SUBJECT: Residential Protective Plumbing Subsidy Program (FCS09100/PW09082(a)) (City Wide)

RECOMMENDATION:

a) That Council approve a loan component for the Residential Protective Plumbing Subsidy Program to be offered and funded through a long-term receivable account to be established, with repayments occurring, as an annual charge, for each property added to the final property tax billing;

b) That the interest bearing loans eligible under the Residential Protective Plumbing Subsidy Program be based on the City’s ten (10) year cost to borrow and treated in a like manner as property taxes over a ten (10) year period with a maximum loan of $2,000;

c) That grant payments, permit fees and other administrative costs associated with the Residential Protective Plumbing Subsidy Program be funded from Wastewater Reserve Account 108005;

d) That ongoing staffing impacts related to the Residential Protective Plumbing Subsidy Program be identified and brought forward for consideration as part of the 2010 Rate Supported Budget Process;
e) That if homeowners that have flooded in the past do not take advantage of the Residential Protective Plumbing Subsidy Program, for either the grant and/or the loan components, in order to undertake some corrective protective plumbing measures, that they may not be eligible for future reimbursement under the Compassionate Grant Program should Council extend this program to future flooding disasters;

f) That the amount of the loan, together with any interest, be deemed to be a “charge” within the meaning of Part XII of the Municipal Act; and

g) That Council considers that the normal public notice of this meeting of its Audit and Administration Committee is adequate notice for the purpose of this programme within the meaning of By-law 07-351.

EXECUTIVE SUMMARY:

Report FCS09100)/PW09082(a) recommends the approval of a Residential Protective Plumbing Subsidy Program (RPPSP). The purpose of the RPPSP is to provide homeowners with the opportunity to access funding, through a grant of up to $2,000 and an interest bearing loan up to $2,000 from the City, for the purpose of assisting homeowners by subsidizing the cost of investigations, installation of devices, drainage improvements and related works to help protect basements from chronic flooding as a result of storm water overloading of the wastewater collection system. The loan component of the RPPSP, has been modelled on the City’s successful Lead Water Service Replacement Loan Program (LWSRLP).

The RPPSP enables eligible residential property owners who meet the program requirements, (refer to Appendix “A” of report FCS09100/PW09082(a)), to receive a grant to a maximum of $2,000 and the option to utilize a loan to repay the cost of protective plumbing measures where costs exceed the $2,000 grant maximum, in a like manner as property taxes, over a ten (10) year period. Each household will be eligible for a maximum loan of $2,000.00. The interest charged, on an annual basis, is based on the City’s ten (10) year cost to borrow and the rate is maintained for the entire period of the loan. The interest rate will be reviewed annually and reset for the purpose of new loan applications, as required, at the beginning of each calendar year, based on the City’s ten (10) year cost to borrow as of December 31st of the preceding year.

Transferring the loan to the tax roll enables homeowners who wish to undertake protective plumbing measures with costs exceeding the City’s grant of $2,000 with an
option to repay the cost, over a number of years, and provides the City with a convenient
method in which to collect repayment of the loan.

The RPPSP is targeted at residential property owners, as property owners have the
authority to undertake capital improvements and apply for a loan that will be transferred
to the tax roll.

There are numerous methods that a homeowner may choose to protect their homes from
flooding in the future, they include, installing sump pumps, installing Back Water Valves,
repairing a damaged lateral, disconnecting their downspouts, and/or disconnecting their
foundation drains. It is the homeowner’s right and responsibility to use these funds
offered by the City, in conjunction with a licensed plumber, to determine the best course
of action for their particular home. If a homeowner who has previously flood and
accessed the compassionate grant offered by the City, chooses not to take advantage of
this opportunity they may (at the City’s discretion) be exempt from any further
compassionate grants, if they are so offered.

BACKGROUND:

Report FCS09100/PW09082(a) is in response to direction provided to staff by Council at
its August 4, 2009 meeting, requesting:

That staff develop and report back on a mitigation program, that entails investments
valued at approximately $2,000, per residential property, that have experienced multiple
basement flooding, on a prioritized basis, in an effort to minimize the potential impacts
due to severe weather events;

Since 2004, the City has been subject to increasingly frequent and severe storms that
have resulted in overloading of segments of the wastewater collection system. This has
resulted in sanitary backups and basement flooding in many areas of the City. The
potential impacts of climate change could mean that this trend of less predictable
weather and more extreme storms will continue. Consequently, a proactive approach at
the lot level to minimize the potential impacts due to severe weather events, beyond just
capital works, must be examined and implemented.

