

Authority: Item 2, Planning Committee
Report 13-004
(PED13041/PW11056(d))
CM: March 19, 2013

Bill No. 080

CITY OF HAMILTON

BY-LAW NO. 13-

**To Adopt the
Water and Wastewater Infrastructure Support Community Improvement Plan**

WHEREAS By-law No. 13-079, passed on the 27th day of March 2013, designated the Water and Wastewater Infrastructure Support Community Improvement Project Area;

AND WHEREAS Section 28 of the Planning Act states that where a By-law has been passed to designate a community improvement project area, the Council may provide for the preparation of a plan suitable for adoption as a Community Improvement Plan for the community improvement project area;

AND WHEREAS under the Planning Act (Section 28) "community improvement" means "the planning or replanning, design or redesign, resubdivision, clearance, development or redevelopment, reconstruction and rehabilitation, improvement or energy efficiency, or any of them, of a community improvement project area, and the provision of such residential, commercial, industrial, public, recreational, institutional, religious, charitable or other uses, buildings, structures, works, improvements or facilities, or spaces therefore, as may be appropriate or necessary";

AND WHEREAS the Council of the City of Hamilton considers it appropriate to adopt a Community Improvement Plan for the Water and Wastewater Infrastructure Support Community Improvement Project Area, in accordance with the said Act, for the purposes of the community improvement of the designated Water and Wastewater Infrastructure Support Community Improvement Project Area, through various municipal initiatives, as set out in the Community Improvement Plan;

AND WHEREAS Council, by its Planning Committee, held a Public Meeting on March 19, 2013 to discuss and receive public input regarding adoption of the Water and Wastewater Infrastructure Support Community Improvement Plan, and has taken other required steps, prior to the enactment of this By-law, to adopt a Community Improvement Plan for the Water and Wastewater Infrastructure Support Community Improvement Project Area, as required by the Planning Act;

AND WHEREAS the City has prepared a plan entitled "Water and Wastewater Infrastructure Support Community Improvement Plan" attached hereto as Schedule 'A' and forming part of this By-law;

NOW THEREFORE the Council of the City of Hamilton enacts as follows:

1. That the Water and Wastewater Infrastructure Support Community Improvement Plan, annexed hereto as Schedule 'A' and forming part of this By-law, is hereby adopted as the Water and Wastewater Infrastructure Support Community Improvement Plan for the Water and Wastewater Infrastructure Support Project Area designated by By-law No. 13-079.
2. That this By-law comes into force on the day it is passed.

PASSED this 27th day of March, 2013

R. Bratina
Mayor

R. Caterini
City Clerk

**Schedule 'A' to BY-LAW NO. 13-, To Adopt the Water and Wastewater
Infrastructure Support Community Improvement Plan**

**Water and Wastewater Infrastructure Support
Community Improvement Plan**

March, 2013

City of Hamilton

The Water and Wastewater Infrastructure Support Community Improvement Plan is organized into the following sections:

1. Introduction
2. Purpose
3. Legislative Authority
4. Previous Plans, Programs and Initiatives
5. Supporting Policy and Strategies
6. Community Improvement Project Areas
7. Goals and Objectives
8. Programs and Initiatives
9. Monitoring
10. Approval and Amendment Process
11. List of Appendices

1. INTRODUCTION

The purpose of this Community Improvement Plan (CIP) is to promote Hamilton's adaptation to climate change and protection of the health of Hamilton's citizens through incentive programs for residential plumbing improvements that can aid in the prevention of sewer back-up into basements and the release of untreated effluent in extreme weather events. These programs promote actions by residential property owners that either directly prevent sewer back-ups in their residence or reduce the load on the larger sewer system.

1.1 Community Improvement Plan

A Community Improvement Plan is a plan, adopted under the Planning Act, that authorizes municipalities to provide grants or loans to commercial enterprises for a defined variety of rejuvenation/rehabilitation purposes, without contravening the Municipal Act, 2001 prohibition against bonusing.

The purpose of this Community Improvement Plan (CIP) is to promote Hamilton's adaptation to climate change and protection of the health of Hamilton's citizens through incentive programs for specific modifications to private plumbing systems that can aid in the prevention of sewer back-up into basements and release of untreated effluent in extreme weather events. This program promotes actions by residential property owners that either directly prevent sewer back-ups into their residence or reduce the load on the larger sewer system.

The Residential Protective Plumbing Program (3P), initially adopted by Council on September 30, 2009, (Report PW09082) has, to date, been offered only to owners of owner-occupied residential properties. The program has been successful, and on June 27, 2012, Council directed staff to draft a Community Improvement Plan to enable extension of the program to owners of residential rental properties. This resulting Water

and Wastewater Infrastructure Support Community Improvement Plan extends the 3P Program to owners of residential rental properties. This CIP provides a framework for other related or similar programs to be adopted into it in the future with a minimum of staff resources. A Public Meeting and Council adoption is required to add programs.

1.2 Community Improvement Project Area

The Water and Wastewater Infrastructure Support Community Improvement Plan (the CIP) applies to all lands within the Urban Area of the City of Hamilton. Including all Urban lands within the CIP Project Area provides flexibility for adding other programs if Council chooses to do so in the future, but does not increase the financial commitment in any way. Grants and loans are subject to funding, as determined by Council, and the program may be discontinued at any time without notice. Eligibility criteria, adopted in Appendix '1' to this CIP, limits eligibility of the program to owners of residential properties. The project area is designated by By-law 13-079, approved by Council on March 27, 2013.

1.3 Climate Change

Climate change refers to the long-term change in weather patterns resulting from the release of greenhouse gases. These emissions alter the chemical composition of the atmosphere, resulting in intensification of the earth's natural greenhouse effect. Climate change is destabilizing weather patterns, increasing the frequency and intensity of extreme weather events like heat waves, storms, droughts, floods, blackouts, forest fires, and other weather-related disasters.

