PROBLEM:
- Since the flooding in 2005:
  - Residents are checking their basements every time there is a heavy rain and/or a thunderstorm
  - Residents are clearing debris from catchments during rain events to assist in preventing overland flow, which contributed to the flooding of several homes due to the design, as much as possible
  - Flooding has occurred in the same areas in 2011. This is not acceptable.

ACTIONS TAKEN:
- Since 2005 City initiated a plan to install back-water valves (backflow preventers) on connections to homes. This did not include the disconnection of the eaves trough downspouts or installation of sump pumps.
  - Due to flooding in 2005 the City of Toronto initiated a program which included a subsidy to install back-water valves, disconnecting/capping the laterals (connection to storm sewer from homes) sump pumps and disconnect the eaves trough downspouts.
  - The Toronto solution presents a short term, cost effective solution to the residents impacted by the 2005 flood.
- Hamilton initiated several studies/reports/reviews. Documents have been provided for review.
- Resolution of the flooding problem was identified as a “High Priority” in 2006.
  - As a “High Priority” item, it would be expected that the recommendations from the 2008 EA would be in the capital budget.
  - If this had been a “High Priority” it could have been a “shovel ready” project for Infrastructure Stimulus Funding (ISF).
    - NOTE: ISF program was extended as many municipalities put forward projects which were not truly “Shovel Ready”. Hamilton is not an exception to this – see article in Hamilton Spectator discussing the “Shovel Ready” projects (date unknown).
- In the meeting held on June 17, 2011, residents were informed that the City completed a Dual Drainage Model.
  - Q: What were the results of this model? Kindly advise.
  - Q: When was this model completed? Kindly advise.
  - Q: What are the recommendations from this model? Kindly advise.

Q: What other actions have been taken?
Q: Has the City engaged a consultant or their own staff to commence a preliminary design?
Q: In what year has this capital project been accounted for in the budget?
  - As a “High Priority” it is reasonable to assume that it would have been implemented by now.
    (6 years after initial flood, 3 years after EA filed.)

NEXT STEPS:
- As a “High Priority”:
  - Set-up and Community Liaison Committee (CLC). This City has already done this in several communities. A third party mediator is requested.
    - CLC’s meet in the evening at a local location close to the residents
    - Low cost solution, mediator approx. $2,000.00 per meeting
    - Meetings are typically 2 hours long
    - Meeting minutes generated and circulated
    - Meetings held quarterly to provide updates and show progress
  - Set-up a website providing updates to all residents in the area.
• Conveys progress made
• Can be linked to Councillor Whiteheads website
• Consider initiating a program **now** to fully subsidise the disconnecting of down spouts, installation of a plug on the drain to the storm sewer, and a sump pump of all homes recently flooded.
  ▪ These should be considered high priority homes since it has occurred twice.
  ▪ Home owners need to present “proof of damage” through insurance or other means acceptable to the City.
  ▪ **This is a good time to do it as most basements are currently torn up due to the flooding.**
  ▪ Presents a low cost alternative to assist in addressing the actual problem
  ▪ Provides the City with some time before digging up the sewers and installing sub-terrain overflows which carry the flood water to an acceptable underground storm retention system
• Consider underground storm retention system on the property of Sir Allan MacNab High School
  ▪ Permits continued use of grounds
  ▪ Eliminates concerns expressed by School Boards in other communities regarding surface storm retention ponds – security, liability, etc.

**CONCERNS:**
• City is “hiding” from the problem rather than addressing it. (6 years since last flood)
  ▪ Funds are available through government programs.
  ▪ Had the project been further along it could have been considered for ISF.
  ▪ No more studies, commence a Schedule B or C Municipal Class EA and go forward with a preliminary design. This technology is not changing rapidly so the time spent now will not be lost.
• City staff in meeting on June 17, 2011 was not educated on the matter and could not answer many questions. One resident overheard a City staff member ask “Where is this street?” while leaving the meeting.
  ▪ It appears that the City is not considering this a “High Priority”.
   ▪ The studies indicated the need for another storm retention pond at the intersection of Sanatorium Road and Scenic Drive.
   ▪ Oddly enough this does not appear on the plans of the developer for this land.
• Required construction funds have not been put forward in the capital budget since completion of the EA in 2008.

