour Remedial Action Plan

The Liaison Committee held 10 separate meetings during the development of the Plan and will continue to meet after the plan is formally presented to Council.

2.2 Community Partner and Outreach Meetings

In addition to the local organizations sitting on the Liaison Committee, engagement was also undertaken with the academic community, non-government organizations, various levels of government as well as with Indigenous Nations and First Peoples (reference section 2.3 for more information on Indigenous outreach). The Plan relied on maintaining open lines of communication with all these community partners and promoting consistent dialogue to gather feedback. With each milestone, community partners received updates from the Project Team and were provided the opportunity to voice opinions and/or schedule touchpoint meetings. The following community partners supported the development and will continue to support through the implementation of the Plan:

- | | |
|---|---|
| ◆ Bay Area Restoration Council | ◆ Ministry of the Environment, Conservation and Parks |
| ◆ Environment and Climate Change Canada | ◆ McMaster University |
| ◆ Environment Hamilton | ◆ Redeemer University |
| ◆ Green Venture | ◆ Mohawk College |

- ◆ Ontario Ministry of Transportation
- ◆ Fisheries and Oceans Canada

2.3 Indigenous Consultation

The Project Team values traditional Indigenous knowledge and recognizes that the City is home to many Indigenous people of various Nations and communities. With assistance from the City's Indigenous Relations staff, the Project Team contacted representatives of the Indigenous communities to provide comments on the Plan, which included:

- ◆ Six Nations of the Grand River Elected Council
- ◆ Mississaugas of the Credit First Nation
- ◆ Huron-Wendat Nation
- ◆ Circle of Beads
- ◆ Urban Indigenous Community Members
- ◆ Congress of Aboriginal Peoples
- ◆ Ontario Coalition of Indigenous Peoples

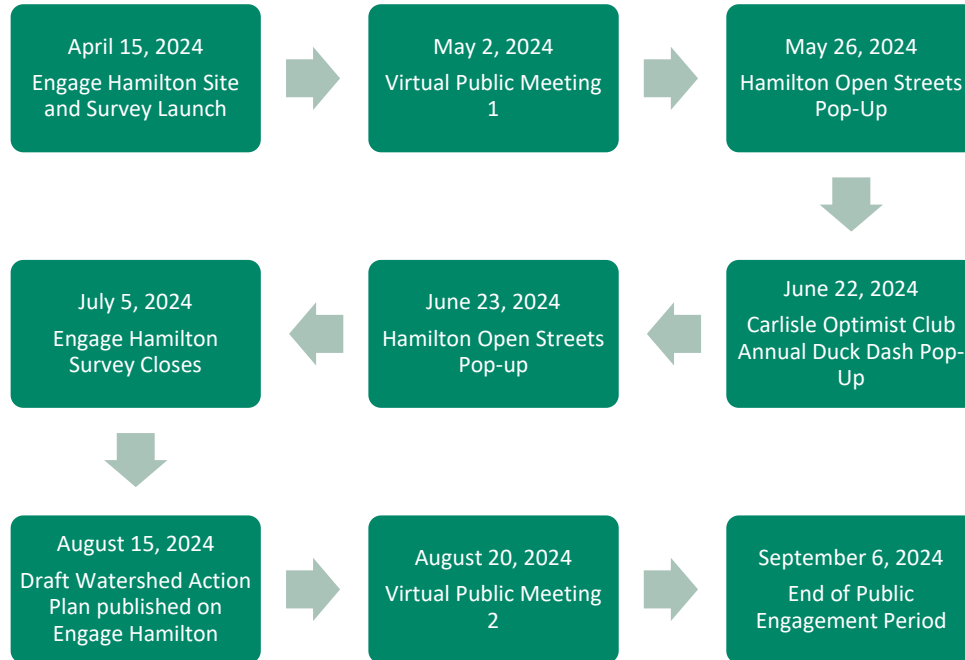
Correspondence was sent through email to the appropriate representatives in 2022, 2023 and 2024 advising of the Plan and asking for a meeting if they were interested in providing feedback. Meeting requests were received from members of the Six Nations of the Grand River Elected Council and Mississaugas of the Credit First Nation, which took place virtually on May 5, 2023, and February 26, 2024, respectively. The discussion included an overview of the Plan, re-stating the City's commitment to the Hamilton Harbour Remedial Action Plan, detailing the focus to non-point source pollution, and presenting potential actions that may be brought forward. A draft inventory of actions was sent to both First Nations and comments were received that detailed updates for current actions and potential additional actions to be considered.

The Plan follows an adaptive management approach and the City is dedicated to continuously enhancing relationships with Indigenous Nations and First Peoples through respectful dialogue and collaboration, ensuring that the voices of Indigenous peoples are heard and considered in municipal decision-making.

3. Public Engagement

To understand the community’s needs with respect to the Plan, City-wide outreach was conducted during the spring and summer of 2024 and “public priorities” were one of the five core evaluation criteria for the proposed actions. Public input was solicited via many methods, which are detailed in the timeline and within the following sections.

3.1 Public Engagement Timeline



3.2 Plan Website and Project Email

The Plan’s online presence was supported by three separate websites, including

- ◆ City’s Story Map - storymaps.arcgis.com/stories/641ebfdf3f124c52aca6d185f6494182;
- ◆ City’s Plan website - hamilton.ca/watershedactionplan; and
- ◆ City’s Engage Hamilton website - engage.hamilton.ca/watershedactionplan

Between January 1 and September 10, 2024, the Story Map was viewed 553 times with 2.19 average views per day and the City’s dedicated Plan website was viewed 768 times. These websites existed prior to the public consultation period and provided critical background information on the City’s past efforts, context of the Plan’s role in the larger Clean Harbour Program and provided basic project details.

The primary tool for public consultation and outreach was the project’s Engage Hamilton website which launched on April 15, 2024. As the main engagement hub, Engage Hamilton hosted the online survey, advertised virtual and in-person engagement opportunities, provided contact details for the Project Team and served to educate the public about watersheds and watershed stewardship. The Engage Hamilton project website was visited 892 times between April 15, 2024 and September 6, 2024.

The Engage Hamilton website included:

- ◆ The overall objectives and a broad overview of the Plan;
- ◆ A Frequently Asked Questions (FAQ) section that defined key terms and concepts; Information about pop-ups and virtual public meetings;
- ◆ The online survey;
- ◆ A link to the recorded virtual public meetings;
- ◆ An “Ask a Question” feature and “feedback” section for members of the public to comment on the plan and directly ask the Project Team questions;
- ◆ A dedicated response page detailing all feedback and questions from the public alongside the Project Team’s response;
- ◆ Related City reports, resources and links; and
- ◆ A copy of the draft Plan.

A complete list of the questions received, and answers provided by the Project Team through Engage Hamilton’s “Ask a Question” feature are provided in Appendix A alongside a list of comments received on the draft Plan and several questions submitted via email. The contact details for the City’s Senior Project Manager and Project Manager were also listed on the Engage Hamilton website.

3.3 Community Survey

A City-wide survey was administered during the engagement period and was the primary source of gathering feedback to inform the development of the draft Plan. The survey was available online on the Engage Hamilton website from April 15, 2024 to July 5, 2024 and yielded 136 responses.

More information on survey responses can be found in Section 3.5 “What We Heard”. Survey questions and a full, detailed summary of the results can be found in Appendix B.

3.4 Virtual Public Meetings

During the engagement period two virtual public meetings were held to provide an overview of the Plan, encourage attendees to complete the survey and respond to questions from the public in advance of the Plan’s presentation to City Council for final approval. The presentations are available on the City website and a list of questions received during both meetings is in Appendix C.

3.4.1 Virtual Public Meeting 1

On Thursday May 2, 2024 the Project Team hosted the first virtual public meeting. The purpose of the meeting was to introduce and provide an overview of the Plan and how the community can share their feedback, address questions, and encourage the completion of the online survey and advertise the remaining engagement opportunities. The first meeting was held from 6:30 p.m. to 8:00 p.m. with participants attending virtually over Zoom. A total of 31 individual registered for the meeting and 18 attended. After the meeting, a recording was posted to the Engage Hamilton website.

To begin the meeting, the Project Team welcomed attendees, opened with a Land Acknowledgement, and provided the meeting agenda. The topics presented included:

- ◆ The project goals;
- ◆ The history of Hamilton Harbour;
- ◆ Information on what is causing pollution in the harbour;
- ◆ Introduction of the Hamilton Harbour Remedial Action Plan;

- ◆ The City's community partners;
- ◆ Details about watersheds;
- ◆ Non-point versus point source pollution;
- ◆ Progress made so far;
- ◆ Types of actions (e.g., capital projects, policy changes and operations changes);
- ◆ Action selection and review process;
- ◆ Action groups (water quality, quantity, natural habitat, and education); and
- ◆ Things the public can do to help and a project timeline.

Following the presentation, the Project Team facilitated a question-and-answer session to clarify project details and respond to comments. A complete question-and-answer list is available in Appendix C of this report.

To wrap up the session, the Project Team provided their contact information and attendees were encouraged to complete the online survey and to reach out to the Project Team if they had additional feedback.

3.4.2 Virtual Public Meeting 2

On Tuesday August 20, 2024 the Project Team hosted a second virtual public meeting. This meeting provided an update on the Plan, demonstrated how public feedback was incorporated in the draft Plan, addressed questions and discussed next steps for finalizing and implementing the Plan. This meeting was scheduled from 7:00 p.m. to 8:00 p.m. with participants attending virtually over Zoom. The meeting was extended to 8:15 p.m. due to the volume of questions. A total of 63 individuals registered for the meeting and 29 attended. After the meeting, a recording was posted to the Engage Hamilton website.