The Government of Canada¹ reports that Canadians can expect to see many climate-related changes in their lifetime, including longer periods of drought punctuated by heavier rainstorms, and more extreme weather events such as storms and floods. These more frequent and extreme heavy rainstorms may cause localized flooding and overwhelm current sewage treatment facilities with increased volumes of storm water.

Since 2004, the City of Hamilton has been subject to increasingly frequent and violent severe storms, notably July 26, 2009, August 29, 2009, and September 28, 2010. On July 26, 2009, 109 millimeters of rain fell in two hours, more than four times the historical rainfall of 25 millimeters or less over a three hour period for 95 percent of storm events.² The July 26, 2009, storm was "worse than a 100-year storm and one of

¹ Government of Canada: Canada's Action on Climate Change, www.climatechange.gc.ca, accessed August 2012.

² Environment Canada. (2009). *Canada's Top Ten Weather Stories for 2009*. (online) Available at: <http://www.ec.gc.ca/meteo-weather/default.asp?lang=En&n=DDD5D4BA-1> [Accessed: August 28, 2012]

the most intense, short-duration rainfalls on record in Canada”.³ It was also particularly damaging because the ground was already saturated from a storm two days prior. These extreme storms overloaded segments of the wastewater collection system resulting in sanitary back-ups and basement flooding in many areas of the City, as well as the release of untreated sewage. The majority of the damage from these storms has been attributed to backed up sewers.

According to the Independent Community Panel (2006)⁴, Hamilton is not alone. Many other municipalities are faced with increasingly frequent and severe urban flooding and multiple basement sewer back-ups.

1.4 Causes of Sewer Back-up

Sewer back-ups can be caused by either localized blockages or insufficient capacity for the broader system to handle an extreme rainfall.

Capacity issues in sanitary systems are primarily caused by older combined sanitary and storm water systems. On a system-wide scale, during exceptionally heavy rains the sewer lines and tanks can fill up with water faster than they drain, leading to a sewage back-up as the wastewater flows back through residential floor drains. Overflowing untreated wastewater can also flow directly to the receiving water body, bypassing the treatment facilities entirely.

The City of Hamilton wastewater system consists of combined sanitary/stormwater service areas and separated sanitary service areas. The combined system is generally located in the Downtown Core and northern sections of the Hamilton Mountain, while the separated systems lie at the outer limits of the network.

1.5 Potential Health Impacts

Sewage back-up into the basement of a home is not only an extremely unpleasant, time consuming, usually expensive, and stressful experience for the residents, but can also present a serious health hazard. Sewage can contain everything from soap to solid waste, human excrement, industrial effluent, debris, bacteria, viruses, and parasites. Disease from sewage in a home can be transmitted in many ways: hand-to-mouth contact, skin contact, and inhalation. Diseases, which can be serious, can include gastroenteritis, hepatitis, asthma, Weil's Disease, allergic alveolitis, and infection of skin or eyes.

³ Ibid

⁴ Independent Community Panel Report to the City of Hamilton, September 2006 (online) Available at <http://www.hamilton.ca/NR/rdonlyres/BB453B35-845D-427A-9DA6-F9A7C50A5FFF/0/PanelReportFinal2originalreport.pdf> [Accessed: August 28, 2012]

Sewage can also make a contaminated house unfit for living, and can cause on-going problems if not cleaned promptly and properly. When building materials and furniture become wet with flood or sewage waters, and are not discarded or properly cleaned and dried, mold growth can be expected. Mold growth poses additional health risks such as respiratory disease and allergic reactions. All contaminated porous materials, including building materials, generally speaking, must be discarded and replaced.

1.6 Quality of Living Environments

On a broader scale, by preventing sewage back-ups, and rehabilitating or upgrading private plumbing infrastructure, these programs improve the quality of life for affected residents.

1.7 Economic Impacts

Sewage back-ups also cause substantial economic impacts on homeowners, tenants, insurance companies, and the City. The infamous July 2009 storms resulted in floods of over 7,000 homes, and the resulting uptake of the Residential Municipal Disaster Relief Assistance Program, which provides Compassionate Grants to homeowners who have experienced a sewer back-up, totaled \$3 million. This figure represents a small proportion of the overall costs of the storms.

1.8 City Initiatives to Date

A proactive approach to minimize the impacts of severe weather events is necessary. Initiatives by staff to address potential flooding and sewer back-up issues have been addressed in multiple Reports.

Within the combined sewer system, there are numerous wet weather control devices including weirs, gates, and combined sewer overflows and tanks. Since the late 1990's, the City has systematically constructed combined sewer overflow storage tanks to collect wastewater during heavy rainfall. Excess flows enter the combined sewer overflow tanks, reducing the immediate flow into the system, and preventing overflow events. The tanks are then drained and treated in drier times. Where there are no tanks, excess flow bypasses the treatment system at combined sewer overflow structures. The weirs and gates are designed to capture as much wet weather flow as possible within the system or divert overflow to prevent system surcharging and basement flooding.

More infrastructure improvements to alleviate flooding are planned (Water Wastewater Master Plan). The City currently does not have a sewer separation plan in place, but separation of existing combined sewers is considered as major road works are planned, where there is a viable storm sewer outlet location. Despite accelerated construction schedules, these works will take time, and once constructed, cannot perform beyond the intended design standard.

The challenge is that storms are becoming more severe and more frequent. As the Independent Community Panel Report (2006) and the more recent 2009 update to this Report recommend, due to the increasing impacts of climate change, it is prudent for the City of Hamilton to plan infrastructure and programs for a likely increase in frequency of severe storm events. However, the panel also:

“concluded that severe storms experienced by the City would exceed the most stringent standards that can be reasonably implemented in consideration of practical and financial parameters. ... Severe storms can frequently exceed design standards and cannot be addressed with capacity improvements alone.”

Measures complementary to the existing and planned capital works are needed. Potential complementary solutions include lot-level works, such as:

- Disconnection of downspouts;
- Installation of backflow valves; and,
- Installation of a new sump pit and pump.