**ATTACHMENTS:**
1) Map of area indicating the size and location of the storm sewers in the neighbourhood. Source: City of Hamilton Geographic Information System (GIS).

**NOTES:**
  a. Slopes/Grades of pipe not known
  b. Not an Engineering Drawing
  c. Road elevations not shown, but clearly indicated by flood zones in earlier reports.

Submitted by Chris Mills, P.Eng.
A resident of Forestgate Dr.
June 20, 2011
This plan is suitable for Information only. The City of Hamilton accepts no liability for any error whatsoever.

**THIS IS NOT A PLAN OF SURVEY**

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**A** APPROX. 235m IN LENGTH

**B** APPROX. 259m IN LENGTH

**C** **LOCATION OF SUB-SURFACE STORM RETENTION WITH CONTROLLED DISCHARGE**

Produced by Guest 22:23 6/17/2011

贺尔顿 G15. in mm

所有水流向北

http://map.hamilton.ca/interactivemaps/commands/printadvanced/print_preview_landscape.asp
Frankly, I am unable to attend the meeting to be held on Friday, June 17, 2011 at 15:30 hours. I have work commitments which I am unable to escape from.

Anne, thank you for notifying me of this meeting and thank you for a copy of the PIC material. I have done what I can to read these and gain a better understanding of where we are at.

Mr Whitehead, thank you for arranging this meeting.

I have several questions which I would like addressed and believe that they should be brought up in this meeting as well as in a subsequent meeting with the Public Works Committee as the concerns of the residents need to on public record. This is not just for our generation experiencing these problems but for future generations and Hamilton residents in this area.

My questions/comments are as follows:

1) Has the storm water system around our area been subject to a Dual Drainage Model? This model would include:
   a. Storm sewer (sizes and slopes)
   b. Surface drainage
   c. Clearly identify the catchment area(s)
   d. Identify the number of storm sewer connections
   e. Identify the number of houses connected and the number of downspouts connected

2) What was the existing storm sewer design to? My understanding is neighbourhoods which are 40+ years of age (our neighbourhood) are designed for a 2 to 3 year storm event, perhaps 5 if the City was proactive at the time.

3) It is clear that sections on Forestgate are not designed for overland flow. This was identified in the first and second PIC – there has been no construction effort, or engineering design to change this. With the recent storm event my wife and I had the unfortunate pleasure of watching the water level rise on the street. The water was physically spurting out of the storm sewer manhole indicating the system was surcharging. As the water crested over the sidewalk we began to have water in our basement. It was at this time that water entered into the basement of several neighbours as well. The water level was approximately 50mm (2 inches) to 100mm (4 inches)
over the sidewalk. Does the City consider this to be an effective and efficient system? Is it easier for the City to have the Risk Management Team to continue to pay a small amount directly to the people of Hamilton rather than actually address and fix the problem?

4) We were identified as a “High Priority Area” in the September 20, 2006 PIC. This is nice. What is the City doing about it? Five years have passed with no Municipal Environmental Assessment being done.

5) In PIC #2 there is mention of using part of Sir Allan MacNab for a storm water retention pond. Historically, the school boards frown on this; however, technology is available to allow a subsurface retention system. There are many different manufacturers. The following link is one such manufacturer [http://www.stormtech.com/](http://www.stormtech.com/). Please note that I have no affiliation nor do any family members or friends to this company. This is provided as education only. This option permits the continued use of green space for the community to enjoy as the system is “hidden”. Based on my own engineering experience I believe this to be a viable and economic solution. A below grade overflow chamber with one large grate for surface catchment located in the low section on Forestgate would represent the starting point to bring water to the retention pond location. This may be connected via a smaller storm drain to the low section on Magnolia.

Anne,

Item number five is identified in the PIC#2 documents. This is very close to what I was describing to you earlier this week. Do you need the reports back? I will leave them at the house.

Thank you for your time.

Regards,
Chris Mills, P.Eng.

6/17/2011