To begin the meeting, the Project Team welcomed attendees, opened with a Land Acknowledgement and provided the meeting agenda. The topics presented included:

- ◆ A project recap;
- ◆ The focus of the Plan;
- ◆ The Plan's vision and goal;
- ◆ The Plan's five main objectives;
- ◆ Past public engagement;
- ◆ What the Project Team heard from the public;
- ◆ Revised action evaluations;
- ◆ Action evaluation examples;
- ◆ Funded actions and the draft top ten priority actions;
- ◆ The project timeline; and
- ◆ The plan's adaptive management approach.

Following the presentation, the Project Team facilitated a question-and-answer session to discuss specific comments related to the draft Plan and responded to any other concerns. A complete question-and-answer list is available in Appendix C of this report.

To wrap up the session, the Project Team provided their contact information and attendees were encouraged to review the draft Plan posted on Engage Hamilton.

3.5 Pop-Up Informational Booths

Four in-person pop-up booths were held during the engagement period:

- ◆ Sunday, May 26, 2024, at the Hamilton Open Streets Festival on King Street
- ◆ Saturday, June 22, 2024, at Carlisle Optimist Club's Annual Duck Dash
- ◆ Sunday, June 23, 2024, at the Hamilton Open Streets Festival on King Street
- ◆ Monday, July 1, 2024, at the Bayfront Park Canada Day Celebrations

The pop-up booths invited members of the public to learn more about the Plan by speaking with Project Team members or by reviewing informational panel boards. Pop-up booth staff also distributed postcards that contained basic project information and links to associated websites and the online survey (links were provide as written URLs and as a QR code). To enhance engagement with the community, Project Team members also asked the public watershed-related trivia questions with the opportunity for attendees to win prizes such as Hamilton Water pens and reusable water bottles. The Project Team also had tablet computers for members of the public to complete the online survey (any individuals unable to complete the survey themselves on the tablet had the option to complete the survey verbally with a member of the Project Team).

Digital versions of the informational panels and postcards are available in Appendix D.

3.6 What We Heard

Highlights of key survey responses and comments and concerns received through public engagement are summarized in the subsections that follow. The complete survey results are available in Appendix B.

3.6.1 Key Survey Responses

Respondents believe that waterbodies within Hamilton are important

Most survey respondents indicated that Hamilton Harbour, the city's waterbodies and the natural environment are either very important (90%) or important (7%).

Respondents most value biodiversity and wildlife habitat

Respondents ranked aspects of Hamilton Harbour, waterbodies, and the natural environment in order of importance:

1. Biodiversity and natural habitat (average ranking 1.5)
2. Scenic beauty and natural landscapes (average ranking 2.39)
3. Recreational opportunities (average ranking 3.04)
4. Economic contributions (average ranking 3.89)
5. Cultural and historical significance (average ranking 3.96)

Water quality is the top concern among respondents

Respondents ranked the following issues in order of concern:

1. Water quality (average ranking 1.42)
2. Loss of wildlife habitat (average ranking 2.11)
3. Water quantity (average ranking 3.02)
4. Access to recreation (average ranking 3.4)

Combined sewage overflows are the top water quality concern among respondents

Respondents ranked water quality concerns in order of importance:

5. Untreated combined sewage overflows (average ranking 1.96)
6. Runoff from roads (average ranking 2.93)
7. Runoff from the land surface (average ranking 2.98)
8. Algal blooms (average ranking 3.47)
9. Debris or litter (average ranking 3.54).

Stormwater management is the top water quantity concern among respondents

Respondents ranked water quantity concerns in order of importance:

1. Lack of stormwater absorption methods (average ranking 1.91),
2. Lack of stormwater control policies (average ranking 2.2)
3. Shoreline erosion (average ranking 2.87)
4. Flooding (average ranking 2.94).

Types of actions that the City should implement

Respondents were closely aligned on what actions the City should take or implement with little separation between the scores for the various actions; actions were ranked as follows:

1. Enhancing green infrastructure (average ranking 2.57)
2. Strengthening pollution control regulations (average ranking 2.59)
3. Supporting habitat restoration projects (average ranking 2.9)
4. Making changes to City practices like salt application and street sweeping (average ranking 2.95)
5. Educating the community about rural and urban stormwater and its impacts to the overall health of watersheds and the environment (average ranking 3.84)

3.6.2 Other key themes

All actions should be implemented.

As noted above, 97% of survey respondents consider Hamilton Harbour, Hamilton's waterbodies and the environment important or very important. This sentiment was echoed in conversations with the public at in-person pop-up consultations, in virtual meetings and in the open-ended survey questions. Many people expressed support for the Plan and believe that the City should implement everything suggested.

More support is needed to take action at home.

Many people who took part in public engagement, especially at pop-up consultations, expressed a willingness to modify their behaviour at-home to help reduce their impact on the City's watershed. However, several comments suggested that the City should better promote available resources. Highlighting City resources would help the public learn about the "how and why" for some of the suggestions noted in the Plan's "How You Can Help" material. Consequently, a resources section was developed and integrated into the draft Plan.

4. Next Steps

Community Partner, Indigenous and public input has been reviewed, considered, and integrated into the Plan. With this critical step completed, the Plan will be presented in a Recommendation Report that will be brought forward to City Council. Once approved, the Plan is expected to move into the implementation phase in 2025. The Project Team will provide regular updates to City Council to detail progress and outline any challenges.

The Plan is designed to follow an adaptive management approach. This means that implemented actions will be monitored, evaluated and/ or adjusted regularly. As more data and information becomes available, new actions will be created, old actions will be completed, the list of pending actions will be re-prioritized and reported to Council for resourcing with support from the technical committee. Additionally, an assessment of any unforeseen factors (e.g., climate change impacts, economic conditions, new regulations, etc.) can be used to inform which actions to implement next.

Appendix A. Engage Hamilton “Ask a Question” and Feedback

Comment Source	Theme	Comment	Response
Engage Hamilton “Ask a question” feature	Water quality and quantity	Are there any plans to install permanent monitoring station(s) on some of the watercourses that drain into the harbour to get baseline data, and then track the effectiveness of the remedial measures, both for water quality and water quantity?	<p>We currently collect water quality data from the City’s watercourses on a monthly time period mainly through the City’s Surface Water Quality Program. In the near future, we are looking to enhance this program by adding more sites and/or a shorter sampling frequency (e.g., biweekly sampling). This will further support the collection of baseline data.</p> <p>Through the Watershed Action Plan, there are a couple actions that may be prioritized that recommend an even greater enhancement of the Surface Water Quality Program to better delineate the sources of phosphorus, sediment, and chloride throughout the City’s watercourses. To support this action, the City will review options, such as installing either temporary or permanent monitoring stations on some of the watercourses that drain into the harbour. The required power, maintenance and security needs will also have to be considered when deploying the monitoring stations. When complete, this will allow us to better track areas of concern and the effectiveness of some of the remedial measures that will be delivered through the Action Plan.</p>
Email to Project Team	Water quality	What are you doing on the MAJOR CONCERNS ON WATER SHED FROM big business. IE.. AIM IRON AND METAL.. TRIPLE M METAL.. They both have a poor barrier for water running off and ground	In Hamilton, the Environmental Monitoring and Enforcement (EME) division, part of Hamilton Water, oversees commercial and industrial sewer use through the City’s Sewer Use By-law. This team is responsible for sampling water from sewer, wastewater, and surface water systems, delivering the samples to the lab for analysis, and taking necessary enforcement actions based on the results.

		<p>contamination. Filling storm drains with contaminated soils and water. How About Windemere Basin. All the washed off scrap metals are leaching in the ground and Basin.</p>	<p>While users are responsible for ensuring their discharges comply with by-law provisions, the City reserves the right to inspect industrial, commercial, and institutional properties and take samples as needed. EME works closely with the Ministry of Environment, Conservation and Parks (MECP) to ensure compliance with the Canadian Environmental Protection Act and to manage any discharges or spills that deviate from expected quality or quantity. This includes reviewing sewer maps, assessing potential impacts, locating outfalls, and coordinating clean-up efforts. EME staff are available 24/7 to respond to reported spills.</p> <p>When a violation of the Sewer Use by-law is identified, EME staff follow a progressive intervention process to achieve compliance. However, severe violations may result in formal charges. More information is available on the Commercial Water and Sewer section of the City of Hamilton website.</p> <p>Many private companies that discharge waste to the environment also receive an Environmental Compliance Approval (ECA) from the MECP to ensure their stormwater systems, including any stormwater management facilities, meet regulations. The ECA would generally require companies to properly operate and maintain their systems, meet sampling and reporting requirements, and achieve specific goals for their discharges.</p> <p>To report a sewer spill quickly and ensure immediate investigation, please call the City Contact Centre at 905-546-2489. The Contact Centre is available 24/7, records all reports, and can arrange for prompt dispatch and investigation.</p>
Email to Project Team	Water quality	Are there plans to work with the rural community to reduce the nutrient load at source or to do stream restoration in the urban area to catch nutrients along the way?	Yes, the City plans to work with the rural community through the Conservation Authorities to reduce the nutrient load at source. As part of our 145 km of managed watercourses, we are also identifying and prioritizing stream restoration projects in the urban area to catch nutrients along the way. These two concerns are currently in our draft prioritized actions.