Disconnection of downspouts from the sewer system can delay storm water flow into the system, thus reducing peak flow. Most storm water will continue to flow into the system, but the delay can reduce the peak flow. **Backflow valves**, installed in individual dwellings, can prevent sewage from backing up into a basement when the system overflows. Backflow valves for higher capacity installations, such as multiple dwellings, are not yet approved in the Building Code, but are expected to be available in future. Installation of a new **sump pit and pump**, when installed in conjunction with an approved backwater valve, can reduce basement flooding.

The Residential Protective Plumbing Program (3P) provides support for CCTV inspection of the new backflow valves, as well as new sump pit and pumps.

2. PURPOSE

The Water and Wastewater Infrastructure Support Community Improvement Plan (CIP) provides the basis for community improvement programs and initiatives within the designated Water and Wastewater Infrastructure Support Community Improvement Project Area in the City of Hamilton. The purpose of this Community Improvement Plan (CIP) is to promote Hamilton’s adaptation to climate change, and protection of the health of Hamilton’s citizens through incentive programs for specific modifications to private plumbing systems that can aid in the prevention of sewer back-up into basements and release of untreated effluent in extreme weather events.

More specifically, the purpose of the Water and Wastewater Infrastructure Support Community Improvement Plan is to:

- Provide the framework for City programs and initiatives within the Water and Wastewater Infrastructure Support Community Improvement Project Area, in a manner that meets the legislative requirements of the Planning Act's Community Improvement provisions, including those that permit a municipality to provide financial assistance to private enterprise (see Section 3 of this CIP); and,
- Outline a financial incentive program designed to encourage and stimulate upgrades to residential protective plumbing.

The goals of the programs and initiatives detailed in Section 8 are to encourage climate change adaptation and plumbing upgrading and rehabilitation activities that complement and implement the policies of related plans and strategies. These plans and strategies include the Provincial Policy Statement, VISION 2020, the Region of Hamilton-Wentworth Official Plan, the Urban Hamilton Official Plan, the Economic Development Strategy, and the Corporate Strategic Plan. These documents are reviewed in Section 5 to provide rationale for the Community Improvement Project Area described in Section 6.

Monitoring the Plan's implementation is undertaken through the City's performance measurement reporting, as noted in Section 9. This CIP may be amended from time-to-time in accordance with Section 10.

3. LEGISLATIVE AUTHORITY

The legislative framework for Community Improvement Planning in Ontario is established in the Planning Act and the Municipal Act, 2001. This legislation governs how municipalities prepare Community Improvement Plans and programs, providing financial incentives that would otherwise be prohibited.

3.1 Municipal Act, 2001

Section 106(1) of the Municipal Act, 2001 states: "*a municipality shall not assist directly or indirectly any manufacturing business or other industrial or commercial enterprise through the granting of bonuses for that purpose.*" Providing financial or other assistance, often referred to as bonusing, is normally prohibited, including the following actions:

- Giving or lending money or municipal property;
- Guaranteeing borrowing;
- Leasing or selling municipal property below fair market value; or,
- Giving a total or partial exemption from any levy, charge or fee.

Community improvement initiatives are an exception to the rule against bonusing. This exception is found in Section 106(3) of the Municipal Act, 2001 for municipalities exercising powers under Section 28(6), (7) or (7.2) of the Planning Act, and under Section 365.1 of the Municipal Act, 2001. This exception provides the legislative basis for the financial incentive programs described in Section 8.1 of this Plan.

3.2 Planning Act

The Planning Act (Section 28) allows municipalities that have provisions in their Official Plan relating to community improvement to designate, by By-law, a community improvement project area. Under Section 28(1) of the Planning Act:

- A community improvement project area is defined as "*a municipality or an area within a municipality, the community improvement of which, in the opinion of the Council, is desirable because of age, dilapidation, overcrowding, faulty arrangement, unsuitability of buildings, or for any other environmental, social, or community economic development reason;*"
- Community improvement is defined as "*the planning or replanning, design or redesign, resubdivision, clearance, development or redevelopment, construction, reconstruction and rehabilitation, improvement or energy efficiency, or any of them, of a community improvement project area, and the provision of such residential, commercial, industrial, public, recreational, institutional, religious, charitable or other uses, buildings, structures, works, improvements or facilities, or spaces therefore, as may be appropriate or necessary.*"

A municipality may engage in the following actions within a designated community improvement project area:

- *Acquire, hold, clear, grade, or otherwise prepare land for community improvement (Section 28(3));*
- *Prepare a Community Improvement Plan for the project area (Section 28(4));*
- *Construct, repair, rehabilitate, or improve buildings on land acquired or held by it in conformity with the approved Community Improvement Plan (Section 28(6));*
- *Sell, lease, or otherwise dispose of any land and buildings acquired or held by it in conformity with the approved Community Improvement Plan (Section 28(6)); and,*
- *Make grants or loans, in conformity with the approved Community Improvement Plan, to the registered owners, assessed owners, and tenants of lands and buildings, and to any person to whom such an owner or tenant has assigned the*

right to receive a grant or loan, to pay for the whole or part of the eligible costs of the Community Improvement Plan (Section 28(7)).

Section 28(7.1) defines eligible costs as "*costs related to environmental site assessment, environmental remediation, development, redevelopment, construction and reconstruction of lands and buildings for rehabilitation purposes, or for the provision of energy efficient uses, buildings, structures, works, improvements, or facilities.*"

The maximum amount of financial assistance a municipality may offer is limited by Section 28(7.3) of the Planning Act. The total of the grants, loans and tax assistance provided to particular lands and buildings under the Planning Act (Section 28) and the Municipal Act, 2001 (Section 365.1) shall not exceed the eligible cost of the Community Improvement Plan with respect to those lands and buildings. The financial incentive programs provided in Section 8.1 of this Plan, therefore, contain eligibility criteria and financial assistance maximum limits to ensure assistance does not exceed eligible costs.

3.3 Municipal Official Plan Authorization

Municipal authority is granted by the community improvement policies in the City of Hamilton's Official Plans, both the Region of Hamilton-Wentworth Official Plan, currently in effect, and the Urban Hamilton Official Plan, currently under appeal to the Ontario Municipal Board. As noted in Section 3.1 of this CIP, municipalities must have provisions in their Official Plans regarding Community Improvement Plans to designate a community improvement project area and prepare a Community Improvement Plan.

