



**HAMILTON WATER**  
WATER IS LIFE

**Public Works Committee**

February 1, 2016

Item 7.1



**Hamilton**  
Public Works

# **Winter 2016 - Frozen Services Overview**

## Hamilton Water

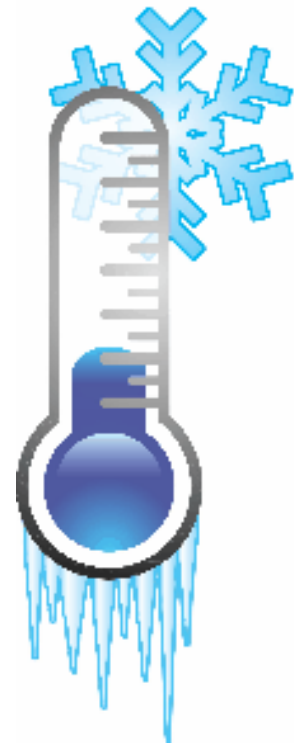
Public Works Committee

February 1, 2016



# Agenda

- Review of Winter 2015
  - Weather
  - Frozen services and broken water mains
  - Review of Winter 2015 statistics
  - Hamilton Water response
  - Financials
- Community outreach and education
- Process changes
- Contractual services
- Technology advancements
- Continuous improvement



- Community
- People
- Processes
- Finance



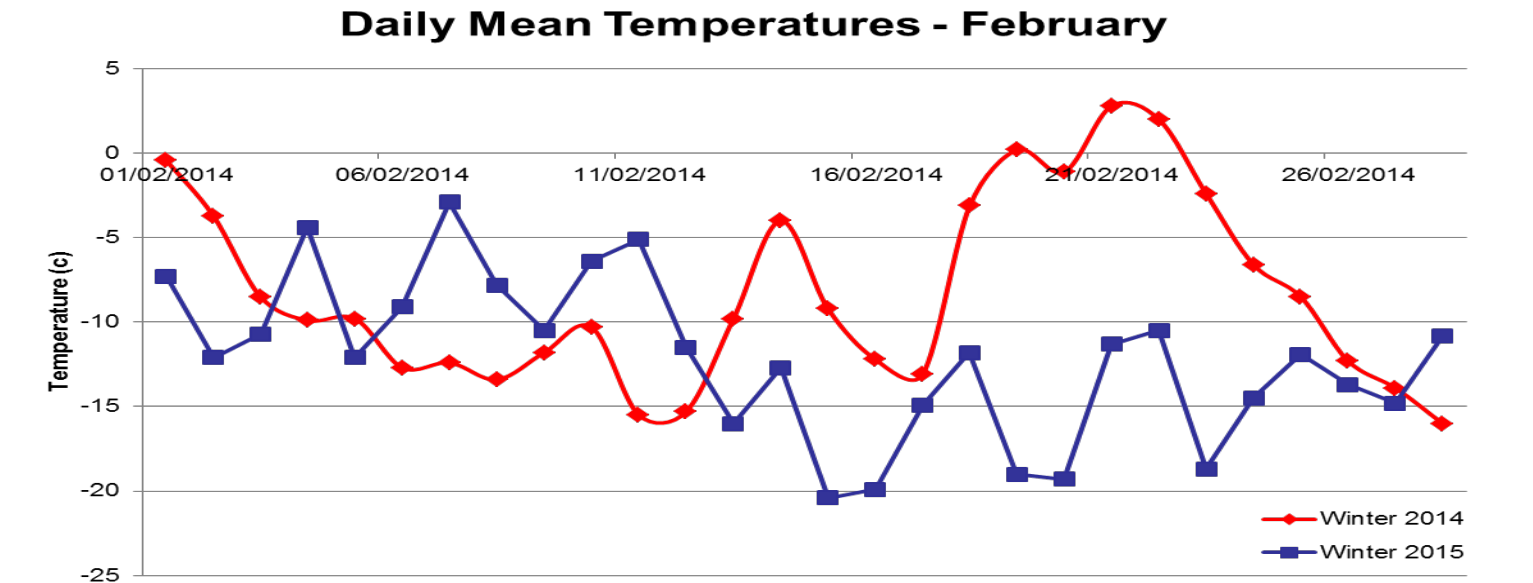
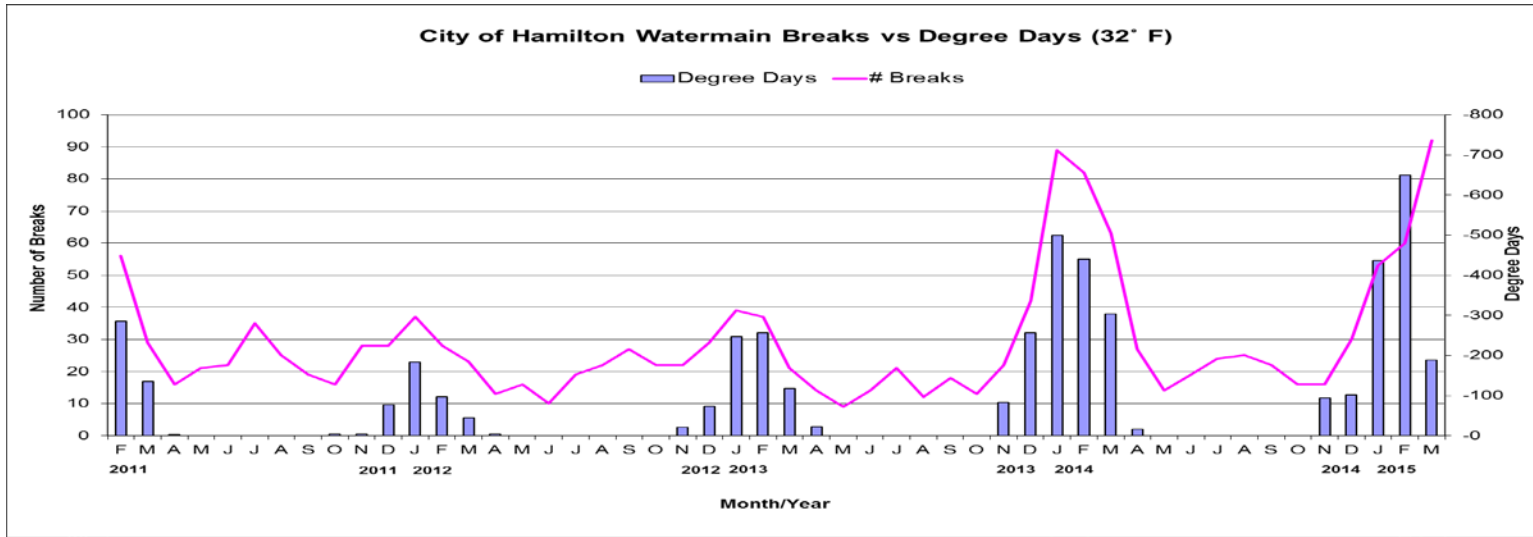
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# Winter 2015 Weather