Comment Source	Theme	Comment	Response
Comment on Draft Watershed Action Plan	Water quality and habitat	Huge challenges have been included in this exercise. Kudos! I am especially hopeful that the terrible state of Harbour water will help to protect upstream wetlands that provide habitat for so many species in addition to filtering our water.	Thanks for the encouragement as we strive to support healthy watersheds and the eventual delisting of Hamilton Harbour.
Comment on Draft Watershed Action Plan	Water quality	<p>I'm curious about the effectiveness of the cities CSO tanks. Due to the increased storms we're having, how often are the tanks actually releasing into the harbour? The Blue Algae at Bayfront and pier 4 seem to be getting worse every year. Is this due to more agricultural run off or is it more CSO tanks dumping?</p> <p>This year seems to be the worst I've seen in years. Lots of dead birds and Fish. Native species like catfish, pike, Bass are being seen washed up, Carp as well.</p>	<p>Thanks for the thoughtful question.</p> <p>As you are likely aware, the City has areas with older infrastructure with a combined sewer system (CSS) that conveys both sanitary wastewater and stormwater runoff through a single-pipe to the Woodward Sewage Treatment Facility (see Sewer System). During a precipitation event, the capacity of the CSS, which includes the nine CSO tanks may be exceeded by the total flow which would result in a combined sewer overflow (CSO) to the environment.</p> <p>The City reports the volume of CSOs for all monitored overflow locations at the following website: CSO Overflows. There is a pilot study that has recently been launched that aims to install real-time monitoring at 14 additional locations. In addition, the City has invested in a real-time control project that improves the use of current infrastructure by maximizing the CSS capacity within the pipes to limit CSOs and improve flood protection (see Real-Time Controls).</p> <p>From this information above, and as expected, CSO events are greatly influenced by the amount and intensity of rainfall and snowfall that occurs in the City every year. Table 1 details the amount of CSOs that have occurred annually with respective annual rainfall amounts.</p>

			<p>Table 1 (monitored overflow volumes vs rainfall in the past 5 years):</p> <table border="1"> <thead> <tr> <th>Year</th> <th>Annual CSO Volume (million litres)*</th> <th>Annual Rainfall (mm)</th> </tr> </thead> <tbody> <tr> <td>2020</td> <td>2,352</td> <td>622.8</td> </tr> <tr> <td>2021</td> <td>4,060</td> <td>833.3</td> </tr> <tr> <td>2022</td> <td>2,374</td> <td>585.8</td> </tr> <tr> <td>2023</td> <td>3,808</td> <td>877.4</td> </tr> <tr> <td>2024</td> <td>2,481**</td> <td>504.5**</td> </tr> </tbody> </table> <p>* includes only monitored volumes **includes CSO and rainfall totals up to July 15th, 2024</p> <p>As you can see from Table 1, the total monitored CSO volume in 2024 (up to July 15th) is already similar to the total annual volume from 2020 and 2022 due mainly to the very wet spring that the City has experienced. This increased rainfall would also likely drive other nutrient/sediment inputs into the Harbour from poor agriculture management, erosion of watercourses, and other urban and rural sources. Algae growth would then proliferate from these elevated levels of nutrients, like phosphorus. The decomposition of the algae can then have impacts on oxygen levels within the Harbour and can impact aquatic life.</p> <p>The City remains committed to capturing and treating as much combined sewage as possible to limit impacts on the environment.</p>	Year	Annual CSO Volume (million litres)*	Annual Rainfall (mm)	2020	2,352	622.8	2021	4,060	833.3	2022	2,374	585.8	2023	3,808	877.4	2024	2,481**	504.5**
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<p>Comment on Draft Watershed Action Plan</p>	<p>Other</p>	<p>The labels on the "combined" and "separate" sewer system illustrations appear to be reversed. You might want to fix that.</p>	<p>Thanks for identifying this mistake. We will update the illustration with accurate labelling.</p>																		

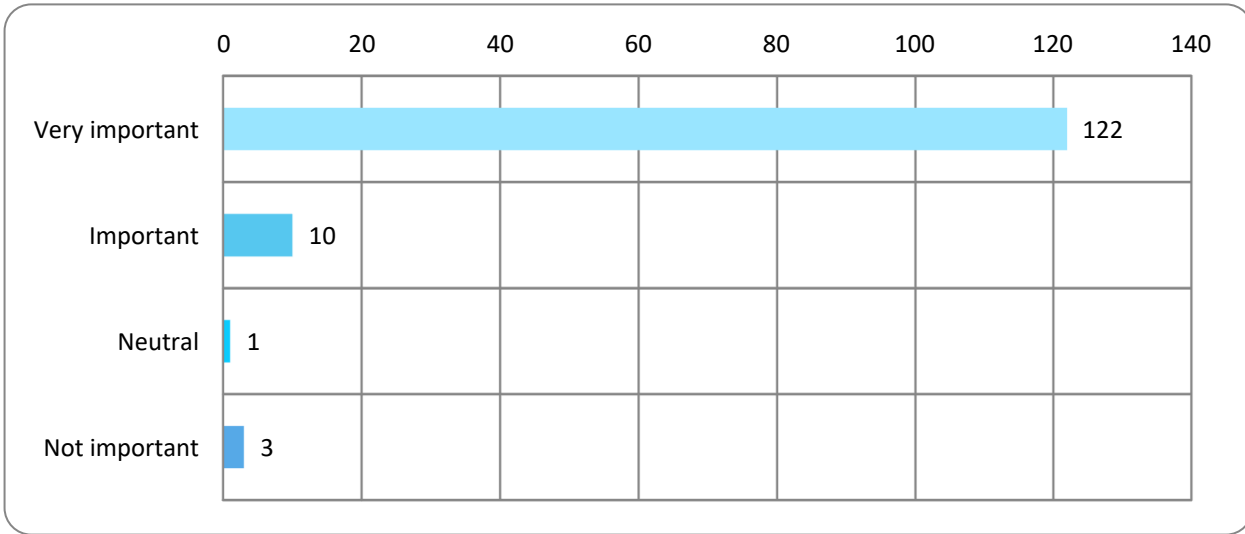
<p>Comment on Draft Watershed Action Plan</p>	<p>Water quality</p>	<p>Are there no CSO tanks on the mountain? If not, wouldn't it be logical to collect and treat sewage and wastewater before it flows down to the overburdened infrastructure of the lower city. It seems that with rampant development on the mountain and increasing climatic events, no effective solution will be realized without a considerable investment in new infrastructure throughout the entire city.</p>	<p>There are no CSO tanks on the Mountain, but a report has been completed to assess next steps to limit flooding and combined sewage from entering the harbour. A flooding and drainage improvement framework was completed in February 2022, which acts as a roadmap that guides the City towards improved drainage system performance. The completed assessment has recommended a significant capital investment and infrastructure program that has a total program value exceeding \$1B (over 20+ years). Recommended strategies are focused on the managed sewer separation, with an effort to build separated storm sewer infrastructure within the combined sewer system where it does not currently exist today.</p> <p>In addition, it will be necessary to connect that new infrastructure to existing or new storm sewer outlets conveying flow to the natural environment and reducing inflow to the existing combined sewers. Beyond managed sewer separation, additional recommendations are made to provide support for increased levels of sewer system service to the community in the form of sewer rehabilitation, underground storage, major system conveyance improvements, inlet controls, green infrastructure, and private property measures.</p>
<p>Comment on Draft Watershed Action Plan</p>	<p>Water quality</p>	<p>Section 3.2. The combined and separated sewer pictures are backwards. Manage the birds on the beaches in Hamilton Harbour. They contribute to the some of the pollution closing the beaches. Action plan Objective 2: The City spreads way too much salt during the winter. Section 5.1 - Educate people to reduce the use of salt on sidewalks. Some residents use salt instead of a shovel to clear their sidewalks</p>	<p>Thanks for identifying this mistake. We will update the illustration with accurate labelling.</p> <p>One of the funded actions in the Watershed Action Plan is to continue to control waterfowl (bird) populations around the harbour and the City's watersheds, which should support your second point.</p> <p>An action pending approval is to strengthen the salt management plan by enhancing the water quality lens when applying salt across City infrastructure. We have also highlighted some valuable links in Section 5.1, as you have indicated, of what people can do to support minimizing salt use at home.</p>

Appendix B. Community Survey

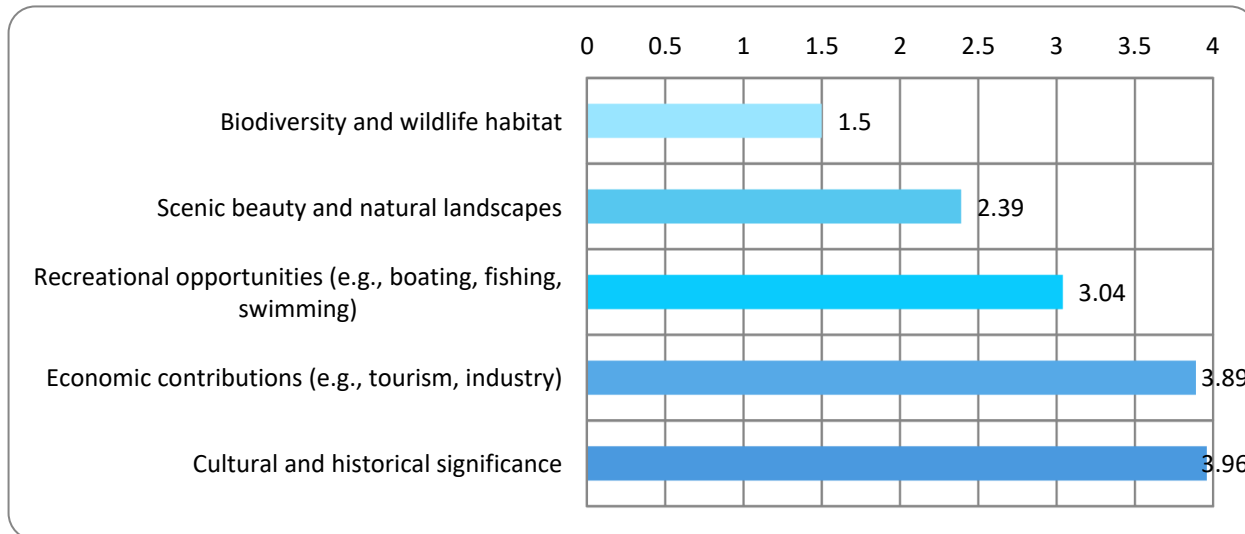
Survey Open: April 15 to July 8, 2024

Number of Survey Submissions: 136

1. How important is Hamilton Harbour, our waterbodies and natural environment to you?



2. What aspects of Hamilton Harbour, our waterbodies and natural environment do you value most? (Lower values were more important to the public)



3. Are there other aspects of Hamilton Harbour, our waterbodies and natural environment that are important to you? (Open-ended, optional - themed)

Water quality and safety: Respondents want drinkable, fishable and swimmable local water, emphasizing the need for modern infrastructure to reduce water quality risks such as the Randle Reef contamination and the impact of raw sewage leaks on people, pets, and the environment.