The Region of Hamilton-Wentworth Official Plan Section 6A states that all or part of the City's Urban area may be designated as a community improvement project area to address one or more of the following deficits (6A.2):

- "a) Building stock or property in need of rehabilitation;*
- d) Deteriorated or insufficient physical infrastructure such as, but not limited to, sanitary and storm sewers and water mains, public transit, roads/streets, curbs, sidewalks, street lighting, and utilities;*
- g) Known or perceived environmental contamination;*
- l) Shortage of land to accommodate building expansion and/or parking and loading facilities;*
- m) Other barriers to the improvement or redevelopment of underutilized land or buildings; and,*

n) Any other environmental or community economic development reasons for designation.”

The Region of Hamilton-Wentworth Official Plan, Section 6A, states that community improvement shall be accomplished through:

- “1) The upgrading and ongoing maintenance of communities or areas characterized by obsolete buildings, and/or conflicting land uses and/or inadequate physical infrastructure and community services; and,*
- 2) The establishment of policies and programs to address identified economic, land development and housing supply issues or needs throughout the Urban Area.”*

The Region of Hamilton-Wentworth Official Plan, Section 6A.3, also gives the City authority for the following actions that may be undertaken through the preparation and implementation of Community Improvement Plans:

- “a) Allocation of public funds such as grants, loans, or other financial instruments for the physical rehabilitation, redevelopment, or improvement of land and buildings;*
- b) Municipal acquisition of land or buildings and subsequent clearance, rehabilitation, redevelopment, or resale of these properties or other preparation of land or buildings for community improvement;*
- f) Other municipal actions, programs, or investments for the purpose of strengthening and enhancing neighbourhood stability, stimulating production of a variety of housing types, facilitating local economic growth, improving social or environmental conditions, or promoting cultural development.”*

All developments and works participating in programs and initiatives contained within Community Improvement Plans must conform to the Official Plan and all relevant codes and regulations.

4. PREVIOUS PLANS, PROGRAMS, AND INITIATIVES

The Water and Wastewater Infrastructure Support Community Improvement Plan extends an existing program, the Residential Protective Plumbing Program (3P), which was initially adopted by Council on September 30, 2009 Council (Report PW09082) and has been reviewed and revised several times since, most recently February 13, 2013 (Report PW11056(c)).

5. SUPPORTING POLICY AND STRATEGY

The documents reviewed in this Section provide the direction and policy basis for this Plan's goals, objectives (see Section 7) and programs (see Section 8).

5.1 Provincial Policy Statement

The Provincial Policy Statement (2005) sets the policy foundation for regulating the development and use of land in Ontario. Overall the Provincial Policy Statement promotes “strong, liveable, and healthy communities, protect the environment and public health and safety, and facilitate economic growth”. It also promotes efficient use of infrastructure. While not directly a planning matter, the Water and Wastewater Infrastructure Support Community Improvement Plan will be adopted under the Planning Act and must, therefore, be consistent with the Provincial Policy Statement.

The Water and Wastewater Infrastructure Support Community Improvement Plan is consistent with the following Provincial Policy Statement policies:

- The goal of “1.1.1 c) *avoiding development and land use patterns which may cause environmental or public health and safety concerns*”;
- “1.6.4.1 *Planning for sewage and water services shall: b) ensure that these systems are provided in a manner that: 3. protects human health and the natural environment.*”

The Provincial Policy Statement supports infrastructure planning, particularly sewage and water services, for health, safety, and environmental reasons. This CIP promotes improvements of infrastructure planning, promotes efficient use of infrastructure, reduces the potential for environmental contamination, and promotes improved health and safety. Installation of backflow valves and sump pumps promotes health and safety.

5.2 The Growth Plan for the Greater Golden Horseshoe (2006)

The Growth Plan for the Greater Golden Horseshoe (2006) provides Provincial growth management policy direction to municipalities within the Greater Golden Horseshoe, including Hamilton. It also provides a framework for infrastructure investments and planning.

5.3 VISION 2020

VISION 2020 is a vision of a strong healthy, sustainable Hamilton shared by citizens, Council, businesses, and organizations. First developed and adopted in 1992, VISION 2020 was renewed by the community in 1997 and 2003, and readopted by Council in

2003. In addition to a vision statement, VISION 2020 provides a set of goals to guide planning and decision-making that considers social/health, economic, and environmental impacts. It has been integrated into the City's primary decision-making processes, including the Growth Related Integrated Development Strategy (GRIDS); the Master Plans for Transportation, Stormwater, Water and Wastewater; the new Urban and Rural Hamilton Official Plans; the Corporate Strategic Plan; and the Social Development Strategy.

Hamilton's VISION 2020 quality of life statement proposes a vision to work toward. It introduces the strategic directions of the Urban Hamilton Official Plan:

Quality of Life

"All of us achieve our full potential in a safe, non-violent environment. Everyone has adequate food, shelter, income, and education. Everyone has a valued role to play in family, work, and community. Healthy lifestyles, improved safety measures, and quality healthcare have progressively reduced disease and disability."

This CIP pertains directly to adequate shelter, health, and safety.

VISION 2020 is based on four main principles. The first is relevant to this CIP: *"Fulfillment of human needs for peace, clean air and water, food, shelter, education, arts, culture, and useful and satisfying employment."*

Of the fourteen theme areas, each with a set of associated goals, the following pertain to this Plan:

- *Local economy:*
 - *To promote the City of Hamilton's environment as a desirable place to live and work*
- *Personal health and well-being:*
 - *To increase the number of years of good health for all citizens by reducing illness, disability, and premature deaths.*
 - *To promote health and prevent disease and injury.*
 - *To improve personal health status.*
- *Safety and security:*
 - *To develop the social and physical environments that allow all citizens to participate fully and safely in our community, schools, and workplaces.*
 - *To have effective plans that identify, reduce and manage risks.*
- *Consuming less energy:*
 - *To reduce the consumption of non-renewable energy, and eliminate the excessive and wasteful use of energy.*
- *Reducing and managing waste:*
 - *To reduce the amount of waste generated by residents, businesses, and government in the City.*

The quality of life, health, and safety links to the Water and Wastewater Infrastructure Support Community Improvement Plan were addressed above. The consumption of less energy and reducing and managing waste relate to the need to dispose of all porous items that are impacted by a sewer back-up, waste that ends up in our landfill site and needs to be replaced, thereby using more energy.

