



Hamilton

Corrosion Control Program Update - Woodward Drinking Water System

September 17, 2018

AGENDA

- Hamilton Corrosion Control Journey
- Health Benefits
- Implementation Update
- Financial Update
- Outreach Plan
- What to Expect



HAMILTON'S CORROSION CONTROL JOURNEY

2007 Health Canada's proposed corrosion control guideline released

May 2007 MOE issues sampling order to 35 municipalities in Ontario

July 2007 MOE releases Schedule 15.1 of O. Reg. 170/03

2008-2009 Lead exceedances in Hamilton triggers Corrosion Control Plan

December 2009 MOE releases Guidance Document for Preparing Corrosion Control Plans for Drinking Water Systems

Nov 16 2015 - Council Approves Corrosion Control Plan (Orthophosphate addition)



2009-2010 Hamilton's Corrosion Control Plan

2011-2014 Pipe loop testing

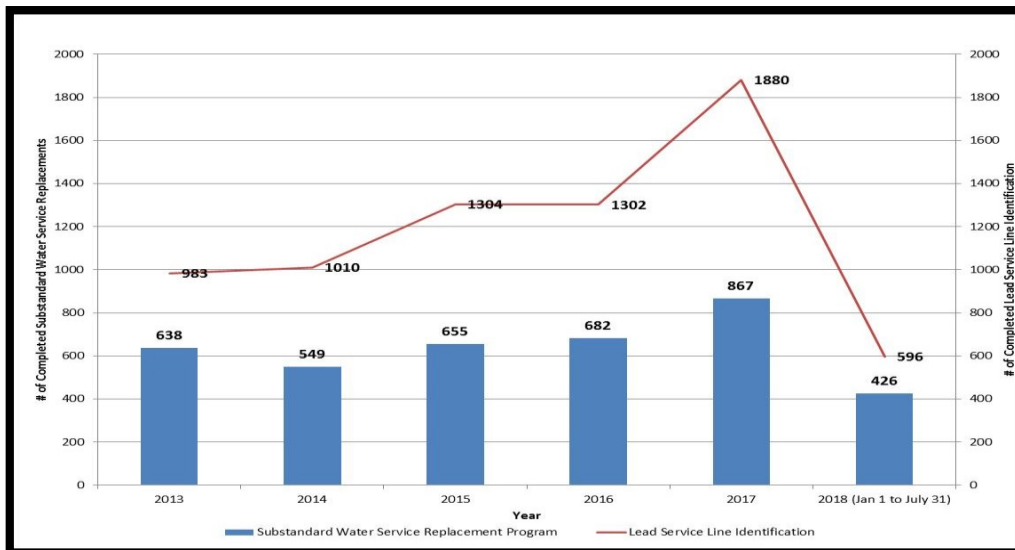
2016-2018 Baseline monitoring program

2015-2017 Studies in support of corrosion control implementation:

- Pipe loop peer review
- Leap profile testing
- Monitoring plan
- Communications plan
- Coagulation optimization study
- Distribution system best practices study
- Unidirectional flushing pilot study

EXISTING PROGRAMS FOR LEAD

- Active participation in sub standard and lead service line program
- 600 + filters handed out to residents
- Lead awareness and outreach (mailings and brochures)



HEALTH BENEFITS

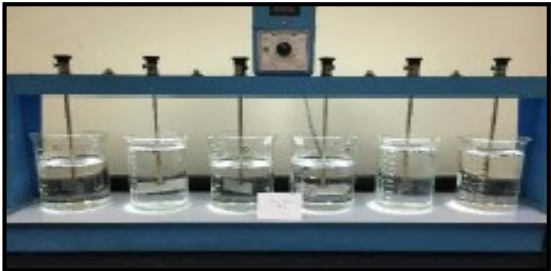
- Consumption of lead is harmful to health, especially in infants, young children and pregnant women (impacts to fetus)
- Taking action to decrease lead concentrations in tap water across the community will benefit Hamilton residents
- Orthophosphate is a proven method of reducing lead in drinking water and there are no known adverse health effects



IMPLEMENTATION UPDATE

FEATURE/ITEM	TIMELINE
Design and construction	On-going Completion Q4 2018
Implementation and Contingency Planning Including pre-monitoring	COMPLETE
Outreach - Residential & Industrial users	Q1 2018 – On-going
Flush the distribution system	Q2 2018 - On going
Update to surrounding municipalities supplied by Hamilton - Haldimand and Halton	Q3 2018
Regulatory Permitting - Update ECA	Q4 2018
Implement corrosion control - Post implementation Program	Q4 2018
Lead Service Line Replacement Program	On-going

IMPLEMENTATION UPDATE

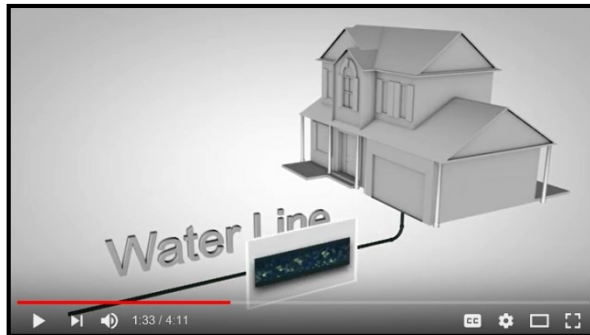
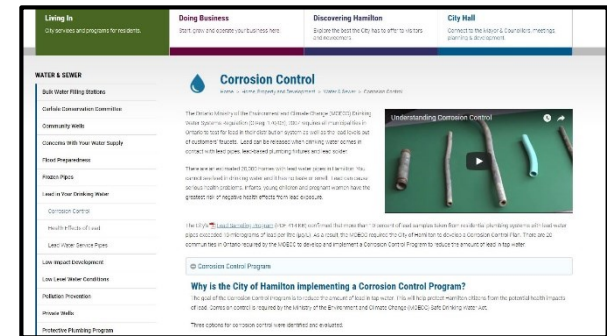
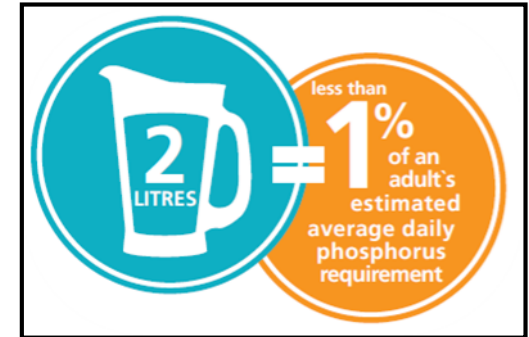


- Capital Construction - \$5 Million
(Clean Water and Wastewater Fund project)
- Pre-implementation cost (2016-2018)
 - \$97,000 annually for 1 temporary FTE (for a period of 2 year)
 - \$10,000 annually for laboratory analysis
- Post-implementation annual operating costs
 - \$300,000 annually for chemical addition
 - \$10,000 annually for laboratory analysis



OUTREACH PLAN

- Lead Awareness Campaign
 - Targeted mailings
 - Bus shelter advertising
- Online
 - Website
 - Informational videos
 - Frequently asked Questions
- Presentations to the Industrial Sector



- Orthophosphate dosage begins in November 2018
- Potential for localized Water Quality issues
 - Cloudy water (Milky-white)
 - Rusty water
 - Possible taste and odour complaints
- The system-wide approach will protect Hamilton residents from lead in drinking water (Woodward Drinking Water System)



Hamilton

QUESTIONS ?