



Public Works Department

117 N Molalla Avenue
PO Box 248
Molalla, Oregon 97038
Phone: (503) 829-6855
Fax: (503) 829-3676

01/04/20

TO: Pat Heins, Recycled Water Program Coordinator
DEQ Water Quality Division
700 NE Multnomah Street, Suite 600
Portland, OR 97232

FROM: Andy Peters, Operations Supervisor, City of Molalla

CC: Gerald Fisher, Public Works Director, City of Molalla
Jake Ehredt, Lead Operator, City of Molalla
Dan Huff, City Manager, City of Molalla
Mike Pinney, DEQ

RE: MEMORANDUM OF TRANSMITTAL : Recycled Water Annual Report

Attachments: DEQ Form v. 10-26-2018 (6 pages); Edge Analytics lab reports (4 pages)

Notes:

- Description of changes to treatment facilities: ADD 3 SURFACE AREATORS TO POND #1
- Description of changes to processes specific to production of recycled water: NONE
- Weather data: ON FILE
- Results of site inspection reports: ON FILE
- Description of any operational problems (e.g., system upsets, overflows, etc.) and the corrective actions taken: NONE
- Description of changes in the beneficial purpose (e.g., crop changes, water delivery times, supplemental water sources, etc.): NONE
- Location and amount of recycled water used for each beneficial purpose: SEE ATTACHED
- Recycled water volume produced: SEE ATTACHED
- Recycled water characteristics including bacteria and other required monitoring results: SEE ATTACHED
- Results from any site monitoring (e.g., soil monitoring): SEE ATTACHED
- Any planned or anticipated changes to the treatment facility equipment or operations during the next calendar year: NONE
- Description of any proposed or anticipated changes in water reuse operations, including major changes in agricultural practices, such as crops: NONE

Andy Peters

City of Molalla
Public Works Operations Supervisor
(503) 829-6855 x220
Cell: 503-793-0507
apeters@cityofmolalla.com
117 N Molalla Ave
Molalla, OR 97038



Recycled Water Annual Report
Part I: Recycled water production and disposition

A. REPORTING PERIOD

1. This report is for recycled water produced during the calendar year: 2020

B. PERMIT INFORMATION

1. Permit Type (select one): NPDES or WPCF DEQ File No.: 57613
 DEQ Permit No.: 101514 EPA Permit No.:

C. FACILITY INFORMATION

1. Legal name of facility: Molalla Sewer Treatment Plant

Physical address

2. Street Address: 12424 S. Toliver Rd
 City: Molalla State: Or Zip code: 97038

Mailing address Same as physical address.

3. Mailing Address: P.O. Box 248
 City: Molalla State: Oregon Zip code: 97038

Facility Type (check all that apply)

4. Major or Tier 1 facility (design flow of 1 mgd or greater, or serving a population of 10,000 or greater)
 Minor or Tier 2 facility (design flow less than 1 mgd or serving a population less than 10,000)
 Class I wastewater treatment facility (i.e., facility with a pre-treatment program)
 Other, please specify:

D. CONTACT INFORMATION

Responsible official

1. Name: Gerald Fisher Title: P.W. Director
 Email Address: gfisher@cityofmolalla.com Telephone: 503-829-6855
 Mailing Address: P.O. BOX 248
 City: Molalla State: Oregon Zip code: 97038

Recycled water contact Same as responsible official

2. Name: Andy Peters Title: Operations Supervisor
 Email Address: apeters@cityofmolalla.com Telephone: 503-829-6855
 Mailing Address: P.O. BOX 248
 City: Molalla State: Oregon Zip code: 97038

E. RECYCLED WATER TREATMENT PROCESSES

Please indicate the recycled water treatment processes used at your facility (mark all that apply)		
Treatment technology	Filtration technology	Disinfection technology
1. <input type="checkbox"/> Primary Clarifier <input type="checkbox"/> Secondary Clarifier <input checked="" type="checkbox"/> DAF <input checked="" type="checkbox"/> Lagoon <input type="checkbox"/> Membrane reactor <input type="checkbox"/> Trickling filter <input type="checkbox"/> Other:	<input type="checkbox"/> Sand filter <input checked="" type="checkbox"/> Mixed media filter <input type="checkbox"/> Bio-filtration <input type="checkbox"/> Artificial wetland <input type="checkbox"/> Other:	<input type="checkbox"/> Ultraviolet <input type="checkbox"/> Chlorine <input type="checkbox"/> Ozone <input type="checkbox"/> Paracetic acid <input type="checkbox"/> Hydrogen peroxide <input type="checkbox"/> Hypochlorite <input type="checkbox"/> Pasteurization <input checked="" type="checkbox"/> Other: Calcium hypo