Policy and governance: Keeping waterbodies clean through measures like fining polluters and affirming the Conservation Authorities' power to protect the watershed is mentioned.

Environmental protection and biodiversity: There is a strong emphasis on protecting nature and wildlife, with specific mentions of the salmon migration and habitat.

Accessibility and health benefits: Survey participants highlight the health benefits of spending time in natural spaces and the health benefits of purifying the City's water sources.

Public access and equity: Respondents want to keep the waterfront accessible to everyone, opposing private developments that block access to the water and improving waterfront access for pedestrians and cyclists.

Climate change and resilience: The community is concerned about climate change mitigation, flood protection and resilience during floods. There is a call for protecting waterbodies and natural environments as key components in climate mitigation.

Cultural and historical significance: Respondents recognize the cultural importance of waterbodies to Indigenous communities and the importance of preserving Indigenous history and culture surrounding the harbour.

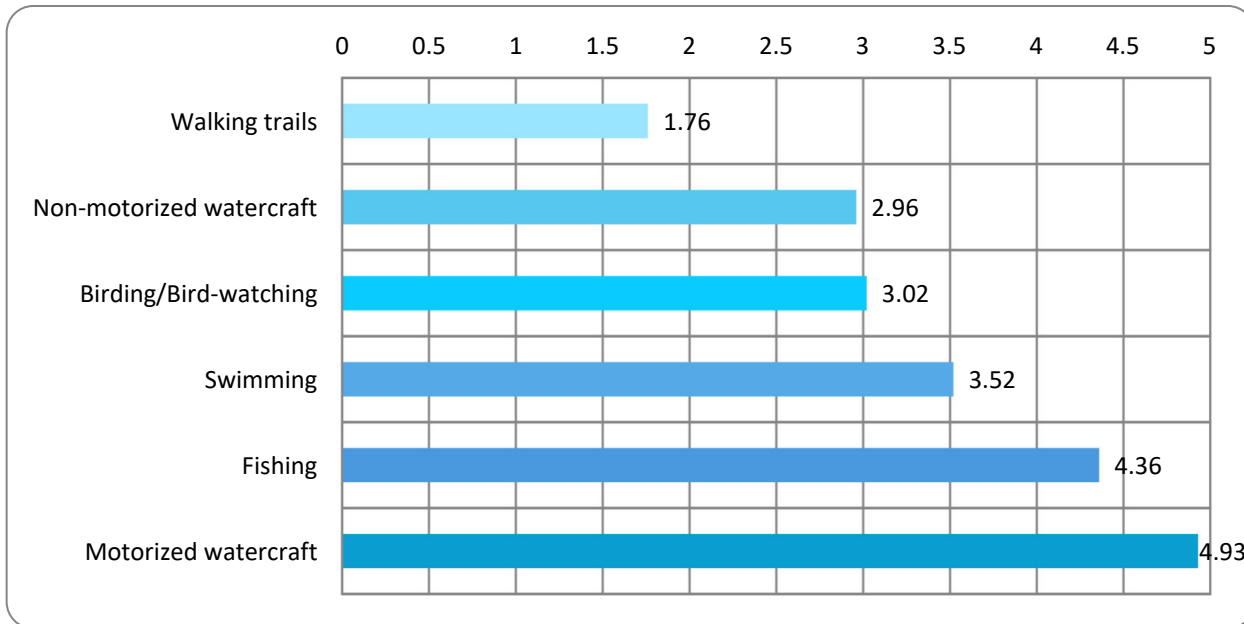
Community engagement and educational value: Respondents express a desire for opportunities to get involved in shoreline restoration, protection, and clean-ups, as well as the preservation of the natural environment for educational purposes. In addition to its recreational value, the harbour is seen as a perfect spot for place-based learning, with its healthy shorelines providing opportunities for children to deepen their understanding of biodiversity and its protection.

Natural infrastructure and ecosystem services: The survey responses underscore the importance of protecting natural infrastructure like wetlands and trees, which provide ecosystem services such as flood control and water purification.

Sustainability and legacy: There is a desire to protect waterbodies and the natural environment for future generations, with a focus on equitable and easy access to swimming areas and maintaining high water quality standards.

These themes reflect a community invested in the health and sustainability of Hamilton Harbour, valuing its natural, cultural, and recreational assets while advocating for responsible stewardship and inclusive access. The sense of civic pride that comes with environmental achievements is also of importance to the community.

4. What recreational activities do you enjoy either near or in the water? (Lower values were more important to the public)



5. Are there other recreational activities that you enjoy either near or in the water? (Open-ended, optional - themed)

Water-based activities: Many respondents enjoy activities such as kayaking, paddleboarding and canoeing. There is also a desire for clean and safe swimming areas, as well as facilities for secure kayak storage near Bayfront or Pier 4 parks.

Nature observation and photography: Respondents value the biodiversity around Hamilton and engage in activities like wildlife watching, photographing flora and fauna, and observing nature’s beauty.

Relaxation and meditation: Activities such as sitting along the water’s edge, meditation, and ‘grounding’ are mentioned as ways to reconnect with the environment.

Cycling and skating: Cycling along waterfront trails and ice skating are popular activities, although concerns about the impact of climate change on winter sports are noted.

Picnicking and socializing: Respondents indicate a preference for picnicking, attending cultural events and socializing with friends and family in natural settings.

Art and music: Enjoying art installations, music events and engaging in artistic activities like painting or playing music in natural surroundings are highlighted.

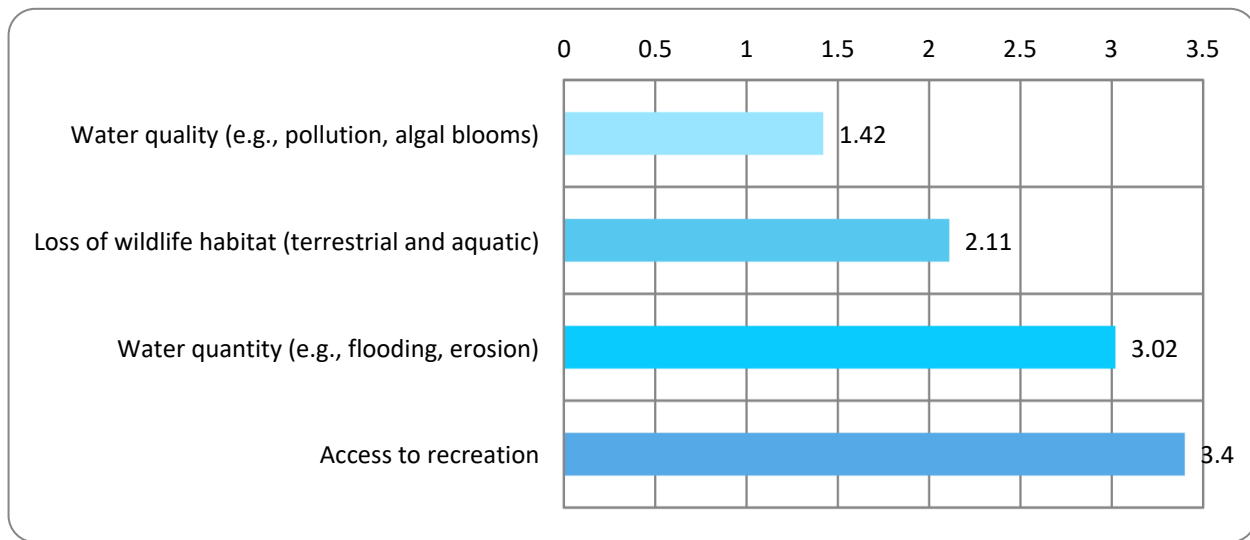
Community and cultural events: Respondents appreciate attending festivals, food events and group cultural activities that take place near or in natural spaces.

Conservation and restoration: Some respondents are actively involved in conservation efforts, such as planting native vegetation, participating in citizen science projects, and leading educational hikes.

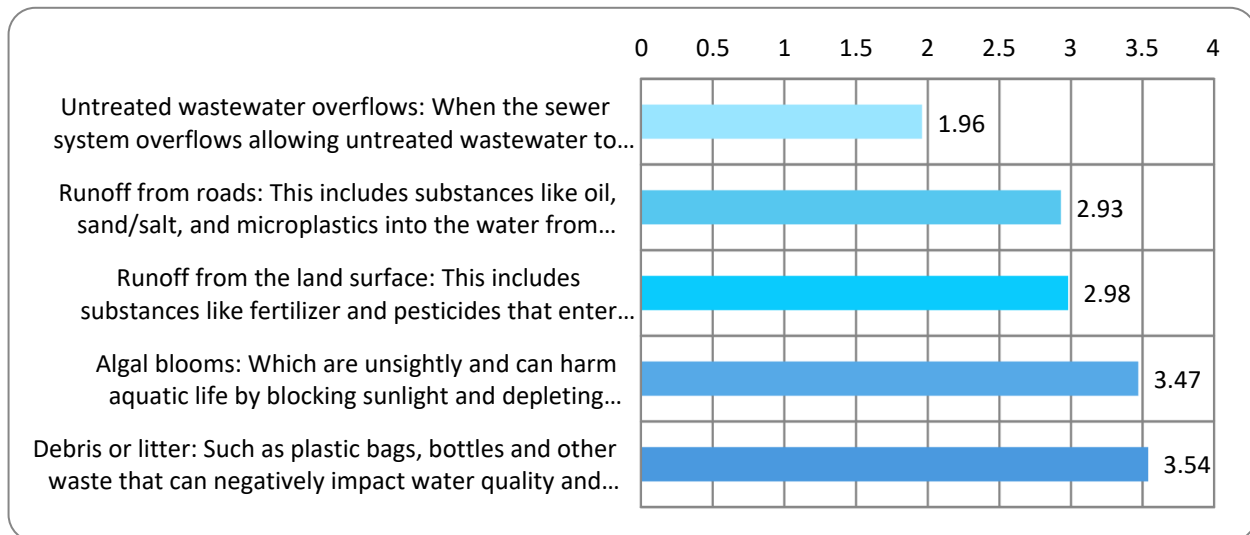
Other comments: In addition to the activities identified, there is a strong emphasis on the need for more outdoor educational activities, particularly for youth, to learn about local ecology and the global climate emergency. There is also a call for better accessibility for people with disabilities, improved washroom and change room facilities and the provision of food trucks and drink stands.