In addition to the financial assistance provided by the Compassionate Grant Program,
and as part of the ongoing initiative to reduce flooding impacts, staff recommends to
initiate a Residential Protective Plumbing Subsidy Program (RPPSP) to assist with the
cost of installing devices (i.e. Backwater valves) and related works that may help protect
basements from flooding resulting from sewer surcharging and from defects and
deficiencies on residential private property drainage systems (i.e. cracked and blocked
laterals).

These protective plumbing measures would be subsidized by the City for each eligible
household up to a cost of $2,000 in the form a grant. Where costs exceed the $2,000
maximum grant, the property owner will be offered the opportunity to utilize an interest
bearing loan to a maximum loan of $2,000. The RPPSP will be delivered on a prioritized basis focusing on those areas of the City that are most frequently and severely affected by wet weather events.

In order to implement the program in the most expeditious manner the Environment & Sustainable Infrastructure division intends to retain contracting and/or consulting service to assist with inspection services and program administration. The intent is to work concurrently with the successful proponents to inspect sewer laterals and property drainage in an effort to implement solutions quickly and effectively.

Solutions can include:
- Inspection and lining or replacement of sewer laterals on the Private portion, Public portion, or both.
- Disconnection, capping and redirection of downspouts.
- Contract administration services to reimburse households for the installation of a Mainline Backwater Valve and associated residential plumbing inspection services completed only by a Licensed Plumber.

ANALYSIS/RATIONALE:

Due to frequent and severe basement flooding and the likelihood of future severe storms there is a need to quickly implement solutions at the lot level to complement longer term capital works. It is likely that drainage design limits will continue to be stressed and exceeded.

Lot level solutions can be implemented in the short term:

Lateral Investigation and Rehabilitation

Leaky and damaged laterals can contribute a significant amount of unintended excess flow to the collection system, contributing to widespread surcharging, or may become blocked, flooding the homeowner. A review of the literature indicates that leaky laterals can contribute more than 50% of the unintended extraneous infiltration to a collection system. Closed Circuit Television (CCTV) inspection and required servicing will reduce the frequency of sewer lateral related flooding problems.

In addition, laterals that are clogged, broken or have serious root intrusion can cause severe and repeated flooding in basements if the weeping tiles are hooked up to the floor drain. The repair of these laterals could drastically reduce the amount of flooding in some areas.

Downspout Disconnection

Where feasible, the disconnection of downspouts and redirection to a pervious surface may delay runoff and reduce overloading of the collection system. This will require the
amendment of certain planning policies and By-laws and not all homes would be a candidate for this type of program.

**Backwater Valves**

Installation of a backwater valve can effectively isolate a basement from flooding due to temporary sewer surcharge. The Mainline Full-port Backwater Valve™ is currently the only backwater valve approved in the Province of Ontario for home installation that may be installed on the Homeowner’s main sanitary sewer lateral. The normally open design allows unobstructed sewage flow and automatic closure of the gate upon reversal of flow (sewer backup) protecting the entire building from backflow.

Manufactured in Canada, this award winning valve has been installed across North America since 1997, with hundreds of thousands of installations to date, and over 40,000 new installations per year. The plumbing code in Alberta requires every building to be protected and the Mainline valve is used in about 95 per cent of the homes in western Canada. In new homes, the company has never had a valve failure.

Other major municipalities such as Halton, St. Catharines, Niagara Falls, London, Saskatoon, Ottawa, Toronto and Edmonton have implemented flood relief programs consisting of some or all of the above with good results. Water and Wastewater staff have consulted with many of these other municipalities, gaining valuable insight into best practices and lessons learned and are prepared to implement this program.

Experience with the City’s Lead Water Service Replacement Loan Program (LWSRLP) has demonstrated that providing financial assistance via the proposed RPPSP will allow for some property owners to undertake protective plumbing measures who otherwise would have deemed these works cost prohibitive.

**ALTERNATIVES FOR CONSIDERATION:**

1. Do not offer a loan program – the availability of a City provided loan program will enhance the affordability for some property owners to undertake protective plumbing measures. Therefore not offering a loan program is not recommended.

2. Offer an interest-free loan component – This alternative is not recommended as there is a cost associated with loans such as staff-time, lost investment revenues or increased costs of borrowing. Recently, most recommended loans (as is the case with the LWSRLP) have used the cost of borrowing (serial debenture rates) plus .25% administration as the interest rate. These rates still tend to be lower than those offered by financial institutions and allow the City to recover some of the costs associated with providing loans to residents or other external organizations. This approach is consistent with the City’s External Loan Guidelines.
FINANCIAL/STAFFING/LEGAL IMPLICATIONS:

**Financial:**

A total of $1.85 Million in compassionate grants was allocated for flood events between July 2005 and August 2008. Compassionate grants for flooding resulting from the July 26, 2009, storm is forecast at an additional $4.7M to $5.9M. The amount for the August 29th storm is to be determined.