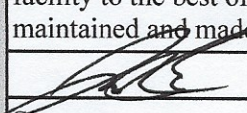
F. RECYCLED WATER SAMPLING and PRODUCTION

Select your facility's regulatory monitoring frequency:					
Water Class	A	B	C	D	Non-disinfected
1. Monitoring frequency	<input type="checkbox"/> Daily/hourly	<input type="checkbox"/> 3/week	<input checked="" type="checkbox"/> 1/week	<input type="checkbox"/> Once per month	<input type="checkbox"/> As specified in permit
Parameters	Total Coliform (daily) Turbidity (hr)	Total coliform	Total coliform	<i>E. coli</i>	As Specified in permit
Please indicate total volume of each class of recycled water produced at your facility.					
2. Total quantity produced (gal)			114.091		

G. SUMMARY OF ATTACHMENTS

1.	Information required with some annual reports:	
	<input type="checkbox"/> Additional copies of tables in Part II for all recycled water produced during the calendar year. <input checked="" type="checkbox"/> Laboratory reports showing analytical results only. <u>NO LAB QA/QC</u>	
2.	Example of documentation held by the permittee and available upon request:	
	<input checked="" type="checkbox"/> Additional land application site information. <input checked="" type="checkbox"/> Daily irrigation and records.	<input type="checkbox"/> Nitrogen loading calculations <input checked="" type="checkbox"/> Daily or hourly sampling results

H. SIGNATURE OF LEGALLY AUTHORIZED REPRESENTATIVE

I certify that the information in this report is true, correct and representative of the recycled water produced at my facility to the best of my knowledge and belief. Information and records used or referenced with this report will be maintained and made available to the Oregon Department of Environmental Quality on request.		
	Lead Operator	1-5-2021
Signature	Title	Date
Print Name: Jake Ehredt		



Recycled Water Annual Report
Part II: Sampling and Monitoring Summary

I. RECYCLED WATER CLASSIFICATION															
	Month	Turbidity (NTU)				Total Coliform (organisms/100mL)					E. coli (organisms/100mL)				
		Max 24hr Mean	Avg 24 hr mean	Max	Ave	# of samples	Max 7day median	Avg 7day median	Max	Ave	# of samples	Max 30day log mean	Avg 30day log mean	Max	Ave
1.	Jan														
2.	Feb														
3.	Mar														
4.	Apr														
5.	May			1.7	0.6	9	3	2.3	34	<1					
6.	Jun			0.9	0.4	30	<1	<1	74	<1					
7.	Jul			0.3	0.4	31	23.3	4.0	721.5	63.8					
8.	Aug			0.6	0.4	31	<1	<1	641	161					
9.	Sep			1.7	0.9	23	194	31.9	194	64					
10.	Oct														
11.	Nov														
12.	Dec														
13.															
14.															
15.	Annual														
Attach additional pages as needed to report all sampling.															

** Please attach laboratory report showing sample results only. No lab QA/QC.

J. RECYCLED WATER CHARACTERIZATION

	Month	pH (SU)			Residual Cl (mg/L)				Sodium (mg/L)				
		# of samples	Min	Max	Ave	# of samples	Min	Max	Ave	# of samples	Min	Max	Ave
1.	Jan												
2.	Feb												
3.	Mar												
4.	Apr												
5.	May	2	7.4	7.7	7.6	11	0.4	2.1	0.8				
6.	Jun	13	6.3	7.6	7.4	30	0.16	1.40	0.66				
7.	Jul	10	7.5	7.8	7.6	31	0.17	1.83	0.92				
8.	Aug	10	7.7	8.1	7.8	23	0.68	5.10	1.83				
9.	Sep	8	6.7	7.7	7.4	23	0.69	4.99	2.15				
10.	Oct												
11.	Nov												
12.	Dec												
13.													
14.													
15.	Annual												
Attach additional pages as needed to report all sampling.													