These themes reflect a community that values a wide range of recreational activities that connect them to the natural environment, promote relaxation and social engagement and foster a sense of stewardship and education about the local ecosystem.

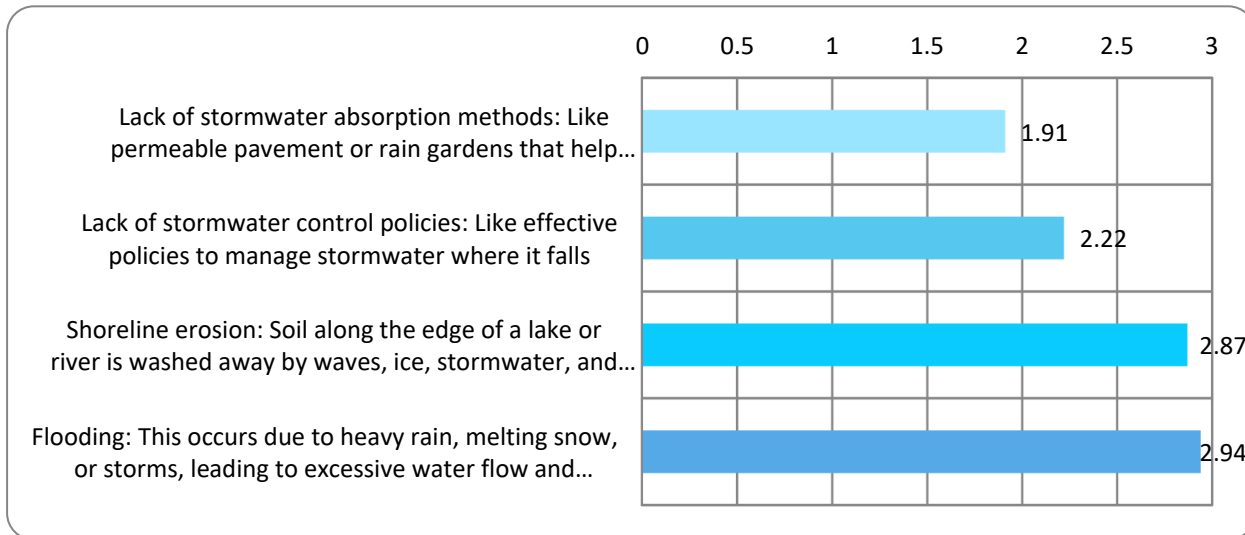
6. What are your biggest concerns about Hamilton Harbour, our waterbodies and natural environment? (Lower values were more important to the public)



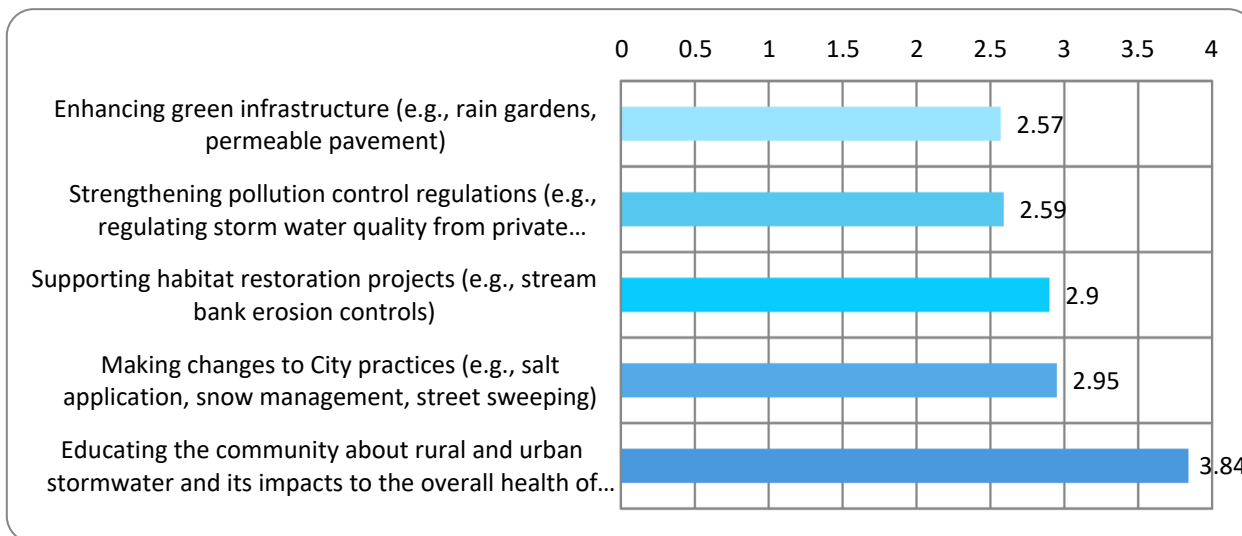
7. What water quality issues do you believe should be addressed as the highest priority? (Lower values were more important to the public)



8. Which water quantity issue do you believe should be addressed as the highest priority?
(Lower values were more important to the public)



9. What types of actions do you believe the City should take to help improve and protect Hamilton Harbour, our waterbodies and natural environment? (Lower values were more important to the public)



10. Are there other types of actions you believe the City should take to help improve and protect Hamilton Harbour, our waterbodies and natural environment? (Open-ended, optional - themed)

Meaningful action and accountability: Respondents emphasize the need for the City to take meaningful action to protect the environment, with suggestions such as enforcing commercial and multi-residential waste management standards and imposing fines for pollution.

Policy changes: There is a call for policy that supports infrastructure improvements like disconnecting downspouts from sewers, mandatory green infrastructure for new builds and stormwater retention ponds to reduce erosion and loadings during wet weather events.

Waste management and reduction: Respondents propose actions like weekly park litter clean-ups, city-wide waste diversion programs, waste bins in parks and educating the public on the dangers of littering, especially regarding micro- and nano-plastics.

Enhancing biodiversity and building resilience: The need to treat environmental issues as an emergency is highlighted, with suggestions for upstream habitat restoration, protection of natural land along the lake shore, prioritizing wetland protection and setting evidence-based targets for restoration.

Public access and recreation: Respondents want to ensure public access to natural spaces is maintained and that private development does not limit free access to the bay and beaches. More recreation centre programs that connect residents to natural spaces was also suggested.

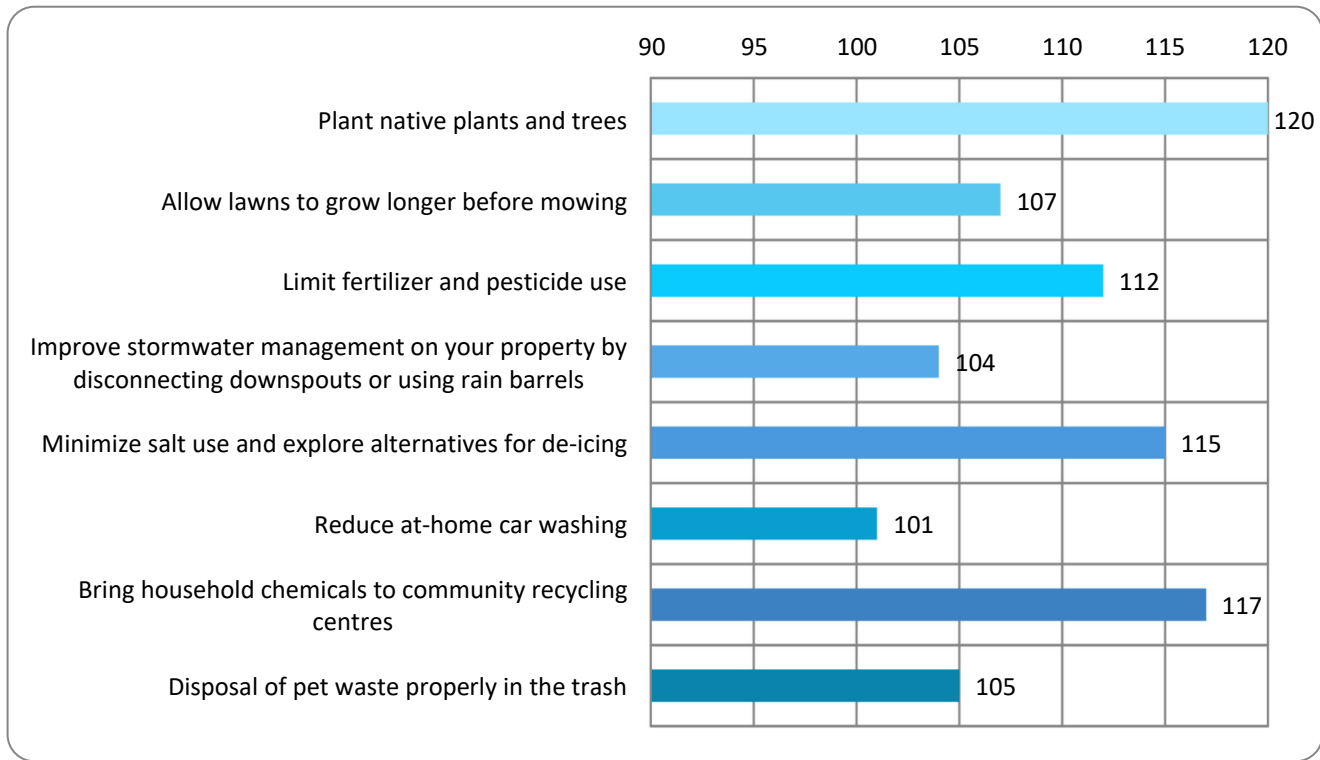
Education and awareness: There is a call for more public education on environmental protection and issues such as the harm of salting to water systems, as well as campaigns to raise awareness and provide alternatives to road salt.

