



Public Works Department

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March 1, 2021

Mike Pinney, PE, Sr. Environmental Engineer

Oregon DEQ – Northwest Region

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RE: 2020 ANNUAL INFLOW & INFILTRATION REPORT

This report provides an annual summary of some of the more important I/I reduction actions the City of Molalla has taken for the 2020 calendar year, in accordance with City's Inflow and Infiltration Assessment and Reduction Plan and NPDES Permit No. 101514.

In 2020 the City replaced the entire sewer line on Patrol Street (1350 linear feet) and its 29 laterals to the Property Lines. The City also cleaned 9727 linear feet, replaced 9 failed sewer laterals in town, brought the number of Grouted Manholes to 105, and reduced I/I at the WWTP measurably again.

Please feel free to contact me (503) 759-0220 if you have any questions.

Regards,

Andy Peters

Operations Supervisor

Cc: Gerald Fisher, Public Works Director

Dan Huff, City Manager

Project/Task	Description & Information
Manhole Inspections and Grouting	<p>The City also completed phase 2 of its Manhole Grouting Program, bringing the observed manhole infiltration to the following condition: Grouted (105) (See Map at the end of this report) Major Infiltration (14) Minor Infiltration (4)</p>
System Assessment	<p>The cycle of system assessment ended in 2017 with the City's Smoke Testing, and the comprehensive Flow Poking assessment in 2018. Efforts in 2020 centered on continuing to make repairs found by analyzing CCTV results and actively digging up leaks, as described in the remainder of this report.</p>
Sewer Line Cleaning	<p>Sewer CMOM Cleaning in 2020 was conducted as follows:</p> <p>WO# 11989; Problem Sewers and Dead-End Mains (NW quadrant) COMPLETED 10/29/2020</p> <ul style="list-style-type: none"> • Industrial Way • Storey Dr • Andrian • Kalugin • The Bypass line at Lynn Ln • Toliver & Leroy • Trinity • Wedgewood • Kae Ct • W. Heintz • Carol Ct • West Lane • Ridings • Prince • Dixon <p>Total: 4437LF</p> <p>WO# 11690; Problem Sewers and Dead-End Mains (SE quadrant) South of Molalla Ave, East of the Union Pacific RR Tracks. COMPLETED 10/1/2020.</p> <ul style="list-style-type: none"> • E. 3rd • Eckart, the Moose Lodge • Hood St • Hood Ct • S. Cole • E 8th • Mathias Ct <p>Total: 2045LF</p> <p>WO# 11689; Problem Sewers and Dead-End Mains (SW quadrant) South of Molalla Ave, West of the Union Pacific RR Tracks,</p>

and South of the 15-inch concrete line that runs from Molalla Ave directly to the WWTP;

COMPLETED 10/1/2020

- Fountain Valley Center (off Industrial Way)
- Commercial -- Done

Total: 600LF

WO# 11480; Clean and maintain Problem Laterals - fall

- Peterkin's downtown (low flows cause backups);

COMPLETED 10/1/2020

Total: 395LF

WO# 11271; Problem Sewers and Dead-End Mains (NE quadrant)

North of Molalla Ave, East of the Union Pacific RR Tracks.

COMPLETED 9/1/2020

- Thunderbird
- Glory
- Bronco
- Miller
- Faurie
- E Christopher
- W Christopher
- Affaltor

Total: 2250LF

Total Sewer Cleaning 2020: 9727 LF

CCTV
Inspections and
Repairs

The City repaired 9 laterals identified:

1. 824 Toliver
2. 416 Metzler
3. 191 Shirley
4. 318 S. Molalla Ave
5. 415 Hart St
6. 701 N Molalla Ave
7. 316 Berkely
8. 207 Francis
9. 115 Toliver

I/I Budget

In Fiscal Year 2020-2021, the City budgeted a total of \$530,000 for infiltration and inflow repairs and to date has spent \$457,000, completing all scheduled repairs. The City is on track to expend all of the funds on repairs before the end of the fiscal year.