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## Winter 2015 Statistics

Service	2009 - 2013 Average	2014	2015	2016**
Water Main Breaks	150	277	209	49
Frozen Service Calls	30	674	1213	2
Frozen Services (Unique Addresses)	5	197	569	0
Water Delivery	< 1	204	1863	0
House to House Connections	0	10	121	0

\*\* As of January 27, 2016

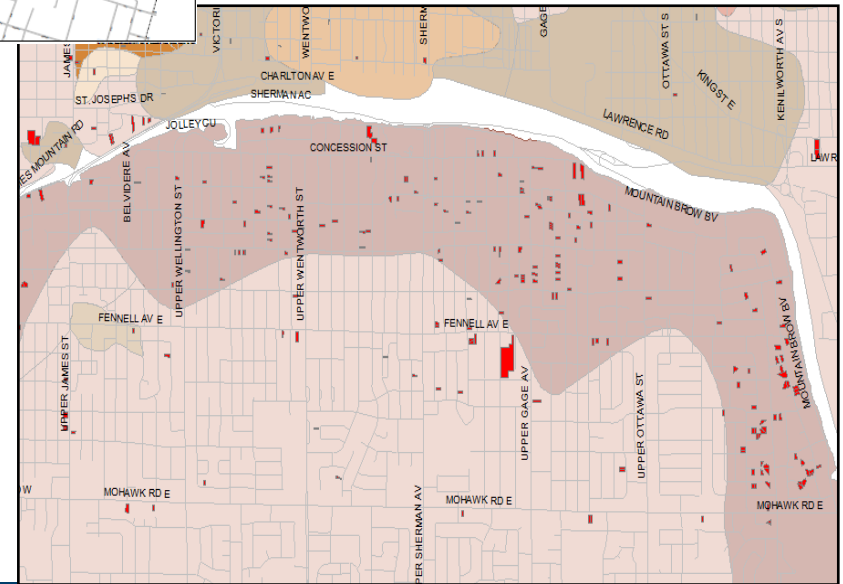
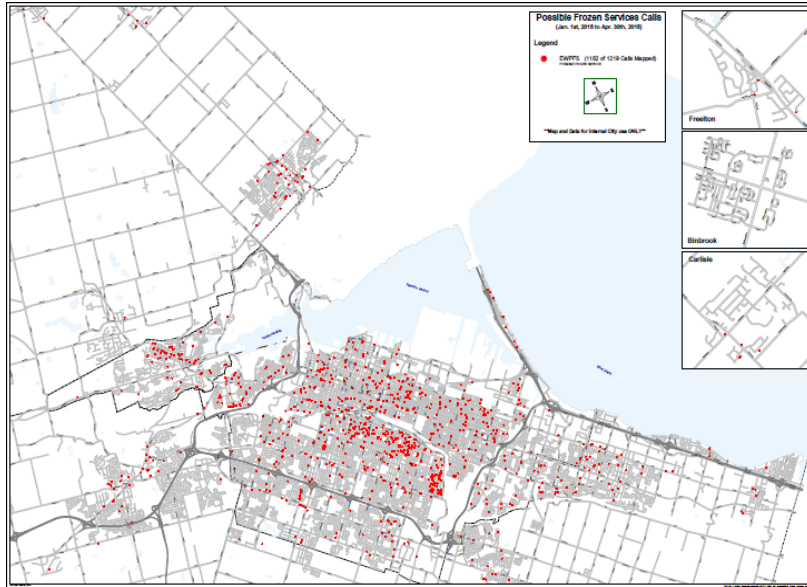
# Winter 2015 Frozen Service Mapping



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- People
- Processes
- Finance



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# Hamilton Water - Winter 2015 Response



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**External Service Thawing**



**Water Delivery**



**House to House Connections**



**Emergency Operations Center**

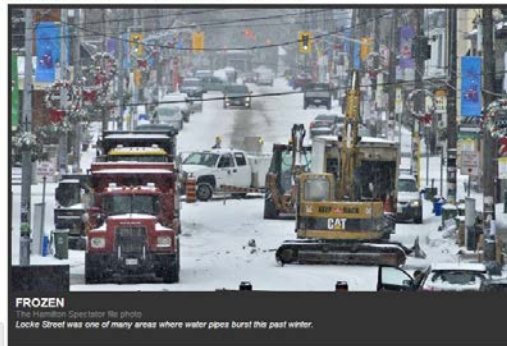
# Hamilton Water - Winter 2015 Response

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**Water Filling**

Cold, hard cash for frozen pipe relief? Hamilton ponders offering 'disaster relief'



Hamilton Spectator  
By Matthew Van Dongen

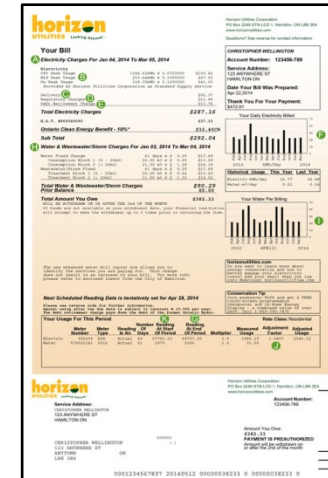
Hamilton is poised to label February's frozen pipe epidemic a "disaster" in order to offer \$500,000 in relief grants to potentially hundreds of homeowners.

Turns out the city is not alone, though — Winnipeg and Guelph have both explored the idea of compensating residents for Mother Nature's temperature tantrum.

The compassionate grants — up to \$1,000 per household — would be offered to 569 households where thawing was required on the city-owned side of water service lines. If it happened on private property, you're still out of luck.