Stormwater management: Suggestions include incentivizing rain gardens, mandating bioswales, restoring stream buffers, and reducing salt application to manage stormwater effectively.

Collaboration and partnerships: Respondents suggest partnering with other levels of government, nearby groups like Royal Botanical Gardens and McMaster University, working with community organizations for educational opportunities, and supporting Indigenous knowledge keepers in water-related leadership roles.

These themes reflect a community that is deeply engaged in environmental stewardship, advocating for sustainable practices, and seeking collaborative efforts to improve the health of Hamilton Harbour and its natural environment.

11. What actions do you, or would you be willing to take, to help improve and protect Hamilton Harbour, our waterbodies and natural environment? (Select all that apply)



12. Are there any other actions you do, or would be willing to do, to help improve and protect Hamilton Harbour, our waterbodies and natural environment? (Open-ended, optional - themed)

Personal environmental practices: Many respondents are taking or willing to take actions such as avoiding chemicals/pesticides at home, supporting biodiversity in gardens, ensuring proper waste disposal, and intending to switch to electric vehicles.

Community engagement: There is a significant interest in participating in community clean-up days, promoting rain gardens and volunteering with organizations addressing environmental issues.

Green infrastructure improvements: Suggestions include installing rain gardens, permeable driveways, and other forms of green infrastructure on personal properties.

Support for native species: Many are focused on planting native species that require less water and soak up more water, with some even removing lawns altogether for native gardens.

Water and waste management: Actions include reducing water usage, participating in litter clean-up, and advocating for more waste receptacles in public spaces.

Policy and regulation support: Some respondents are willing to support laws that protect shorelines from development and support municipal actions to address watershed issues.

On-site stormwater management: There is a trend towards reducing stormwater runoff from homes, increasing permeable surfaces, and using rain barrels for water collection.

Education and advocacy: Respondents express a desire for more public education on environmental protection and some are involved in activism to prevent urban sprawl.

Other comments: A few responses highlight the need to value Hamilton's natural environment and celebrate its natural heritage. There is also a call for the City to lead by example and hold corporations accountable for their environmental impact.

These themes showcase a community actively engaged in environmental stewardship, advocating for sustainable practices, and seeking support from the City and corporations to improve the health of Hamilton Harbour and its natural environment.

13. Do you have any other concerns, insights, or ideas to share about how we can improve and protect Hamilton Harbour, our waterbodies and natural environment? (Open-ended, optional - themed)

Community involvement: Respondents suggest a willingness to participate in City programs and initiatives such as participating in community clean-up days and deposit programs on aluminum cans and plastic bottles.

Enhancing parks: Respondents suggest that the City add more waste receptacles for cigarette butts and garbage/recycling in public parks, and adding more water fill-up stations in public areas to reduce the need for disposable water bottles.

Green spaces and biodiversity: Respondents advocate for converting parking lots and grassy areas into rain/butterfly/native plant gardens, working with beekeepers to house honeybees on City properties, and establishing more green spaces and community gardens. There is also a desire for more funding and staffing to support these initiatives.

Education and engagement: The importance of educating the public on proper disposal of waste and chemicals is highlighted. Respondents also express the need for programs that involve the public in water stewardship, such as clean-ups and restoration plantings.

Policy: There is a call for swift action on clear policies and bylaws such as mandating green infrastructure for new developments, using construction soil to build restored shorelines and implementing green policies at yacht and rowing clubs.

Accountability and transparency: Concerns are raised about the City's use of collected data and the desire for real results and accountability, especially regarding historical issues like "sewer gate" and the need for checks and balances.

Climate change and resilience: Respondents emphasize the need to keep the climate emergency at the forefront of decision-making and to implement actions that address the effects of climate warming, such as protecting natural land along the lake shore.

Waste management: Suggestions include more garbage and recycling bins and household chemical collection days to ensure proper disposal and reduce littering.

Natural heritage and cultural values: The survey responses show a concern for protecting natural water quality features, prioritizing wetland protection, and recognizing key locations for their natural and cultural heritage values.

Public access and recreation: There is a desire to keep the water's edge accessible to all, with no private development limiting free access to the bay and beaches.

These themes reflect a community that is deeply concerned about the environment and eager to see tangible improvements in the management and protection of Hamilton Harbour and its surrounding natural areas.

Appendix C. Virtual Public Meetings

Virtual Public Meeting 1 – May 2, 2024

Please reference section 3.4 of this report for an overview of the meeting.

This report has been prepared by AECOM to provide the City of Hamilton with a summary of the feedback captured at the virtual public meetings held on Thursday, May 2, 2024.

Questions and Answer Period

The Questions and Answers received during the public meetings are summarized below. Participant questions are noted with a "Q" and comments with a "C". Project Team answers are noted with an "A". Note that this is not a verbatim account but is instead a concise summary of the discussion.

Q1: Tips are good, but there are contradictions because the City's horticulture team doesn't prioritize native plants. City medians are full of non-native, tropical plants.

A1: That's a good point and this is what we're trying to flesh out in public engagement. So, when we state that we are looking to address what the City can do on our lands or operations – this is an excellent example. This is not currently an action, but we can definitely look into it and work with the City's horticultural team.

Q2: Can you clarify what to do with the water from pools? What should be the protocol. There's conflicting information on the website and bylaws.

A2: If it's possible to run a hose into your laundry tub, that is the best way. That way the water can drain down to the sanitary system and be treated at the wastewater treatment plant. If that is not possible, the best thing to do is discharge the water onto your lawn for as much space as possible before it hits the street. If you have chlorinated water, allowing that chlorine to dissipate for a couple of days prior to discharging it is always best practice.

Q3: Have you considered strengthening the protection of existing natural resources in order to help prevent flooding. For example, wetlands not developed.

A3: There are actions that came out of the Natural Asset initiative, Grindstone Creek Project, which was a partnership between the Royal Botanical Gardens, the City of Burlington and the City of Hamilton and it had ten recommendations and many within the care and control of the City are being taken forward.

Q4: Could you confirm how Indigenous people are being consulted?

A4: We have reached out to the Huron-Wendat Nation, the Mississauga of the Credit First Nation, the Six Nations of the Grand River and to the urban Indigenous community via the Circle of Beads for comment on the plan and we are tracking their input.

Q5: Could you talk about the funding for the plan?

A5: Based on public feedback prioritized actions, we will work with our consultant AECOM to help budget an estimated cost, and then we'll work with our City's financial division to create a financial plan that will be presented to Council in the fall of this year. It will have alternatives in it, but then ultimately it will be Council's decision on the plan going forward.

Q6: What is the most problematic issues impacting the harbour right now?

A6: I would say that limiting nutrient additions would be the main priority. Limiting nutrients would support improved oxygen conditions, decreasing algae growth, and better plant and animal health. Reports from the HHRAP note that the majority of the nutrient additions are now coming from non-point sources, such as runoff from roads, fields, lawns, ditches and creeks. If we can limit these nutrient additions, from these non-point sources, then we could slowly see this the health of downstream water bodies improving.

Q7: What is the most problematic issues impacting the harbour right now?

A7: I think right now, we're focusing on the fact that we have a very strong environmentally minded Council. After the unfortunate events that caused a spill from one of our CSO tanks, Council made this a priority and has identified this as a Council term priority. It is great that Council recognized the importance of this work, but direction can certainly change as the priorities of Council change over time. But for now, it is a high priority.

C1: Looking forward to seeing some changes to have more urban tree canopy, green spaces, low impact development and native plants!

Virtual Public Meeting 2 – August 20, 2024

Please reference section 3.4 of this report for an overview of the meeting.

This report has been prepared by AECOM to provide the City of Hamilton with a summary of the feedback captured at the virtual public meetings held on Tuesday August 20, 2024.

Questions and Answer Period

The Questions and Answers received during the public meetings are summarized below. Participant questions are noted with a "Q" and comments with a "C". Project Team answers are noted with an "A" and responses with an "R". Note that this is not a verbatim account but is instead a concise summary of the discussion.

Q1: I would like to understand what provisions are being put in place for (rural) property owners (I'm rural so interested in that specifically) whose properties are lower than City roads and therefore the "runoff" comes from the city to my property rather than vice versa which seems to be what the tax is intended to address.

A1: The stormwater fee and the Plan are two separate programs, but they do intersect. Many of these actions that we're speaking of today, if approved by Council, may be funded from the new stormwater fee, but the Plan looks at issues that may negatively impact the water quality of our watersheds.

Regarding the stormwater fee, the City is working through incentive programs and incentive programs will be ready six to eight months prior to enacting the stormwater fee.

Q2: Given the significant increase in frequency and extent of algal blooms in Hamilton Harbour, while also acknowledging the number of watersheds flowing into the Cootes Paradise marsh, a protected area of ecological significance, is it enough to implement LID measures to address erosion and sediment control when the City still continues to develop in natural spaces?

A2: That's a good point. LIDs are not enough. On their own, they will not do enough, that's why we are implementing a comprehensive plan. So, just because we're going to tackle the highest priority first doesn't mean the other ones get left behind. There are iterations of the plan moving forward. Many of these actions are meant to specifically limit phosphorus and nitrogen entering our water bodies from any area of the City and ultimately getting to Hamilton Harbour or Cootes Paradise. We're also very optimistic with implementing our natural asset initiative so that we can start accounting for natural assets, making more informed financial decisions on it and implementing policies to protect those natural assets.