**** Please attach laboratory report showing sample results only. No lab QA/QC.**

K. RECYCLED WATER NUTRIENT

Month	Nitrogen TKN (mg/L)			Nitrogen NO2 + NO3 (mg/L)			Ammonia NH3-N (mg/L)			Phosphate PO4 (mg/L)			Potassium K (mg/L)		
	# of samples	Max	Ave	# of samples	Max	Ave	# of samples	Max	Ave	# of samples	Max	Ave	# of samples	Max	Ave
Jan															
Feb															
Mar															
Apr															
May															
Jun	1	26.70	26.70	1	1.64	1.64	1	25.7	25.7	1	0.75	0.75			
Jul															
Aug															
Sep	1	19.00	19.00	1	2.24	2.24	1	19.20	19.20	1	0.35	0.35			
Oct															
Nov															
Dec															
Annual															

Attach additional pages as needed to report all sampling.

**** Please attach laboratory report showing sample results only. No lab QA/QC.**

L. RECYCLED WATER APPLICATION

Month	Site Name: North Coleman				Site Name: South Colman				Site Name: Cemetery				Site Name: WWTP			
	Class: A				Class: A				Class: A				Class: A			
	Use or Crop: Pasture				Use or Crop: Pasture				Use or Crop: Ornamental				Use or Crop: Ornamental			
	Area (acres): 270				Area (acres): 163				Area (acres): 3.4				Area (acres): 8.1			
	Agronomic rate: 3.6 in/ac or 1.9 in/ac				Agronomic rate: 3.6 in/ac or 1.9 in/ac				Agronomic rate:				Agronomic rate:			
	Soil moisture monitoring: Moisture blocks				Soil moisture monitoring: Moisture blocks				Soil moisture monitoring: Moisture blocks				Soil moisture monitoring: Moisture blocks			
	Additional N sources: 56 lb-N/acre				Additional N sources: 57 lb-N/acre				Additional N sources: 57 lb-N/acre				Additional N sources: 55 lb-N/acre			
	# of days discharging	Total Volume applied	Ave Daily Loading	Max Daily Loading	# of days discharging	Total volume applied	Ave Daily Loading	Max Daily Loading	# of days discharging	Total Volume applied	Ave Daily Loading	Max Daily Loading	# of days discharging	Total Volume applied	Ave Daily Loading	Max Daily Loading
		gal	in	in		gal	in	in		gal	in	in		gal	in	in
Jan																
Feb																
Mar																
Apr																
May	10	6.730	0.1	0.1	9	3.215	0.1	0.1								
Jun	29	19.375	0.1	0.1	20	7.968	0.1	0.1								
Jul	30	24.580	0.1	0.1	21	9.881	0.1	0.1	4	0.513	0.1	0.8	4	0.259	0.1	0.3
Aug	26	17.466	0.1	0.1	17	9.462	0.1	0.1								
Sep	19	11.206	0.1	0.2	7	4.208	0.1	0.2								
Oct																
Nov																
Dec																
Annual																

Attach additional pages as needed to report all sites.

$$\text{Daily Loading (inches)} = \frac{\text{Volume Applied (gallons)}}{\text{Area (acres)} \times 27,152 \left(\frac{\text{gallons}}{\text{acre inches}} \right)}$$



Burlington, WA Corporate Laboratory (a)
1620 S Walnut St - Burlington, WA 98233 - 800.755.9295 • 360.757.1400

Bellingham, WA Microbiology (b)
805 Orchard Dr Ste 4 - Bellingham, WA 98225 - 360.715.1212

Portland, OR Microbiology/Chemistry (c)
9150 SW Pioneer Ct Ste W - Wilsonville, OR 97070 - 503.682.7802

Corvallis, OR Microbiology/Chemistry (d)
1100 NE Circle Blvd, Ste 130 - Corvallis, OR 97330 - 541.753.4946
Bend, OR Microbiology (e)
20332 Empire Blvd Ste 4 - Bend, OR 97701 - 541.639.8425



Data Report

Client Name: Molalla, City of WWTP
12424 S. Toliver Rd.
Molalla, OR 97038

Reference Number: **20-20712**
Project: Molalla WWTP

Report Date: 7/6/20

Date Received: 6/24/20

Approved by: bj,bsp,jal,jdn

Authorized by:

Thanh B Phan
Lab Manager, Portland

Sample Description: City of Molalla - E.P.S.										Sample Date: 6/24/20 11:15 am		
Lab Number: 39643 Sample Comment:										Collected By: James Clifton		
CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Lab	Analyzed	Analyst	Batch	Comment
E-10140	OIL AND GREASE	ND	2.5	1.3	mg/L	1.0	1664	a	7/2/20	AJW	1664_200630A	
7664-41-7	AMMONIA-N	25.7	0.100	0.06	mg/L	10.0	350.1	a	6/26/20	BSP	350.1_200626	
E-10264	TOTAL KJELDAHL NITROGEN	26.7	2	0.16	mg/L	10.0	351.2	a	7/1/20	BSP	351.2_200701	
E-10128	TOTAL NITRATE/NITRITE	1.64	0.01	0.0014	mg/L	1.0	SM4500-NO3 F	c	6/24/20	JAL	cn03_200624	
7723-14-0	TOTAL PHOSPHORUS	0.748	0.100	0.043	mg/L	10.0	SM4500-P F/SM4500-P B(5)	a	6/26/20	BSP	TPHOS_200626	

Sample Description: City of Molalla - Pond #2										Sample Date: 6/24/20 11:00 am		
Lab Number: 39644 Sample Comment:										Collected By: James Clifton		
CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Lab	Analyzed	Analyst	Batch	Comment
E-10106	5-Day BOD Test	23	2		mg/L	1.0	SM5210 B	c	6/29/20	JDN	pbod_200629	

Sample Description: City of Molalla - After DAF										Sample Date: 6/24/20 11:00 am		
Lab Number: 39645 Sample Comment:										Collected By: James Clifton		
CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Lab	Analyzed	Analyst	Batch	Comment
E-10106	5-Day BOD Test	26	2		mg/L	1.0	SM5210 B	c	6/29/20	JDN	pbod_200629	

Sample Description: City of Molalla - After Filter										Sample Date: 6/24/20 11:00 am		
Lab Number: 39646 Sample Comment:										Collected By: James Clifton		
CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Lab	Analyzed	Analyst	Batch	Comment
E-10106	5-Day BOD Test	23	2		mg/L	1.0	SM5210 B	c	6/29/20	JDN	pbod_200629	

Sample Description: City of Molalla - E.P.S.										Sample Date: 6/24/20 11:00 am		
Lab Number: 39647 Sample Comment:										Collected By: James Clifton		
CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Lab	Analyzed	Analyst	Batch	Comment

Notes:

ND = Not detected above the listed practical quantitation limit (PQL) or not above the Method Detection Limit (MDL), if requested.
PQL = Practical Quantitation Limit is the lowest level that can be achieved within specified limits of precision and accuracy during routine laboratory operating conditions.
D.F. - Dilution Factor

If you have any questions concerning this report contact us at the above phone number.

Form: mult_or.rpt



Data Report

E-10106 **5-Day BOD Test** 24 K2 2 mg/L 1.0 SM5210 B c 6/29/20 JDN pbod_200629

Notes: _____

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Data Report

Client Name: Molalla, City of WWTP
12424 S. Toliver Rd.
Molalla, OR 97038

Reference Number: **20-32468**
Project: Molalla WWTP

Report Date: 10/1/20

Date Received: 9/16/20

Approved by: bj,bsp,jdn

Authorized by:

Thanh B Phan
Lab Manager, Portland

Sample Description: City of Molalla - E.P.S.	Sample Date: 9/16/20 8:45 am
Lab Number: 61544	Collected By: James Clifton
Sample Comment:	

CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Lab	Analyzed	Analyst	Batch	Comment
NA	TOTAL NITROGEN	21.2	1.0		mg/L	1.0	<SUM>	a	9/30/20	BSP	TN_200930	
7664-41-7	AMMONIA-N	19.2	0.100	0.06	mg/L	10.0	350.1	a	9/28/20	TJB	350.1_200928	
E-10264	TOTAL KJELDAHL NITROGEN	19.0	2	0.16	mg/L	10.0	351.2	a	9/30/20	TJB	351.2_200930	
E-10128	TOTAL NITRATE/NITRITE	2.24	0.01	0.0014	mg/L	1.0	SM4500-NO3 F	c	9/16/20	JAL	eno3_200916	
7723-14-0	TOTAL PHOSPHORUS	0.350	0.020	0.0086	mg/L	2.0	SM4500-P F/SM4500-P B(5)	a	9/22/20	BSP	tphos_200922	

Notes:

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