It is difficult to estimate the expected uptake for the Residential Protective Plumbing Subsidy Program (RPPSP) but using a conservative assumption that 1,000 property owners pursue eligible protective plumbing measures in the program’s first year, then the resulting costs would amount to approximately $2 million in the form of grants, $120,000 for related plumbing permits and assuming the average loan would be for $1,000 that would bring the first year costs of the RPPSP to $3.12 million. This cost projection excludes any sewer lateral work that may be identified as recommended to be completed.

The projected 2009 reserve for Water, Wastewater and Storm is approximately $42 million. These reserves are assumed as part of the ten year Water Wastewater and Storm capital financing strategy, the persistent depletion of these reserves for compassionate grants will threaten the sustainable financing of future water, wastewater and storm infrastructure investments, or require future rate increases to offset these and potential future transfers to match funds with the Municipal Disaster Relief Program Reserve.

There is potential for a good return on investment for the RPPSP with fewer applications for compassionate grants as more basements are protected, laterals are rehabilitated and downspouts are disconnected.

**Staffing:**

The workload associated with the RPPSP will be identified and brought forward as part of the 2010 budget process.

**Legal:**

There are currently a number of By-laws relating to lot drainage, specifically downspout drainage. For houses with a roof area >50 m2 built after 1987 and serviced by separated sanitary sewers constructed after 1970 downspouts must be connected to the storm sewer (By-laws 88-009 and 88-207). There are likely very few areas of the city that fall into this category and are affected by chronic flooding however, pending further analysis there may be a need to amend the By-law.

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

Communities (Services our communities connect with and trust) –

Implementing the Residential Protective Plumbing Subsidy Program will improve the quality of life of our community and help us deal with the effects of wet weather impacts caused by severe storms and climate change while adhering to the mandate of the Water and Wastewater Division to protect public health, property and the environment.

People (Skilled teams ready for any situation) –

This program demonstrates the ability of our City staff to engage and assist our community in protecting property, public health and the environment and deliver timely services. This proposed program demonstrates forward thinking and creative solutions to the problems in our community.

Process (Smart processes to match our needs) –

Public Works will maximise our investment in smart processes and divisional tools to manage this program while we continually define and map improvements.

Finances (Sound finance management for the long haul) –

The Residential Protective Plumbing Subsidy Program will likely deliver a good return on investment by reducing the extent of future flooding and the need for Compassionate Grants.

RELEVANT CONSULTATION:

Public Works Department – Capital Planning and Implementation Division
Corporate Services – Legal Services

CITY STRATEGIC COMMITMENT:

By evaluating the “Triple Bottom Line”, (community, environment, economic implications) we can make choices that create value across all three bottom lines, moving us closer to our vision for a sustainable community, and Provincial interests.

Community Well-Being is enhanced.  ☑ Yes  ☐ No
This program will assist those in need during a traumatic time in their lives and will enhance homeowner’s stress over future heavy storm events.

**Environmental Well-Being is enhanced.** ☑ Yes ☐ No
By reducing the number of sewers that back up into people’s basements we are eliminating a potential health risk due to bacteria and mould infestation.

**Economic Well-Being is enhanced.** ☑ Yes ☐ No
This program will assist the City enhance its image in the community, which should assure people that when they move to a home in Hamilton, the City will help them in a time of need. This should attract people to this community and enhance overall economic well being.

**Does the option you are recommending create value across all three bottom lines?** ☑ Yes ☐ No
This program offers a balance between the environmental, social and economic well being and offers value to all three.

**Do the options you are recommending make Hamilton a City of choice for high performance public servants?** ☑ Yes ☐ No
This program is leading edge and will encourage staff to be compassionate and assist their fellow citizens in a great time of need.
Purpose
The City of Hamilton’s Residential Protective Plumbing Program (RPPSP) provides financial assistance and guidance to residential property owners respecting improvements to household plumbing in order to protect their properties from basement flooding as a result of sewer surcharging. Property owners may undertake improvements to their homes by completing one or all of the following – installation of backwater valves, sump pumps installation, sewer lateral repairs or disconnecting downspouts. Property owners are encouraged to consult an expert before undertaking any of these works to ensure they achieve the protection they seek. The property owner may be eligible for a $2,000 maximum grant and the opportunity to utilize a loan to finance the costs of protective plumbing measures that exceed the $2,000 grant maximum.

Definitions
“City Engineer” means the General Manager of Public Works or designate;
“Contractor” means the person hired by the owner to conduct the work;
“dwelling” means a building containing one to three dwelling units;
“dwelling unit” has the same meaning as contained in the City’s Zoning By-law;
“owner” means an owner in fee simple under the Land Titles Act, R.S.O. 1990, c. L.5;
“property” means a separate parcel of land which has been assigned a property identifier under section 141 of the Land Titles Act, R.S.O. 1990, c. L.5;
“sewer lateral” means the portion of a service pipe located on private property from the property line to the dwelling;
“protective plumbing measures” for the purposes of the RPPSP includes any of the following improvements: installation of backwater valves, new sump pump and pit installation, sewer lateral repairs or disconnecting downspouts.

