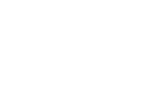
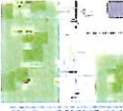
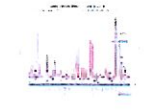
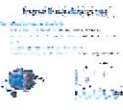


City of Appleton
Sanitary Lateral
Replacement Program

**Proposed Pilot Project
Carpenter Street - 2018**

City of Appleton I/I Overall Sewer Basin Ratings 2012 - 2016



Legend

Motorshod

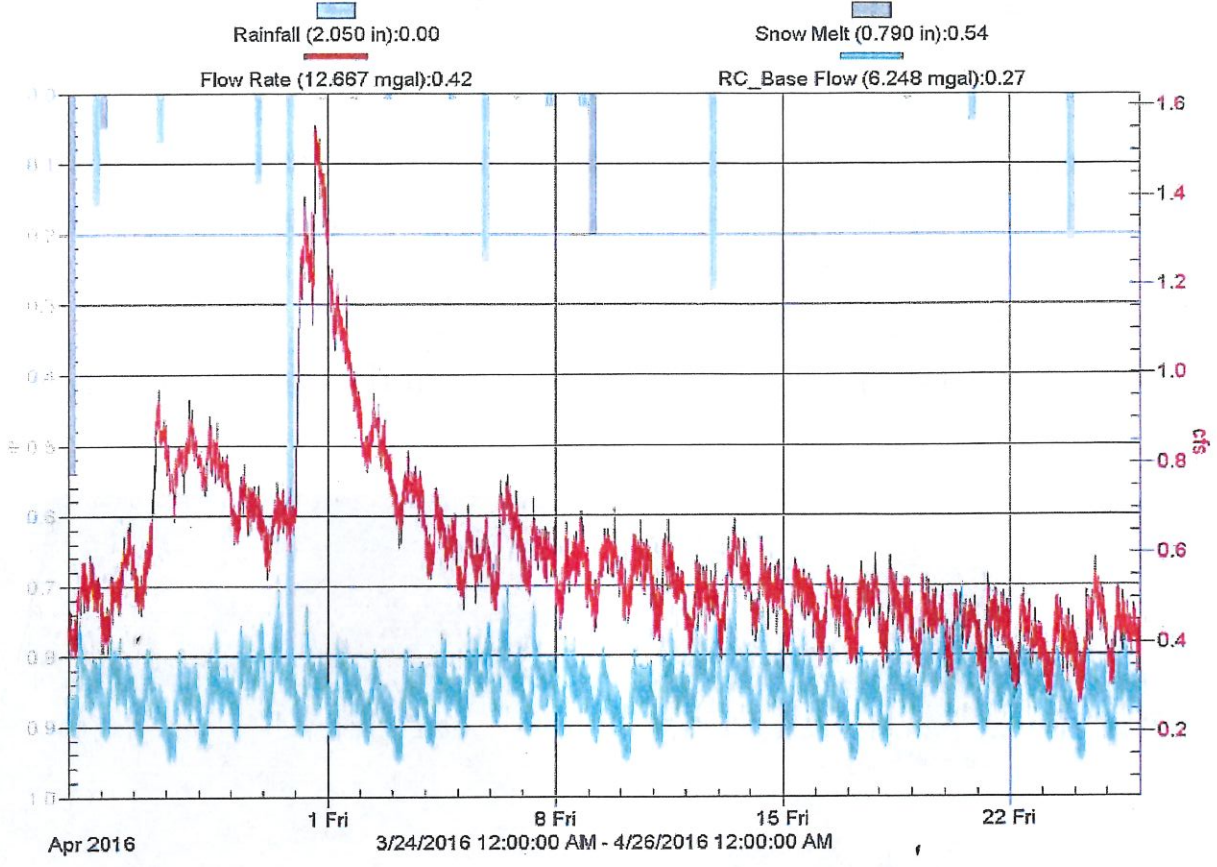
- High
- Moderate-High
- Moderate
- Low



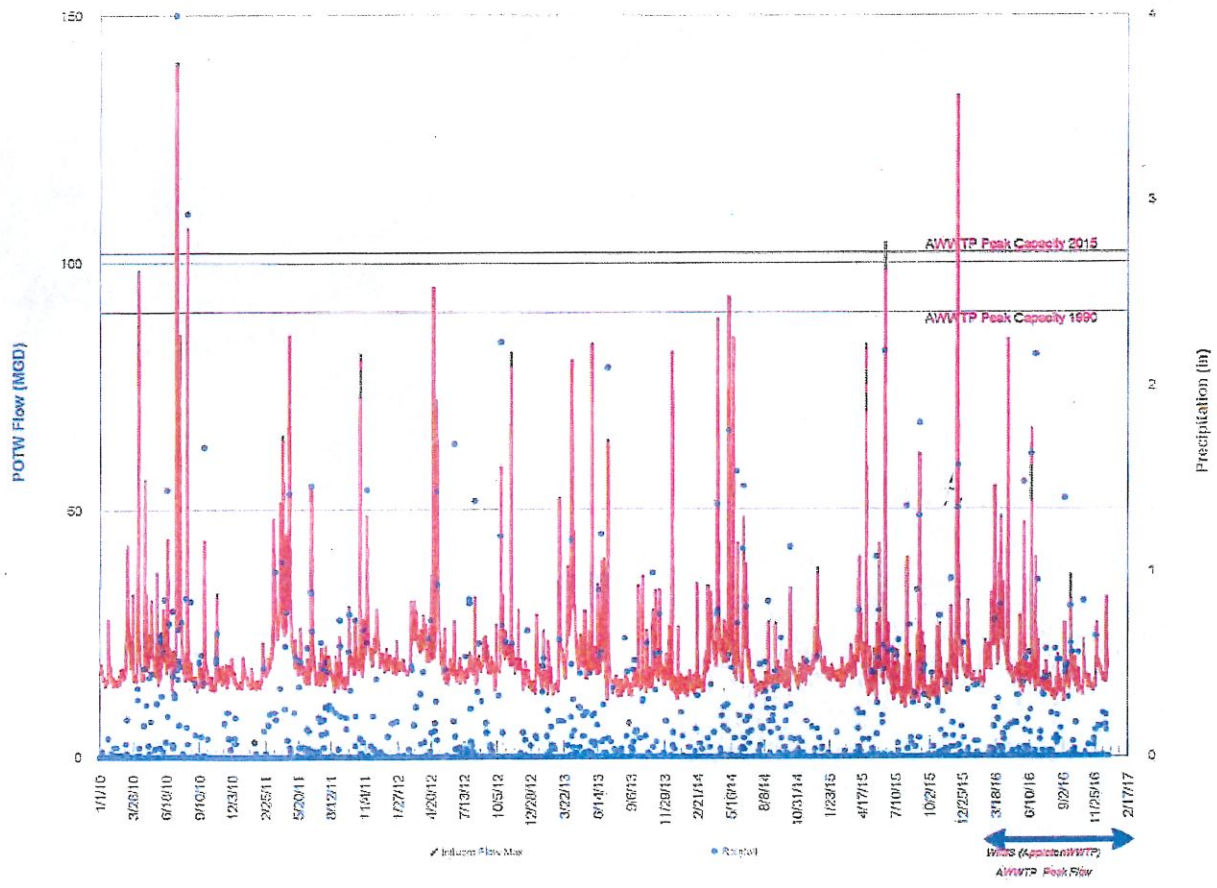
2012-2016 Flow Monitoring I/I Quantification
Overall Priority Ratings



2016 Appleton Flow Monitoring (M-60) Lutz Dr - 24in - March Storm Analysis



AWWTP Influent Maximum Flow 2010-2016



Dyed Water Testing and Televising

- Selected areas with high I/I based on flow analysis
- Simulated rainfall; flooded storm sewers with dyed green water
- Televised sanitary sewers; recorded green water leakage into the sewer system
- Determined leakage source and severity
- Documented defects by type, location and estimated flow rate