5.4 City of Hamilton Corporate Strategic Plan 2012 - 2015

The Corporate Strategic Plan developed by Council identifies strategic priorities for 2012 to 2015, including the following themes and focus areas:

OUR Mission

WE provide quality public services that contribute to a healthy, safe, and prosperous community in a sustainable manner.

Strategic Priority #1 - A Prosperous and Healthy Community

WE enhance our image, economy, and well-being by demonstrating that Hamilton is a great place to live, work, play, and learn.

Strategic Objectives

1.2 Continue to prioritize capital infrastructure projects to support managed growth and optimize community benefit. Relevant Strategic Action (v): Ongoing implementation of strategies based on recommendations within the Storm Event Response Group (SERG) Study to address flooding issues.

1.5 Support the development and implementation of neighbourhood and City-Wide strategies that will improve the health and well-being of residents.

1.6 Enhance Overall Sustainability (financial, economic, social and environmental).

5.5 GRIDS Background Study: Hamilton's Vulnerability to Climate Change (2004)

The GRIDS Background Study: Hamilton's Vulnerability to Climate Change (2004) ranks climate change threats to Hamilton. Several of the high priority threats pertain to this CIP:

- 1) *"Increased capacity demands on sewage/water control system"* within the Water Resources category;
- 2) *"Health effects of extreme weather events"* that include *"injuries and illnesses, as well as social and mental health stress due to disasters"* in the Health category; and,

- 3) “*Air pollution-related health effects*” which include changed exposure to outdoor and indoor air pollutants and allergens, also in the Health category. Sewage overflow into the home has direct indoor air quality impacts, as well as potential mold growth in the longer term, if the overflow is not addressed fully.

5.6 Official Plan

The Urban Hamilton Official Plan has been approved by Council and the Province, but is under appeal to the Ontario Municipal Board. The Region of Hamilton-Wentworth Official Plan and the Official Plans of the former area municipalities are in effect for the Urban Area, until such time as the Urban Hamilton Official Plan is approved by the Board.

While not currently in effect, the Urban Hamilton Official Plan provides Council-approved direction in support of this Community Improvement Plan's goals, objectives, and programs. The promotion of healthy and safe communities is a core principle of the Official Plan that is seen in several policies, for example, B.1 - Communities, Introduction states:

“Health and safety in our communities is essential. Policies ensure that our communities are safe and healthy. A broad interpretation of health recognizes the inter-relationships between all aspects of our environment and the impacts on the health of citizens. Policies in this section enable healthy lifestyles, promote a healthy and safe community, and promote a high quality of life.”

B.3.2.4.6 The existing stock of housing shall be retained, wherever possible, and kept in a safe and adequate condition through use of the City’s Demolition Control By-law, Property Standards By-law, and incentive programs financed by the City or by senior levels of government.”

The preamble to Section B.3.2.5 states:

“It is important to maintain a balance of primary rental and ownership housing stock. ... The intent of the policies in Section 3.2.5 - Rental Housing Protection Policies is to minimize the loss of primary rental housing, particularly affordable rental housing, while permitting opportunities for neighbourhood revitalization, residential intensification, and affordable home ownership when the rental housing market is strong.”

Extending the 3P Program to residential rental properties promotes the health of those living in rental dwellings and helps to maintain the quality of the City’s limited rental housing units.

5.7 Hamilton Economic Development Strategy 2010-2015

This Community Improvement Plan is supported by the Community Development component of the 2010-2015 Economic Development Strategy. There are four foundation areas of the Economic Development Strategy: infrastructure for innovation, community development, quality of life, and workforce development.

Community Development

The primary goal of the Community Development Strategy is to develop Hamilton as an attractive, inviting, and economically successful mixed-use environment that promotes a positive image and identity for the community.

The primary objectives in the Strategy's community redevelopment component include:

- *Improving the image of Hamilton and stimulating investment;*
- *Utilizing existing infrastructure;*
- *Increasing residential and non-residential assessment; and,*
- *Creating high-quality jobs.*

It is no secret that changing Hamilton's image is ranked as one of the highest priorities by the City's businesses, residents, and local government.

The improvement of plumbing in residential properties, so as to try to minimize the risk of basement flooding and sewer back-ups, should assist in improving Hamilton's image as a good place to live.

The Strategy notes that local government needs to lead the creation of an investment-friendly environment through the application of innovative planning practices, investment in physical infrastructure, and establishment of special purpose programs and policies that attract investment to the City. Programs include delivery of targeted financial incentive programs to assist and encourage residential and non-residential assessment growth, as well as physical and social investments that will address real and perceived issues like safety and cleanliness.

This CIP directs investments to address both real and perceived issues, such as safety and cleanliness.

Quality of Life

Another foundation of the Economic Development Strategy, quality of life is well recognized as an important factor in shaping economic development, and must be viewed as a strategic resource. High environmental quality, culturally desirable working and living conditions, and convenient local amenities are believed to be among the

quality of life factors that are the most vital to retain local business and attract inward investment.

Strong economic performance is a fundamental engine for the factors that make up quality of life; similarly, quality of life is a magnet for business investment, workforce and families. People are attracted to communities that are good places to live, work, learn, and play.

