

# TIMBERLEA SEWER BACKUPS

## FINANCIAL SUPPORT FOR IMPACTED HOMEOWNERS

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# TIMBERLEA SEWER BACKUPS

## FINANCIAL SUPPORT FOR IMPACTED HOMEOWNERS

- Technical Investigation Findings
- Liability
- Recommendation

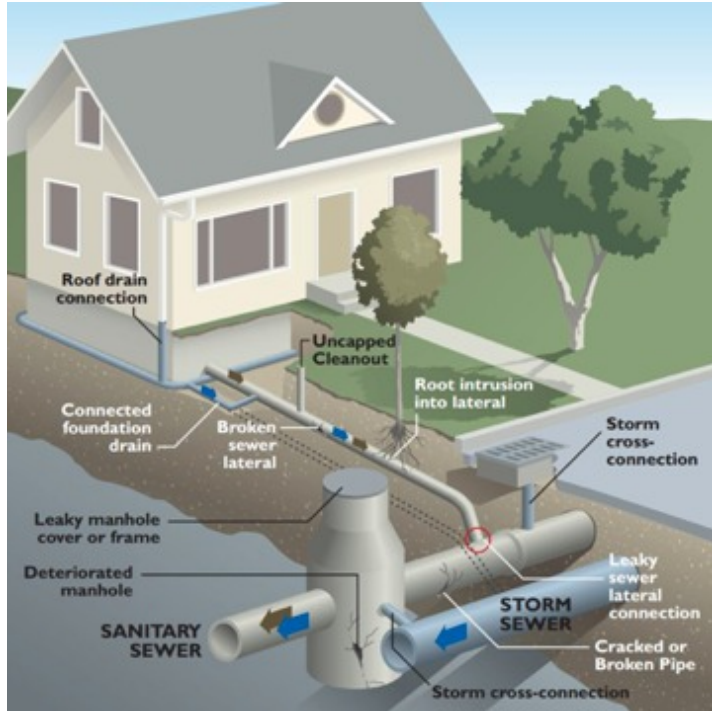
# TIMBERLEA SEWER BACKUPS

## TECHNICAL INVESTIGATION FINDINGS

- Timberlea B's sanitary sewer system meets the design standards and construction practices of the time
- A third pipe system was contemplated for Timberlea, however these systems were noted as “virtually unknown in Western Canada at the time”
- Similar issues occurred in West Thickwood Heights in 1990 – the issues were mitigated and standards updated but there is no record of a recommended study for Timberlea

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## TECHNICAL INVESTIGATION FINDINGS



- Inflow of storm water into the sanitary system through weeping tile and roof drain connections

Video source: [Inflow and Infiltration Reduction Program - City of Columbia, Missouri](#)  
Author: [Stormwater Education Program: City of Columbia Missouri](#)  
Published on Jan 15, 2013

The background of the slide features a stylized illustration of a city street scene. In the upper left, there are two soft, grey clouds. Below them, a blue ampersand (&) is prominently displayed, serving as a design element. In the background, a white car is visible on a street that recedes into the distance. The overall color palette is muted, with greys, blues, and a light tan background.

# Inflow & Infiltration

*produced by Dustin Hawkins*

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## TECHNICAL INVESTIGATION FINDINGS

- The sanitary sewer systems constructed in the older areas of Timberlea, which followed the design standards and construction practices at the time, have insufficient capacity to meet current performance expectations during storm events.

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## TECHNICAL INVESTIGATION FINDINGS

- The July 12, 2015 rain event was comparable to a 1 in 50 year severity based on rainfall records at the airport, and was quite likely the most severe thunderstorm rain event experienced in Fort McMurray since the Timberlea area was first developed.
- The July 12, 2015 rain event overwhelmed the capacity of the sanitary system and the capacity of pumps being used for construction storm water management on site.

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## TECHNICAL INVESTIGATION FINDINGS

- The construction storm water management practices at the time of the storm likely:
  - accelerated the onset of basement flooding in the vicinity of the construction site at the open trench, and
  - may have prolonged the total duration of surcharge conditions (overwhelming the physical capacity of the line) for some homes by up to one hour.



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## TECHNICAL INVESTIGATION FINDINGS

- Detailed simulation modeling of the sanitary sewer system, without any construction effects, was completed for the July 12, 2015 event. It determined:
  - surcharge conditions for properties in the Timberlea B's area where actual backups occurred, and
  - confirmed the storm event of July 12, 2015 was so severe it would have caused widespread sewer backups regardless of any construction impacts.

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## LIABILITY

- The engineering investigation has not uncovered or identified any negligence of the Municipality, or of its contractor, that is causally linked to the damages suffered by residents.
- The Municipality's insurer has not yet formally advised the Municipality of its own conclusions with respect to liability, but it is highly likely that the insurer will agree with the conclusions outlined in the "Timberlea Sewer Backups Internal Investigation and Analysis Report".

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## RECOMMENDATION

- THAT the Municipality not provide financial assistance for residents affected by the July 12, 2015 sewer backup flooding in the Timberlea area.