2016 Dye Testing Summary

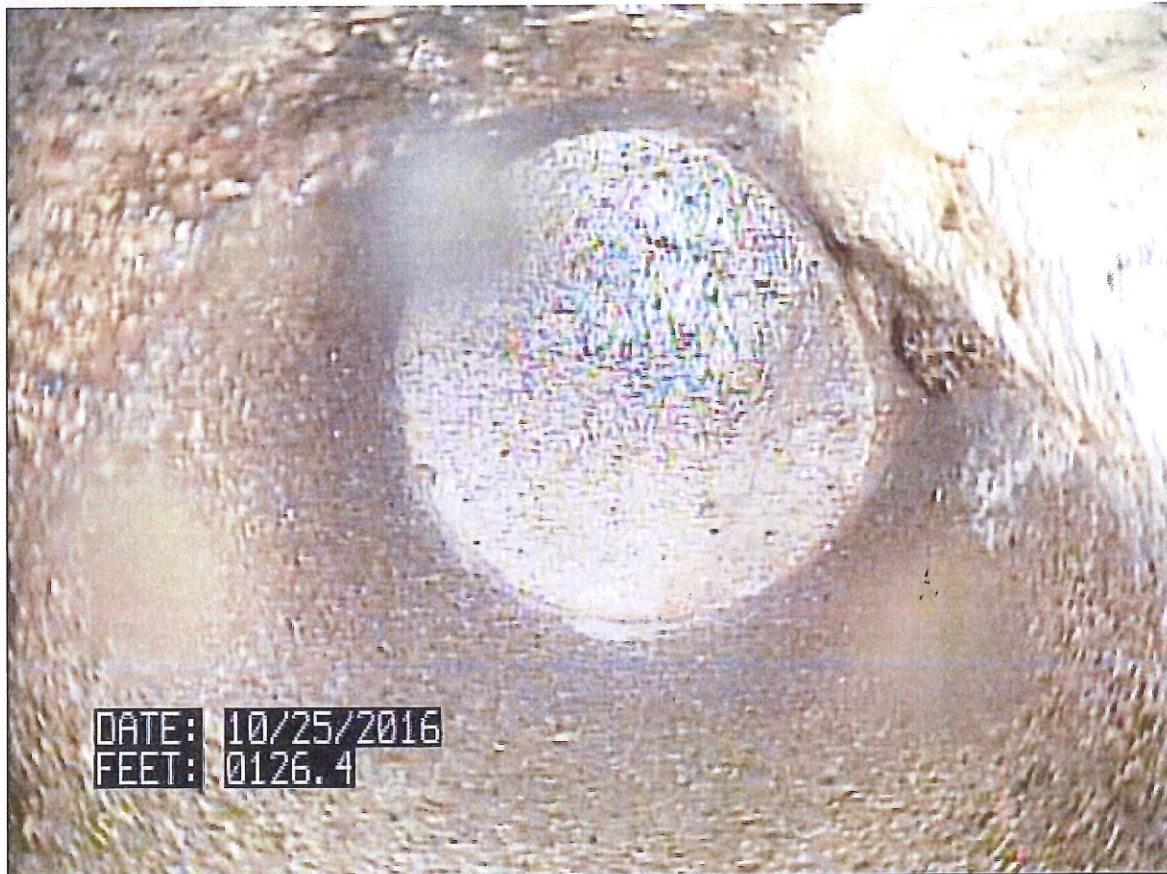
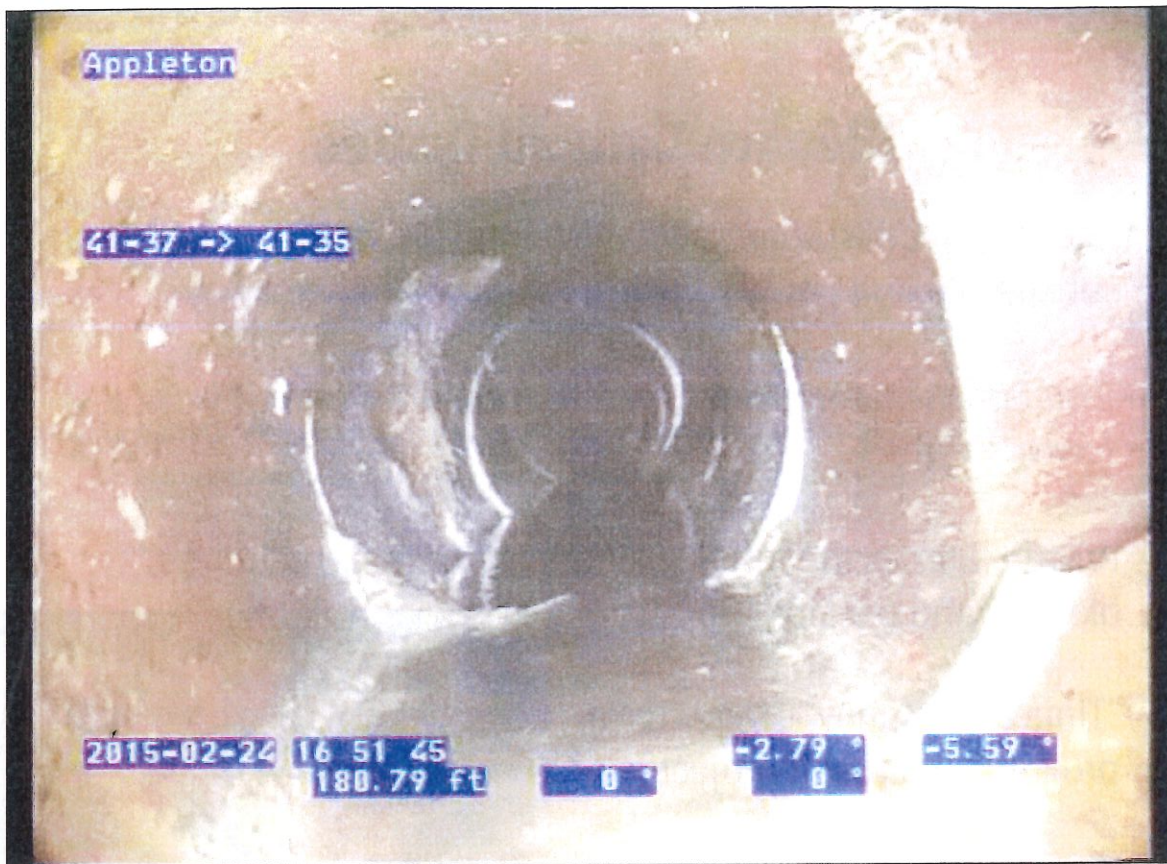
Mainline Sewers