5.8 The Public Works Business Plan, Innovate Now and the Water and Wastewater Strategic Business Plan for 2010 - 2012

The recommendations in this Report will assist in meeting the Public Works Department's key goal, to be recognized as the centre of environmental and innovative excellence in Canada. In addition, implementing the recommendations will assist Public Works in building on our four Strategic Vision Drivers as follows:

Communities (Services our communities connect with and trust)

The proposed extension of the 3P to owners of residential rental properties will improve access to the program and help maintain the quality of the City's valuable rental housing stock. A thorough assessment will provide the property owner with valuable information about their dwelling's drainage and plumbing systems, providing the information they need to make an informed decision. 3P is a key element of the City's climate change adaptation strategy. In terms of capital/program dollars and number of residents assisted, this is possibly the largest and furthest reaching program to address adaptation to climate change in Hamilton.

Bringing multiple existing plumbing programs under the single Water and Wastewater Infrastructure Support Community Improvement Plan document makes the programs more accessible to the community.

People (Skilled teams ready for any situation)

The programs of this Community Improvement Plan demonstrates the ability of City staff to engage and assist the community in protecting property, public health and the environment, and to deliver timely services.

Process (Smart processes to match our needs)

The Public Works Department will maximize its investment by improving its processes and programs to meet the needs of residents.

6. WATER and WASTEWATER INFRASTRUCTURE SUPPORT COMMUNITY IMPROVEMENT PROJECT AREA

This Water and Wastewater Infrastructure Support Community Improvement Plan applies to all lands within the Urban Area of the City of Hamilton. The project area is designated by By-law 13-079, approved by Council on March 27, 2013.

7. GOALS AND OBJECTIVES

With consideration of the broader policy context outlined in Section 5 of this Plan, the goals of the Water and Wastewater Infrastructure Support Community Improvement Plan are to:

- Improve the quality of life for Hamilton residents;
- Improve Hamilton's image as a good place to live;
- Improve Hamilton's ability to adapt to the extreme weather patterns that are the result of climate change;
- Improve the health and safety of citizens by reducing basement sewer back-ups as a result of extreme storms;
- Facilitate ongoing rehabilitation and upgrading of Hamilton's aging infrastructure and housing stock; and,
- Protect the environment by reducing the release of untreated effluent as a result of extreme storms.

8. PROGRAMS AND INITIATIVES

This section outlines programs and initiatives that may foster and support climate change adaptation and residential plumbing improvements within the designated Community Improvement Project Area.

8.1 Provision of Loans and Grants

Through its financial incentive programs, the City of Hamilton will provide grants and/or loans to registered/assessed owners of residential land and buildings to pay for the whole or part of the eligible costs of a project, as described in this Community Improvement Plan.

Approval of all loan or grant program applications is at the absolute discretion of the City, and subject to the availability of funds.

Project costs that may be eligible for financial assistance relate to:

- Assessment of a building's drainage system, including a closed circuit television (CCTV) inspection;
- Installation of an approved backwater valve;
- Installation of a new sump pit and pump, when installed in conjunction with an approved backwater valve (replacement of existing sump pumps are not eligible); and,
- Disconnection of downspouts.

Projects will contribute to the achievement of this Plan's goals and objectives by:

- Improving the health and safety of citizens by reducing basement sewer back-ups as a result of extreme storms;
- Facilitating ongoing rehabilitation and upgrading of Hamilton's aging infrastructure; and,
- Protecting the environment by reducing the release of untreated effluent as a result of extreme storms.

In addition to the following program summaries, Council shall adopt, by resolution, detailed implementation measures to allow for the efficient administration of each financial incentive program. These administration procedures are contained in Appendix '1' to this Plan, Program Guidelines for the Residential Protective Plumbing Subsidy Program, which provides detailed program descriptions, terms, and administration processes.

8.1.1 Residential Protective Plumbing Subsidy Program

The 3P was initially adopted by Council on September 30, 2009, (Report PW09082), and has been reviewed and revised several times since, most recently February 13, 2013 (Report PW11056(c)). The Residential Protective Plumbing Subsidy Program (3P) provides guidance and financial assistance to existing residential property owners seeking to undertake improvements to their eligible properties that will reduce the potential for basement flooding due to sewer surcharge. Residential properties that are owner-occupied or rented and attached to the municipal sewer system are eligible for

the program provided the proposed works conform to the Ontario Building Code⁵. The 3P provides grants of up to \$2,000, and an additional loan of up to \$2,000 for works that exceed the grant amount. The program covers the following works:

- Assessment of a building's drainage system, including a closed circuit television (CCTV) inspection;
- Installation of an approved backwater valve;
- Installation of a new sump pit and pump, when installed in conjunction with an approved backwater valve (replacement of existing sump pumps are not eligible); and,
- Disconnection of downspouts.

This program is a key element of the City's climate change adaptation strategy. This program applies to basement flooding caused by sewer surcharge only, and does not provide relief or assistance for flooding due to any other condition such as overland flooding. Additional details of the 3P are found in Appendix '1' to this Plan, Program Guidelines for the Residential Protective Plumbing Subsidy Program, which provides detailed program descriptions, terms, and administration processes.

The purpose of bringing the program into this CIP is to support applicability to residential rental properties, as well as to owner-occupied residential properties.

9. MONITORING

Weekly monitoring of the Residential Protective Plumbing Subsidy Program is conducted by the Public Works Department. This monitoring includes weekly reports on the number and costs of:

- Backwater valve installations;
- Downspout disconnections;
- Installations of new sump pumps; and,
- Building Permit fee reimbursements.

Compassionate Grants, given through the Residential Municipal Disaster Relief Assistance Program, are also tracked, providing a very rough estimate of the reduction of basement sewer back-ups. Overall program reports are presented to Council annually as part of the budget review process.

⁵ At the time of writing only backwater valves for individual dwellings comply with the Ontario Building Code. When backwater valves for townhouses or multi-unit dwellings comply with the Building Code such dwellings will qualify for the program.

10. APPROVAL AND AMENDMENT PROCESS

This Community Improvement Plan will be reviewed from time-to-time to ensure that it is current and adequately reflects existing City policies and priorities, as well as Provincial policies. Monitoring and applicant feedback regarding the Community Improvement Plan and its programs may also lead to amendments and/or minor revisions to the financial incentive program descriptions and terms.