The city's public works committee recommended the unique "disaster relief" program Monday even as city staff noted Hamilton was just one of several Canadian cities that grappled with record-setting frozen pipe problems this winter.

**Compassionate Grant**



**Water Bill Adjustments**



**Internal Service Thawing**

## Winter 2015 - Financial Impacts

- External Thawing - \$ 1.9 M
- Internal Thawing - \$ 300 K
- Water Delivery - \$ 73 K
- House to House Connections - \$41 K
- Total Financial Impact - \$ 2.3 M

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# ***Winter 2016***



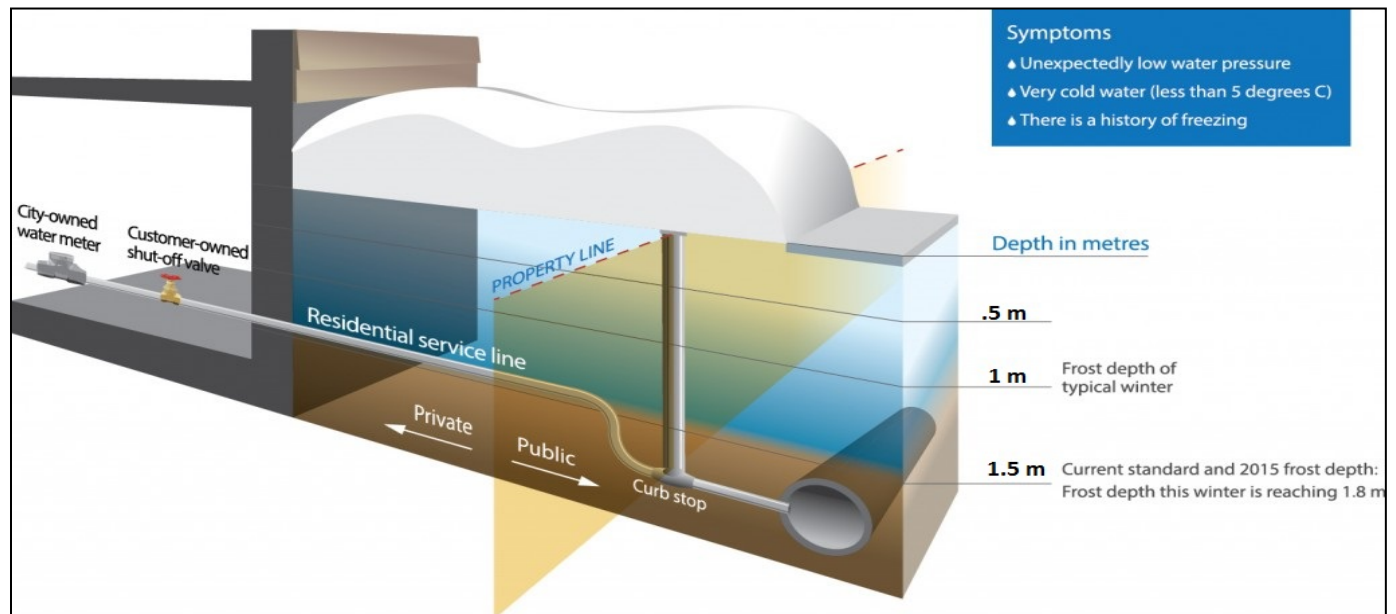
# Winter 2016 - Typical Frozen Service Scenario

- Under normal winter temperatures most water services freeze on the private portion
  - Uninsulated basements
  - Water service located in cold cellar
- If extreme cold temperatures persist the freeze may migrate towards the publicly owned portion
  - Shallow depth
  - Utility conflicts

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# Winter 2016 - Outreach and Education

- Outreach materials
  - Bill inserts
  - Media releases
  - Web content including online reporting
  
- Educational videos
  - Preparing for winter
  - House to house program

- Community
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## Prepare for winter

Follow these steps to reduce the risk of frozen pipes:

- Seal air leaks in your home and garage.
- Install insulated pipe sleeves, UL listed heat tape or heat cables (found at your local building supply and home improvement stores) on exposed pipes in unheated areas of your home such as crawl spaces, cold cellars, basements, attics, storage rooms and garages.
- Disconnect and drain all outdoor hoses.
- Shut off and drain all outdoor taps.
- Consider the [Service Line Warranties of Canada](#) warranty program.