- 14,316 lf of sewer tested in October 2016
- 56 sanitary sewer leaks documented
- Estimated total flow rate of 67 gpm
- Found and documented collapsed pipe section (Promptly repaired)



Private Sewer Laterals

- 61 leaking private sewer laterals documented
- Estimated total flow rate of 220 gpm



Private Lateral Issues

- Clearwater infiltration and inflow from laterals is substantial and growing; the problem will not go away
- Total private lateral length is often equal to total City sewer length
- Private laterals are rarely maintained or replaced unless blocked and backing up
- "Time and Money" - requires a program, not just a project
- Common challenge for many neighboring and peer cities



Sanitary Lateral Replacement Program – Talking Points

Update on Community Discussions

- Every community doing it a little differently
- Some bids (lead services) coming in too high so communities not awarding bids
- Village of Kewaskum sanitary lateral program very similar to what we are proposing (except they are charging back 100% to property owners)

Estimated Program Cost

	City Share	Property Owner Share
Current Program (50/50 cost share in street only) (No private lateral replacement)	\$1,449	\$1,449
Proposed Program - full replacement (Owner volunteers to have private side replaced)	\$2,590	\$990
Proposed Program - street portion only (Owner does not agree to have private side replaced)	\$0	\$2,880

Program Schedule

- 2017
 - Property owner education/ feedback (for the one pilot program street – we are recommending Carpenter Street which has 40 laterals)
 - Finalize pilot program based on feedback
 - Update Assessment Policy and Municipal Code accordingly
- 2018
 - Property owner commitment letters signed
 - Televised sanitary laterals accordingly
- 2019
 - Bid contract based on commitments (pipe bursting) and non-commitments (open-cut)
 - Review Pilot Program and modify accordingly
- 2020
 - Full Sanitary Lateral Replacement Program Implemented