10.1 Formal Amendments

A formal amendment to this Community Improvement Plan is required in the following instances:

- To introduce any new financial incentive programs, to be added to Section 8;
- To increase the amount of financial assistance that may be provided to registered owners and assessed owners of residential properties, as described in Section 8;
- To change who may receive the financial assistance under existing or any new financial incentive programs, such as tenants and any person to whom an registered owner, assessed owner or tenant has assigned the right to receive a grant or loan, to be added to Section 8; or,
- A change to the Community Improvement Project Area, as described in Section 6.

Formal amendments shall require approval by Council, and shall be undertaken in accordance with Section 28 of the Planning Act and the City's Public Participation and Notification Policies contained in the Official Plan. In accordance with the Official Plan, notification of the required Public Meeting for Community Improvement Plan Amendments shall be given at least 17 days prior to the date of the meeting. The notice shall be given in accordance with the applicable requirements of the Planning Act regulations. Council decisions shall take place no sooner than a minimum of 17 days from the time the first notification is given.

Proposed amendments will be circulated to the Ministry of Municipal Affairs and Housing prior to approval for consultation purposes. In addition, the City may undertake other communication methods to provide information and seek input, such as public information Open Houses, workshops, and direct or electronic mail outs and surveys.

10.2 Other Changes

Council has adopted by resolution detailed implementation measures to allow for the efficient administration of the financial incentive program. These administration

procedures are contained in the program guidelines provided in Appendix '1' to this Community Improvement Plan. Council may discontinue the program contained in this Plan without amendment to the Plan. Formal amendments in accordance with Section 10.1 of this Plan shall not be required for minor administrative amendments to this Plan such as format changes, typographical errors, grammatical errors, and policy number changes. Changes to the program guidelines not requiring a formal amendment will be adopted by City Council by resolution.

10.3 Transition

Program applications will be processed under the terms of the program in effect at the time the application was approved by Council. When program terms are revised, applications submitted and approved under the former terms of the program will be processed under the former terms unless the City receives a formal cancellation of the application.

11. APPENDIX

Appendix '1' to the Water and Wastewater Infrastructure Support Community Improvement Plan, Program Guidelines for the Residential Protective Plumbing Program.

**Appendix '1' to Water and Wastewater Infrastructure Support Community
Improvement Plan**

Residential Protective Plumbing Program (3P) Guidelines

1. Purpose

- 1.1. The following provides details relating to the eligibility for Program participation, scope of eligible works, grant values, application process, and other requirements related to the Residential Protective Plumbing Program (3P).

2. Eligibility

- 2.1. Only residential properties connected to the City of Hamilton municipal sewer system are eligible for the Program.
- 2.2. Only the registered owner of the property shall be eligible for the grant, and must be the registered owner at both the time the works were completed and the application for reimbursement is submitted.

3. Scope of Eligible Works

- 3.1. Works which are eligible for the grant under this Program are limited to the following:
- 3.2. Assessment of the building's drainage system, including a closed circuit television (CCTV) inspection;
- 3.3. Installation of a new approved backwater valve (replacements are not eligible);
- 3.4. Installation of a new sump pit and pump when installed in conjunction with an approved backwater valve (replacement of existing sump pumps are not eligible);
- 3.5. Disconnection of downspouts.

4. Grant Values

- 4.1. Residential property owners will be eligible, upon approval from the City, for a single grant, up to a maximum of \$2,000 for eligible works. This grant may be used towards one or all of the eligible works, subject to the maximums listed in **Table "A"** below.

- 4.2. Where the downspouts are being disconnected by the property owner, only the materials (no labour) will be eligible for the grant, subject to limits listed in Table A.

TABLE A - Properties Described in 4.1

| Eligible work | Percentage covered | Maximum amount of the grant that can be applied |
|---|---------------------------|--|
| Inspection, including closed circuit television inspection (CCTV) | 100% | \$500 |
| Installation of an approved backwater valve | 100% | \$2,000 |
| Installation of a NEW sump pump and pit when done in conjunction with an approved backwater valve | 100% | \$2,000 |
| Downspout disconnection | 100% | \$40 per downspout to a maximum of \$200 |
| Total grant amount shall not exceed \$2,000 | | |

5. Application

- 5.1. To be eligible for the Program, an application, along with 3 written quotes from licensed contractors for the eligible works, must be submitted to the City for review. Once the City has reviewed the quotes, the property owner will receive written notice about whether they have been approved under the 3P Program and what grant amount has been approved, subject to receipt of the final required documents and information described in these Guidelines. Property owners shall not assume they are approved for any grant amount prior to receiving written notice from the City.
- 5.2. All documentation must be originals (no photocopies) and signed by the registered owner of the subject property.
- 5.3. To be eligible for the grant, both the quotes and the assessment must be completed by a licensed contractor(s) qualified to do the work, and signed off by both the property owner and contractor, prior to the work being completed. The assessment must be in a form specified by the General Manager of Public Works.
- 5.4. A copy of the CCTV inspection (DVD) must accompany the application for reimbursement.

- 5.5. One or all of works identified in the assessment must be completed on the sanitary or combined drainage system, prior to issuance of the grant or loan.
- 5.6. With the exception of downspout disconnections, all eligible works must be completed by a contractor licensed in the City of Hamilton for the subject works, with the contractor's license number provided on the receipts.
- 5.7. The contractor's quote and invoice must be itemized in format acceptable to the General Manager of Public Works.
- 5.8. The grants are issued on a per property basis. No more than one grant will be issued per property.
- 5.9. While property owners are free to choose the approved contractor of their choice, the grant amount will be based on the lowest total quote submitted to the City for the eligible works, subject to the maximum amounts, as outlined in Table A.
- 5.10. In order for the grant to be issued, the property owner must provide proof, satisfactory to the General Manager of Public Works, or designate, that the contractor has been or will be paid in full.