I would just add to that, Council supported a motion last Friday to have City staff return with a strategy for preventing algae blooms in future years. We're at the very initial stages of that as well. So, we are going to do a deeper dive into the algae bloom issue specifically, but that will be outside of this Plan. The actions within this plan are more of a long-term approach, and reducing the nutrients that are within the City that are going to the watershed.

Q3: Related to that, could you speak to some of the common sources of the phosphorus pollution or the nutrients that we're seeing. What are some of those sources?

A3: Algae growth is a naturally occurring process. However, the increase algae growth that we're seeing this year is likely a combination of issues. The problem has likely been made worse based on the amount of rainfall that we've received in Hamilton. We received roughly the same amount of rainfall in the first half of 2024, then what we received in all of 2020, or in all of 2022. So, with this intense rainfall, we end up getting more combined sewer overflows. In addition, these rainfall events also carry a large sediment plume into the Harbour from poor agricultural practices and from urban runoff. There is also more erosion within our watercourses. The rainfall events also resuspend historical pollution that has occurred within the Harbour. All these sources increase the loadings in the Harbour, and coupled with sunlight, you get this large proliferation of algae.

It should also be noted that temperatures were a lot warmer throughout the winter. We didn't have the snowpack. We didn't have the ice coverage over the Harbor. So, this would all contribute to increased water temperatures and help that growth of algae (algae blooms and blue green algae or specifically, cyanobacteria). So, there's a lot of factors that are causing what we're seeing out there today.

Q4: Big, long studies are great to manage the project over time, however sometimes immediate actions need to be taken. For example, the huge cyanobacteria problem at Bayfront Park and other nearby places in Hamilton Harbour. Please explain how fast you can move to action to prevent or facilitate clean up. How often is Bayfront Park waterfront being monitored? Daily, Weekly, Monthly, longer? Where can citizens of Hamilton successfully contact a group to tell of potential water hazards such as cyanobacteria. City Hall, Safe Water and Spill Control were not able to provide information and/or did not return my call. As global warming is becoming more substantial each year, do you have proactive thinking in place. How can the public better know the of results of water problems such as cyanobacteria super growth in relation to recreational water use, safety to the public health risks? I want to know on a weekly basis if the water is safe for paddling sports, please advise where I can get this information.

A4: I would just say, that's what we're going to. We're going to investigate that with this recent council motion that just passed on Friday. It's something that is in the very initial stages, but we're going to look at short term solutions as well as medium and long-term solutions. We're also going to look at some of our municipal partners to see what they are doing since this is not an issue unique to Hamilton. It's something we're seeing across Canada and across North America.

We've looked at this species of algae, and we have an internal microbiologist. The species of algae that's causing this issue right now is decaying. And that's what's causing the odors and the aesthetic issues that we're having down at the Harbour right now. The problem is that there is no real way to eliminate that algae. We had a bloom like this back in 2021 and the City took action to vacuum up some of the algae that was floating along the surface in the shoreline. We learned a few things from that exercise, mostly that it was probably the worst thing that we could have done. What happens with these algae is that as you touch it (like with a vacuum truck or as boats drive through it) it starts to regenerate itself. As it's fragmented it proliferates even more which cause more problems. In 2021, about 72 hours after most of the material was removed, it had returned. So, it really is not a sustainable option for disposal. And speaking of disposal, the only option that we had then and still have now, was to take that slurry that was vacuumed out of the harbour and dispose of it down into our sanitary sewer system, so that it would be essentially dealt with at our sewage treatment plant. This caused a lot of damage to our equipment; very expensive and labour-intensive maintenance issues that our staff had to go through and repair. Also, if the algae passes through our sewage treatment plant (which is not designed to treat algae) it could just move the problem down to the East side, so it would end up coming out of the Redhill Creek outfall, where we're already seeing some signs of algae growing. It would just exacerbate the problem and move it down to the other end of the city. At this point in time there's really nothing that can be done. We were hoping that the rain over the weekend will help to push some of the materials off the shoreline. Since we're not able to deal with the algae as it is right now, we're looking more at proactive measures for next year, so that we can prevent it from occurring in the future.

Q5: Is there anywhere that the public can go to check the safety level of the water on a regular basis?

A5: Yes, there is a public health water safety line. There's also discussion of a website as well.

Q6: Have you considered regenerative development and design principles, such as those proposed by the Regensis group?

A6: Thanks for the question, I'm not familiar with that. We did not consider that, but this plan is totally adaptive, so as new things come in, we can take them in. I will investigate this and see if it can be implemented. Note that this plan isn't just this group here, it will be a bigger effort through all departments. I don't know enough about it, but my guess is I'll have to include some planning and economic development staff in the conversation to see if it has been investigated before, and if not, we would start doing that.

Q7: The Hamilton Harbour Area of Concern is clearly not complete or can be considered cleaned up, so can we be sure that the area of concern status will remain open. So, sources of funding and other resources from both the provincial and federal governments continues to flow clearly. The municipality cannot do this on their own.

A7: Thanks for the question. You are absolutely correct. We cannot do this on our own. The HHRAP has a team called BAIT, the Bay Area Implementation Team, that is made up of staff from Hamilton and Burlington, industry staff, Conservation Authorities, the RBG and representatives from the Ontario and Canadian governments. Also, there is a process that each AOC must follow. They have 14 beneficial use impairments, and all 14 have to be addressed before they're allowed to delist. When they address each beneficial use impairment there's a report that's made public for comment to show how it's been fixed. So

what was it before, and what is it now, based on science. It's all reported, and public has their say, and then, based on that, the status could change. And they have to do that 14 times before it's an area in recovery. So yes, absolutely it will stay open. And we will absolutely look forward to assistance from higher levels of government in implementing some of our actions, and even supporting our partners in implementing their plans.

Q8: I noticed that none of the school boards or independent schools are listed as partners. They are some of the largest property management organizations and connect with all of our children for potential learning and modeling of green infrastructure. School grounds are perfect learning landscapes for demonstrating green infrastructure.

A8: Great question and we'll definitely take this back. We partnered with, or mainly with, Green Venture and the Bay Area Restoration Council (BARC). They do a lot of in classroom work or have students that they teach as well. We also have our own outreach program here in Hamilton Water that targets students as well, especially through our water festival that happens every year with great engagement from all of the schools. So, it's definitely something we can maybe incorporate into that. Since that's already an existing program with all schools.

Q9: So many homeowners are covering their lawns with artificial turf or paving their front yards. Is the City doing anything to stop this from happening?

A9: I'm not sure if there's a bylaw in effect that's not being enforced or if we need to create a new bylaw or more stormwater education, to at least inform those homeowners of what they're doing and the impacts to the surrounding area, especially their neighbours or the watersheds that they're in.

We would certainly take that back to our site plan folks and planning just to understand what their role is, if any, with those types of applications, whether it be paving over front lawns or things like that. I don't believe that there is a bylaw in place for artificial turf. But we could look into this.

Q10: I'm wondering if someone could speak to the prioritization of actions again. How is runoff in the rural area is a higher priority than salt management?

A10: We would need to look at the evaluation, but my guess on that one is probably the fact that there is already a salt management program so it probably didn't make the top of the list only because the program already exists. And really, what we're looking to do with that program under this action plan is to enhance it, and to apply the watershed lens even more so than it already was when the program was approved a few years ago.

And I would just add that it in terms of scoring, it could be very, very close. I haven't looked at the actual specific scoring between the two of them. We're going to create a resources requirement for each of the various actions. So, Council could approve more or fewer actions. And then it's going to be an iterative and adaptive management approach. So, if it's first or second, it doesn't really matter. In this case, as both of those will likely be moving forward as long as we have the resources and we get Council approval.

Q11: The Council of Canadians has accredited many Canadian municipalities as blue communities. Hamilton did not qualify due to a public private partnership element to wastewater. Is there still a public private partnership element to the water wastewater system in Hamilton, and can Hamilton be recognized as a blue community now?

A11: I'm not familiar with the blue community program. But I will look into it. The only aspect that I'm aware of that is a public private partnership (PPP) is our biosolids facility at our wastewater treatment

plant – and that still is PPP program. I will definitely look into the program if that still pushes us out of being qualified or not.

Q12: With respect to pending action number four, phosphorus entering Desjardins Canal, any and all increase in urban expansion and Waterdown will also introduce phosphorus into Cootes since the Waterdown treatment plant was dismantled. Given the situation, how do you propose to address the phosphorus problem short of a complete upgrade to the Dundas treatment plant?

A12: There's a two-part answer here. For those unaware, the Waterdown plant was decommissioned. Waterdown's wastewater goes to a diversion tank just outside of the Dundas wastewater treatment plant. If the plant can take it, it does, if not, it is pumped to Woodward. So, Waterdown isn't solely treated by Dundas alone. It's only when Dundas can take it that it does otherwise all of it is pumped to Woodward. Your question is timely because we are actually looking to upgrade the Dundas wastewater treatment. We are in our initial stages, so stay tuned for that.

There's a report going to Public Works Committee on that. I believe it's September 30th – I could be off a little bit on that date. But it's at the end of September.

I should just add too in terms of Desjardins Canal. Specifically, we are looking at a couple of different projects to try to limit the amount of phosphorus that's moving into Cootes from Desjardins Canal. We've piloted a capping system so potentially like putting a chemical down to help fix phosphorus within the canal. We've also looked at potential other ideas like dredging or putting a sediment cap on top of the canal. So, there are things that we're looking into. And we're looking into what thing would be most effective at ensuring that that canal doesn't increase phosphorus loadings into Cootes Paradise.

And I'll just conclude that that the work mentioned and the plant are both in coordination with our partners at the RBG.

Q13: Most, if not all, of these actions, have been identified many times over in the past decades within the Hamilton Harbour Remedial Action plan which began in 1986. So, one wonders why this plan is being done yet again, and why the well understood issues have not been fixed already.