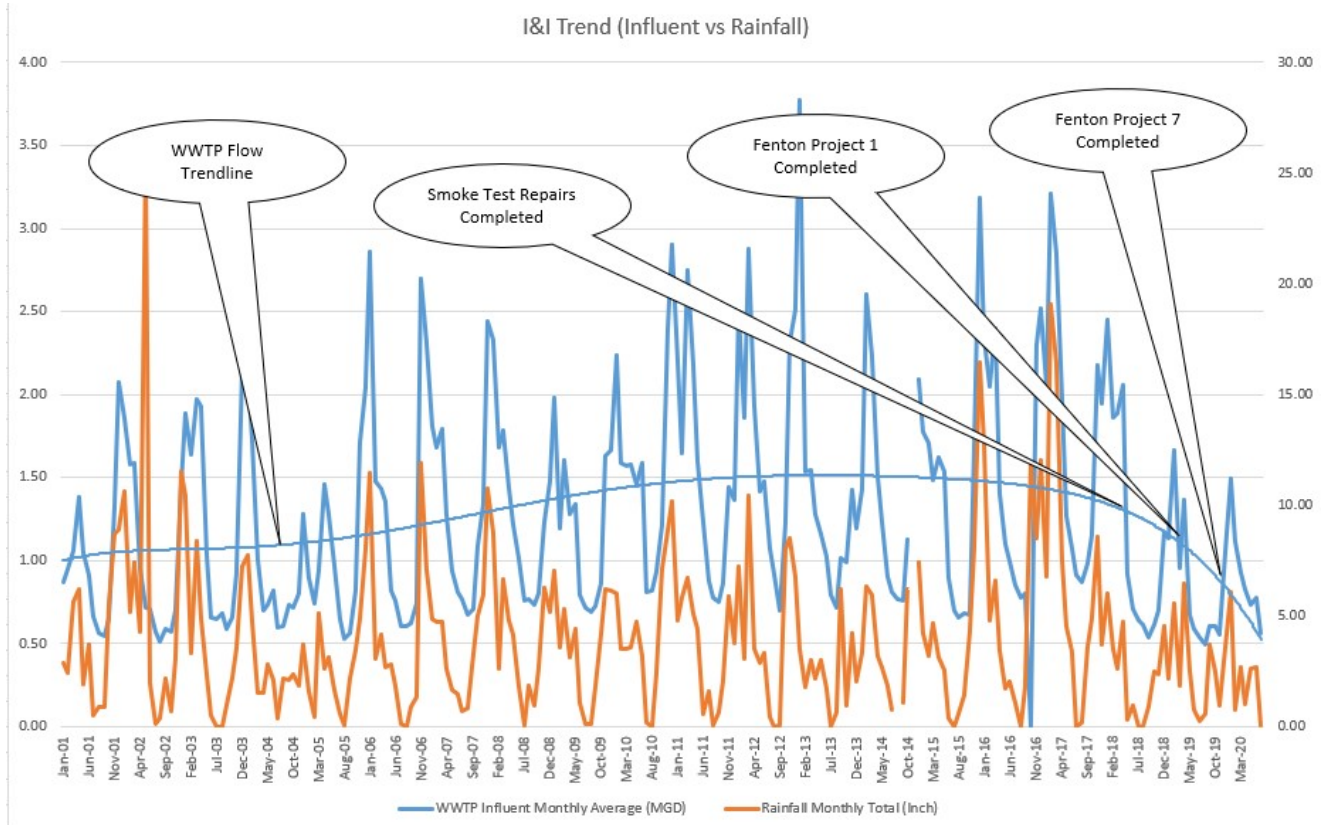
I/I Projects

In 2020 the City replaced the entire sewer line on Patrol Street and all 29 customer laterals to the property lines.

The City also completed project repairs to the lines between BC_A1_2 and BC_A1_3 including manhole grouting and additional TV inspection, resulting significant reduction in I/I as measured by pump hours at South Molalla Lift Station (over 30%). The City is currently considering whether the repairs made qualify as a completion of Phase 1 Project #6 in the 2018 WWFCSMP:

Dec-20						
South Molalla LS						
	Minutes	Gallons	Starts	Average Minutes/Start	Duty Cycle	Rainfall
Pump 1	4,915.00	388,285	1,471	3.34	11.00%	6.04
Pump 2	5,508.00	451,656	1,530	3.6	12.30%	
Both	0		0		0.00%	
Total	10,423.00	839,941.00	3,001.00			6.04
Jan-20						
South Molalla LS						
	Minutes	Gallons	Starts	Average Minutes/Start	Duty Cycle	Rainfall
Pump 1	7,821.00	617,859	2,020	3.87	17.50%	5.99
Pump 2	7,381.00	605,242	2,028	3.64	16.50%	
Both	0		0		0.00%	
Total	15,202.00	1,223,101.00	4,048.00			5.99
31% Reduction in pump run time in month to month comparison						

The City is also able to present a graph of the moving average trendline of WWTP Influent VS Rainfall during a historical period. The City expects to see further improvements during 2021 from the Patrol Street Project, and Manhole grouting performed in 2020.



2021 Sanitary Manhole Infiltration Status

