



CMOM Implementation- After the Deadline

February 23, 2017



Briefly Today

- Cured In Place Pipe
- Methods for Roots
- Mercury, under cover
- Copper, in house
- Fats, Oils, Grease
- Tid Bits



Some Goals are met, Some aren't

- CIPP or Replacement
 - originally set for reducing I/I
 - Actually shaves off the peak
 - Found to prevent pipe collapse
 - Smoother surface, hope is to get flows back to original design
 - Budget annual amount for collection system
 - Not the answer for all problems



Roots, Roots Go Away

- Annual Jetting
- Annual root cutting
- Root Kill
- CIPP/grout
- Remove trees in the Right of Way



Mercury

- **Knowns**
 - Dental offices were all converted to Amalgam separators in 2011
 - Hospital and Marshfield Clinic do not use any mercury
 - Public school system
 - Industry
 - Thermometer/mercury disposal sites
 - Only one other source of mercury



Mercury

- Challenges

- Historically UW has used mercury for teaching
- When we cleaned sanitary mains down from the UW, the levels went up
- As a heavy element, it settles in every joint and crack in the concrete pipe
- In spring of 2015 and 2016, CIPP lined the smaller pipe up to lines with larger flow
- Mercury dropped to lowest levels ever, limit of $1.3 \mu\text{g/l}$, 2016 ave. of $0.66 \mu\text{g/l}$



Fats, Oils, Grease

- Plumbing inspector conducts annual inspection
 - Check maintenance reports
 - Make sure piping is connected properly
 - Expansion is time to upgrade
- All grease interceptors are not created equal
 - ASME, ASTM, PDI, CSA
 - Peak Flow rate, globule size, fat production, total daily flow.

Copper, In house issue

- WWOA Clarifier, December 2015
- Too focused on the collection system
- Abigail Cantor to the rescue
- Actually an in-house problem
- Polyethylene jugs and tubing



No Wipes Down the Pipes

- Started by the City of Beloit
- Great public awareness avenue
- Annual or semi-annual visits
- http://ci.marshfield.wi.us/departments/public_works/wastewater_utility/index.php





Tid Bits

- Look Ahead
 - Pick off one issue at a time
 - Every year the collection system gets one year older
 - If you can't solve an issue, Have a method to record it.
 - Update the CMOM every year
 - Attend Collection Seminar
 - Watertown - June 8
 - Marshfield - July 27

Questions or Comments