A13: That's a great question. In response to the Chedoke Creek incident, one of the Council directions was for the City to recommit to the remedial action plan process. Staff had not "uncommitted", but there wasn't a one-window approach or one single touchpoint for the HHRAP at the City. There were several City partners, City departments that were involved in various actions through the years. No one was monitoring or tracking from a holistic point of view where those actions were in the process, and due to that, a lot of things fell through the cracks. But there has been a lot of really great work done over the years. A lot of investments by City Council and past City Councils. Over 500 million dollars has been invested in the past two to three decades on improving water quality, including wastewater treatment system upgrades, our real time control program, all of our CSO tanks – all of these are under the Clean Harbour Program. From a planning perspective this team, formed in 2021, was created as the one touch point that could keep a handle on these actions and ensure that they are completed. The Plan has also become a Council term of priority so it requires more frequent updates to Council. So, we will make sure that things are done that were developed but not fully actioned in the past.

Q14: How will the City's acknowledgement of a climate emergency be reflected in the plan? Is there a sense of urgency to mandate that all new developments have a net zero stormwater and sanitary water discharge as an example.

A14: We link our plan to both the Biodiversity Action Plan and the Climate Action Strategy through the scoring. One of the criteria was: Does it support the Biodiversity and Climate Action strategies? The way I see it in my brain is as a Venn diagram. You have your three bubbles, all three plans, and then there's

an overlapping piece and in that overlapping piece there's many actions. When it comes to mandates on all new developments, that's a policy question. But I can definitely ask our team in planning and economic development – what policies are in place for developers to follow and how those can be enhanced? I believe that's even in our Action Plan, I think, in the pending group of actions. I can get back to the commentor on that.

Q15: Has there been consideration of farm tile drain systems? So, these dry out fields in the spring, the water and nutrients are wasted to community drains, and the groundwater is not replenished. Years ago Agriculture Canada showed the drains could be caught in ponds and pumped back into the fields for higher corn yields. These may be a hidden problem.

A15: I don't think we've tackled farm tile drain systems within our action plan. I believe that they may help the environment by creating and releasing clean water rather than allowing surface water that's picked up lots of soil and runs off into the local water course. I'm not an expert on this but we can look into this further and work with our partners at the four conservation authorities.

Q16: Bubble machines would help with stagnant water at the foot west of Bayfront Park, and the question would be, why can we not find a secure way to add them?

A16: The motion that we received from City Council on Friday is to look at preventative methods to ensure that these blooms don't get to this point. Unfortunately, because of the current bloom and the sort of characteristics that I spoke to earlier about this species of algae, if we were to install a bubbler now, it would probably exacerbate the situation because it would just break up the algae rather than eliminate it completely. So, bubblers are great when you have them installed ahead of time before these blooms get to this point. But it also doesn't keep the cyanobacteria from happening. There are a number of private bubblers that are installed in some of the marinas down by the harbour front. You'll see that there isn't a lot of that sort of floating mass in those areas, but the water is still bright green, so the bacteria is still there. The water is still not safe to enter and really, the material is getting pushed into public use areas. Bubblers do work in some instances, if it's used as a preventative tool – in this particular case it would not work.

Q17: Could there be a webcam linked to the monitoring team. So that it can easily be, or more easily be dealt with earlier before it gets too big?

A17: Currently there is no monitoring team. The motion from last Friday was giving the Department of Public Works the direction to create a monitoring team where we can resource these actions appropriately. So we can plan for them and do research and ensure that we're doing the right things, and not just reacting to something and potentially causing more damage than good. That's something that's going to hopefully help us for the future. But it doesn't necessarily help us for right now.

Q18: To what extent might permeable surfaces on City property and private property reduce the overflow of sewage and/or groundwater into Cootes Paradise and Hamilton Harbour, and help reduce the need to expand holding tanks or the capacity of sewers to manage huge rainfall.

A18: I'm not sure about the extent of the impact without doing the engineering behind and finding out the square footage of what is being converted versus the impact on the combined sewer catchment area. But anything and everything helps. So, your rain gardens and disconnecting downspouts, like the Project Team mentioned – capturing it where it falls, and infiltrating into the ground. Which is what the permeable surfaces would do.

We're looking into this more with our friends in the climate office and reviewing what other municipalities have done. For example, the City of Montréal has "sponge parks" that have seemingly been very effective in managing large storms. These types of solutions are always top of mind for us.

Q19: How can people find out about the specific details of the various pending actions. So, for example, how are these actions being implemented, and how is their effectiveness being assessed?

A19: We have two kinds of documents. One is the plan itself, which is online for review in draft form with the pending and funded actions all listed. We will also have the recommendation report which is what actions we'll recommend to take in the first iteration of the plan. It will also include alternatives for Council's consideration, so they will determine what we have resources for. So, all of that will be in the report and it will include a section on monitoring, but it may not be as detailed as the commentor is suggesting. Just a general comment on monitoring and how we can monitor certain projects. In some cases, we can't effectively monitor them. But in other cases, by monitoring the action, the action actually becomes cost prohibitive. So it makes sense to just do the action. Some are just easy. Let's do it. It makes sense. It's known throughout the industry as a successful thing, and we just do it. And then others do come with a heavier price tag or resource requirement, and those would have monitoring programs behind them so that we can adjust as we move forward to see how effective those actions are. But, I can't give you specifics here. We don't have those yet. Once Council approves our plan, everything will be posted online, and you'll be able to see the first phase of that plan. And then, as each action is tackled, we will be reporting back to Council on an annual basis.

I just wanted to add that some of the solutions cannot be monitored, like the floating treatment wetlands. There's one floating treatment wetland at the mouth of Chedoke Creek in Cootes Paradise – we know that it's helpful. We know that it's impactful. But we don't have a way to measure that.

C20: Just a big thanks for the diligent and well-articulated answers!

Appendix D. Pop-Up Informational Booth Content

Includes two 2' x 3' panels and one double sided 4" x 6" postcard.

Panels:

City of Hamilton Watershed Action Plan

The City of Hamilton is developing a Watershed Action Plan to support Hamilton Harbour and protect our watersheds.

Protecting our watersheds

A watershed is an area of land that drains rainfall and snowmelt into streams and rivers which then flows into a larger body of water such as Lake Ontario.



Why should we protect our watersheds?

- Healthy watersheds provide opportunities for recreation, such as kayaking, canoeing, boating, and fishing.
- Healthy watersheds create ideal conditions for thriving wetlands, rivers and lakes.
- Healthy watersheds contribute to the local economy by boosting tourism and beautifying the area.




Supporting Hamilton Harbour

Hamilton Harbour was designated as an Area of Concern in 1987 due to serious water quality and ecosystem damage caused by:

- Combined sewer overflows
- Heavy industry
- International shipping
- Stormwater runoff from homes, farms and businesses carrying contaminants
- Dumping chemicals, paints and other harmful materials into the storm sewer system

Why do we need this Plan?

‘Delisting’ Hamilton Harbour as an Area of Concern will represent an important milestone in ecosystem protection and rehabilitation.

City of Hamilton Watershed Action Plan

Taking action to protect our watersheds and support Hamilton Harbour

What type of actions is the City considering?

Water Quality Actions

- Improve management of road salt
- Enhanced street sweeping and catch basin cleaning
- Complete restoration at erosion sites

Water Quantity Actions

- Increase urban canopy cover
- Incentivize Low Impact Development
- Improve irrigation control on sports fields

Natural Habitat Actions

- Convert Bayfront Park beach into a harbour front wetland
- Daylight creeks
- Review tree removal policies

Outreach and Education

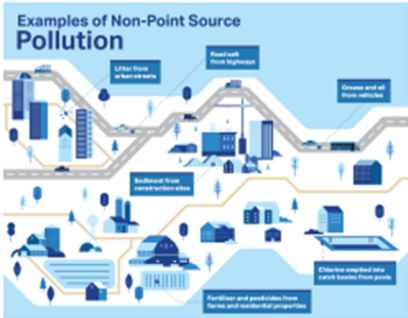
- Provide information on stormwater management
- Create Low Impact Development training programs

What can the public do to help?

- Avoid single-use plastics
- Use environmentally friendly alternatives to salt
- Reduce car washing at-home
- Only snow and rain should enter catch basins
- Pick up pet waste and throw it in the garbage
- Plant native trees and shrubs
- Bring household chemicals to a Community Recycling Centre
- Improve stormwater management at home by reducing runoff from your property
- Grow your lawn longer and limit fertilizer and pesticide use
- Never flush garbage down the toilet and always properly secure on collection day
- Fill out the Watershed Action Plan survey!



Examples of Non-Point Source Pollution



Have your say!

Visit engage.hamilton.ca/watershedactionplan by scanning the QR code to learn more and fill out our survey.



Postcard:

**City of Hamilton
Watershed
Action Plan**

The City of Hamilton is developing a Watershed Action Plan as part of the Clean Harbour Program to guide decision-making to protect, restore and enhance Hamilton Harbour and our watersheds to support healthy and resilient communities.

Your input is essential for understanding community perspectives and helping us prioritize different actions that aim to protect our waterbodies and the natural environment.

Hamilton **HAMILTON CLEAN HARBOUR PROGRAM**



Scan the code above to fill out our survey!

How to help the Harbour and our watersheds

-  Avoid single-use plastics
-  Use environmentally friendly alternatives to salt
-  Reduce car washing at-home
-  Only snow and rain should enter catch basins
-  Pick up pet waste and throw it in the garbage
-  Plant native trees and shrubs
-  Bring household chemicals to a Community Recycling Centre
-  Improve stormwater management at home by reducing runoff from your property
-  Grow your lawn longer and limit fertilizer and pesticide use
-  Never flush garbage down the toilet and always properly secure on collection day
-  Fill out the Watershed Action Plan survey!

Learn more at:
hamilton.ca/watershedactionplan | engage.hamilton.ca/watershedactionplan