6. Other Requirements/Specifications:

- 6.1. Sewer lateral repairs are not eligible under this Program.
- 6.2. An assessment, subject to the specifications of the General Manager of Public Works, shall include as a minimum:
 - a. A CCTV inspection, identification of any upstream connections to the drainage system.
 - b. Assessment of potential for downspout disconnection.
 - c. Written recommendations.
 - d. Documented risks associated with the recommended works.
 - e. Sign offs by both the contractor and property owner.
- 6.3. The purpose of the CCTV inspection of the building drainage system is to identify all sources of drainage into the system, and to determine the best location for the installation of the backwater valve and/or sump pump, as well as to identify any potential adverse impacts of the installation of a backwater valve and/or sump pump.

- 6.4. A sump pump and pit will only qualify for reimbursement if installed in conjunction with an approved backwater valve, and if it is a new installation. Replacement pumps and/or pits are not eligible.
- 6.5. Installation of backwater valves must be compliant with the Ontario Building Code and in a manner acceptable to the General Manager of Public Works.
- 6.6. Building Permit expenses will only be reimbursed when one is required for the works being completed, and it is associated with a property that has previously experienced flooding. Downspout disconnection must be completed in a manner that does not create a potential or real hazard, create an adverse condition for the subject or adjoining properties, or a health and safety hazard for the public.
- 6.7. Once a property owner has received written notice from the City that they have been approved under the 3P Program for a particular grant amount, the eligible works must be completed, and all required documentation and information must be submitted to the City within 6-months of the date of the City's written notice. If the property owner does not meet the 6-month requirement, no grant will be given, and the property owner will have to re-apply for a new grant, subject to review by the City as to the property owner's eligibility for the 3P Program and subject to adequate funding being available.
- 6.8. The General Manager of Public Works may, at their discretion, require additional inspection and/or such other alterations to ensure that works undertaken are acceptable for reimbursement under the Program.
- 6.9. The General Manager of Public Works may, at their discretion, make adjustments to the administrative aspects of the 3P Program at any time without notice.
- 6.10. Program availability continues to be subject to funding, as determined by Council, and may be discontinued at any time without notice.

7. Loan Details:

- 7.1. Loans may be available to cover all applicable estimated costs (as approved and determined by the General Manager of Public Works) for undertaking residential protective plumbing measures, as described in Paragraph 3. Loans will not be available to cover any other associated costs (e.g. it will not cover the costs of repaving of an entire driveway, restoration of landscaped yards, or any other such costs that are deemed by the General Manager to be unnecessary for the installation of protective plumbing measures).

- 7.2. The loan, if approved, will only be paid to the residential property owner upon receipt of invoices for completed work and inspection of the completed work by City staff under the associated permits.
- 7.3. Any work that is commenced or completed, prior to the loan application approval, will be ineligible under the 3P Program (unless waived at the General Manager of Public Works discretion).
- 7.4. The amount of each loan will not exceed \$2,000.
- 7.5. The loan amount, plus interest, will be transferred to the tax roll for the owner's residential property, as a special charge, for up to a ten (10) year period. The yearly loan amount, plus applicable interest, will be repayable on the final tax installment due dates.
- 7.6. Loan approvals are subject to the availability of funding, at any given time, as determined by Council. Loan applications will be processed in chronological order based on the date of receipt of applications.
- 7.7. Loan approvals will be valid for 6-months, and will expire if the work is not completed within that time period (unless extended at the General Manager of Public Works discretion).

Security:

- 7.8. The loan will be added to the tax roll for the owner's residential property. Loans will be noted on the next tax roll, and will show on a Treasurer's Certificate as a special charge.

Repayment of the Loan:

- 7.9. Repayments of the loan, plus interest, will be made through taxes, as set out in the Commitment Letter signed by the owner(s). Full repayment (including interest) can be made at any time, with no penalty to the owner. At the discretion of the City, the loan may be transferable to a new owner provided that the new owner agrees, in writing, to the terms and conditions of the loan. In the event of default in loan repayment over thirty (30) days, or in the event of sale of the property, the outstanding balance (including principal and interest) may be immediately payable. A further penalty of 15% per annum will be applied against any unpaid balance on taxes applied at 1.25% per month applied the first day past due.

Loan Application and Procedures:

- 7.10. The applicant/residential property owner(s) are required to complete an application form provided by the Public Works Department (Hamilton Water Division). Every person who is registered on title as an owner of the property is required to sign the application.
- 7.11. In addition to the completed application form, the applicant/owner(s) must provide such other further information or documentation as may be required by the General Manager of Public Works.
- 7.12. The City reviews the application and supporting documentation, decides whether to approve the loan amount, and determines the loan amount. The City will advise the applicant, in writing, of its decision and provide a Commitment Letter for the owner to complete.
- 7.13. The owner(s) must complete and sign the Commitment Letter, forwarding the original copy to the Finance and Administration - Hamilton Water, 77 James Street North, Fourth Floor, Hamilton, ON, L8R 3M8.
- 7.14. The owner or contractor must obtain any necessary permits prior to the commencement of work. Failure to obtain required permits prior to commencement of work, and having a related inspection completed, will result in cancellation of any approved loan amounts.
- 7.15. The owner or contractor must co-ordinate work with the City well in advance. The owner or contractor is responsible to obtain all utility locates for the work for both private and City property (where necessary).
- 7.16. The owner or contractor must arrange for an inspection by the City with respect to the installation of a backwater valve, or new sump pump and pit. If works are not inspected by the City, any approved loan amounts will be cancelled.
- 7.17. Within 6-months of receiving loan approval, the owner(s) must submit to the City the final invoice from the contractor setting out the amount due for the work and/or invoices for materials and equipment related to the eligible residential protective plumbing measures performed. Any owner submitting an invoice more than 6-months after the loan approval will be ineligible for payment of the loan. The City will not provide a loan for an amount greater than the approximate loan amount set out in Paragraph 7.12 above, even where the final invoice is greater than the approximate loan amount.
- 7.18. The City may advance either the invoice amount submitted by the contractor or the amount of the approximate loan amount, as set out in Paragraph 7.12. above, whichever is less, to the applicant owner(s).