Funding
Grant and Loan commitments will be provided subject to funding availability as determined by Council at its’ sole discretion from time to time.

Eligible Work
The only work that is eligible for this Program includes any of the following improvements:
- installation of backwater valves;
- new sump pump and pit installation;
- sewer lateral repairs;
- disconnection of downspouts.

Eligibility for Program
The applicant(s) must meet the following criteria in order to qualify for the Program:
- must be the owner(s) of the property;
- property must have experienced flooding during one or more of the following storm events:
  - August 19th, 2005
  - July 26th, 2006
  - June 10th, 2006
  - May 25th, 2007
Residential Protective Plumbing Subsidy
Program Guidelines

- June 22nd, 2008
- July 11th, 2008
- July 19th, 2008
- July 21st, 2008
- August 5th, 2008
- July 26th, 2009
- August 19th, 2009
- Any future storm event that is recognized as a “disaster” by Council for the purposes of invoking the Residential Municipal Relief Assistance Program for Basement Flooding.

• all owners of the property must apply for the grant and/or loan;
• work performed by contractor must be licensed with license number provided on receipts;
• to be eligible for a loan, all property taxes must be current at the time of application and at the time of loan payment;
• where a loan is sought, the owner(s) must complete and sign the Commitment Letter;
• the owner(s) must meet all conditions of this Program.

Approval of all grant and/or loan applications is also subject to availability of funding at any given time, as determined by Council.

This Program is available for residential property owners only, thereby excluding industrial, institutional or commercial enterprises.

**Loan Details**

Loans may be available to cover all applicable estimated costs (as approved and determined by the General Manager) of undertaking protective plumbing measures as defined. 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.

The loan, if approved, will only be paid to the owner upon receipt of invoices for completed work and inspection of the completed work by City staff under the associated permits.

The amount of each loan will not exceed $2,000.

The loan amount, plus interest, will be transferred to the owner’s tax roll, as a special charge, up to a ten (10) year period. The yearly loan amount plus applicable interest will be repayable on the final tax installment due dates and calculated, in a like manner, as Local Improvement Charges are calculated.

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.

Loan approvals will be valid for twelve (12) months and will expire if the work is not completed within that time period (unless extended at the General Manager’s discretion).
Residential Protective Plumbing Subsidy
Program Guidelines

Security
The loan will be added to the owner’s tax roll. 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
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.

Application Procedure
1. The applicant owner(s) will be required to complete an application form provided by the Public Works Department (Water and Wastewater). Every person who is registered, on title, as an owner of the property is required to sign the application.

   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.

   Any work that is commenced or completed, prior to the loan application approval, will be ineligible under this Program (unless waived at the General Manager’s discretion).

2. City reviews application and supporting documentation and decides whether to approve the loan amount and determines the loan amount. City advises applicant, in writing, of its’ decision and provides Commitment Letter for owner to complete.

3. The Owner(s) will complete and sign the Commitment Letter, forwarding original copy to Finance and Administration – Water and Wastewater Division, 55 John Street North, Hamilton, ON, L8R 3M8.

4. Owner or Contractor obtains any necessary permits prior to the commencement of work – note that the permit fees for the Program have been waived by the City. Failure to obtain required permits, prior to commencement of work and having related inspection completed, will result in cancellation of any approved loan amounts.

5. 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).

6. The Owner or Contractor must arrange for an inspection by the City with respect to the installation of a backwater valve, new sump pump and pit installation or sewer lateral repair/replacement. Permits that have not had an inspection by the City will result in cancellation of any approved loan amounts.

7. Within twelve 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 protective plumbing measures performed by the Owner. Any owner submitting an invoice more than twelve (12) 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 2 above, even where the final invoice is greater than the approximate loan amount.

8. 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 2 above, whichever is less, to the applicant owner(s).

Information to Accompany Application
- complete application form signed by all owners;
- such other further information or documentation as may be required by the General Manager.

Not Retroactive
The Residential Protective Plumbing Subsidy Program will not apply to work commenced prior to July 26, 2009.

Discontinuation of Program
The terms of the Program are subject to change. Council may periodically review the Program Guidelines to determine if the Program should continue, be modified or cease to issue any new grants and/or loans. The City may discontinue the Program at any time.

City Not Liable
In order to qualify for a grant and/or loan, the owner agrees that the City shall not be liable for any damages to the owner’s property as a result of any protective plumbing measures that are undertaken by the property owner.