## What to do if your pipes are frozen

If the pipes in your home have frozen, you can attempt to thaw those pipes yourself following the steps below:

1. Turn on a tap in the basement. If you are successful in thawing your pipes, water will begin flowing from the tap.
2. Locate the water shut-off valve in your home. If the pipe you are attempting to thaw bursts or you are successful in thawing the pipe, it may leak and potentially cause a flood. In this case, you will need to shut off the water to your house using the water shut-off valve until the leaky pipe is fixed.
3. Use a blow dryer or space heater on the exposed pipe near the water meter for one or two hours. Alternatively you can try placing a warm towel or rag around the pipe. **Do not use an open flame as you risk bursting pipes, causing the pipe joints to come apart or even setting your house on fire.**

## Reporting frozen pipes

Before reporting a frozen pipe, the City recommends that you:

- Contact a plumber to thaw your frozen pipe or verify the location of the frozen pipe.
- Contact Service Line Warranty of Canada (SLWC) if you've purchased the additional [Water Line Warranty](#).

If the plumber is unable to thaw your frozen pipe you will need to complete and submit the online [Frozen Services Reporting Form](#). Submissions will be reviewed during business hours Monday to Friday 8:30 am to 4:30 pm.



## Winter 2016 - Outreach and Education

- 225 properties who experienced frozen water service in Winter 2014 were notified to run water (75% success rate)
- Database updated to include more than 800 properties
- Historical billing

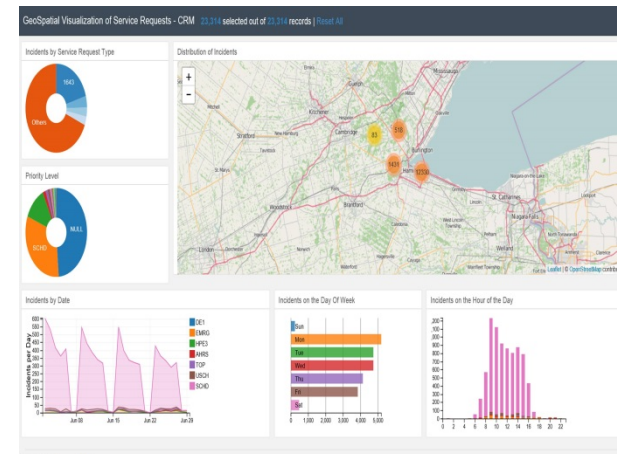
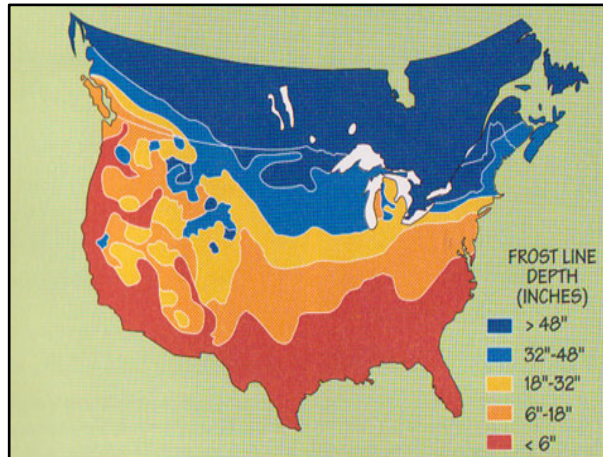


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# Winter 2016 - Process Flow

- Hansen 8 - for all frozen service information
- Frost depth monitoring
- Enhanced mapping

- Community
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- Finance



## Winter 2016 - Contracts

- Internal thawing and house to house program
- External thawing
- Water delivery

- Community
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## Winter 2016 - Advancements

- Electrical thawing equipment
- Valve maintenance trailers
- Depth of service for new development
- Ongoing discussions with neighbouring municipalities and agencies



**Electrical Thawing**



**Valve Maintenance Trailer**

- Community
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# Questions ?





- Community
- People
- Processes
- Finance



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<https://www.youtube.com/watch?v=Khi3Fr2gmco&feature=youtu.be>

