



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

01/04/19

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 (2 pages)

Notes:

- Description of changes to treatment facilities: NONE
- 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: ON FILE
- 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: 2018	
B. PERMIT INFORMATION		
1.	Permit Type (select one): <input checked="" type="checkbox"/> NPDES or <input type="checkbox"/> 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 <input type="checkbox"/> 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.	<input type="checkbox"/> Major or Tier 1 facility (design flow of 1 mgd or greater, or serving a population of 10,000 or greater)	
	<input checked="" type="checkbox"/> Minor or Tier 2 facility (design flow less than 1 mgd or serving a population less than 10,000)	
	<input type="checkbox"/> Class I wastewater treatment facility (i.e., facility with a pre-treatment program)	
	<input type="checkbox"/> 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 <input type="checkbox"/> 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 Hypochlorite

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 checked="" type="checkbox"/> Daily/hourly	<input type="checkbox"/> 3/week	<input 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)	111.279 MG				

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.		
_____ Signature	_____ Title	_____ Date
Print Name: Jake Ehredt		



State of Oregon
Department of
Environmental
Quality

State of Oregon
Department of Environmental Quality
700 NE Multnomah St. Suite 600, Portland, OR 97232

Recycled Water Annual Report
Part II: Sampling and Monitoring Summary

DEQ use only

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			0.65	0.40	1	<1	<1	<1	<1					
6.	Jun			0.60	0.16	26	<1	<1	198.8	<1					
7.	Jul			1.18	0.60	21	<1	<1	36.9	15					
8.	Aug			2.24	1.00	29	<1	<1	2	<1					
9.	Sep			1.31	0.87	19	<1	<1	721.5	161.9					
10.	Oct			1.27	0.90	8	<1	<1	<1	<1					
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	3	7.4	7.6	7.5	3	0.20	6.96	4.16				
6.	Jun	14	6.9	8.9	7.4	26	0.20	9.72	4.61				
7.	Jul	15	6.9	7.6	7.3	21	0.20	5.44	2.77				
8.	Aug	16	7.1	7.6	7.3	29	1.62	7.46	3.55				
9.	Sep	11	6.9	7.3	7.1	19	2.64	10.20	5.03				
10.	Oct	5	7.0	7.3	7.1	8	3.92	5.91	5.14				
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 NO ₂ + NO ₃ (mg/L)			Ammonia NH ₃ -N (mg/L)			Phosphate PO ₄ (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	17.9	17.9	1	0.21	0.21	1	18.3	18.3	1	0.189	0.189			
Jul															
Aug	1	16.6	16.6	1	0.44	0.44	1	14.1	14.1	1	0.125	0.125			
Sep															
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 Colmane				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				163				3.4				8.1			
Agronomic rate:	3.6 in/ac or 1.9 in/ac				3.6 in/ac or 1.9 in/ac								Agronomic rate:			
Soil moisture monitoring:	Moisture blocks				Moisture blocks				Moisture blocks				Moisture blocks			
Additional N sources:	56 lb-N/acre				57 lb-N/acre				57 lb-N/acre				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	1	0.633	0.1	0.1	2	1.3	0.1	0.2					3	0.164	0.1	0.1
Jun	23	12.758	0.1	0.1	21	10.548	0.1	0.2	11	1.594	0.3	1.3	12	1.372	0.1	0.5
Jul	20	11.446	0.1	0.3	20	11.312	0.1	0.2	4	0.685	0.1	0.3	15	1.406	0.1	0.3
Aug	29	18.763	0.1	0.1	26	16.384	0.1	0.2	13	1.631	0.3	1.0	8	0.700	0.1	0.1
Sep	19	7.834	0.1	0.1	18	7.168	0.1	0.1					8	0.615	0.1	0.2
Oct					4	2.674	0.2	0.1					2	0.164	0.1	0.1
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	503.692.7802
Corvallis, OR	Microbiology (d)	540 SW Third Street	Corvallis, OR 97333	541.753.4946



Data Report

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

Reference Number: **18-21853**
 Project: WWTP Monthly Testing

Report Date: 7/3/18

Date Received: 6/19/18

Approved by: anp,bj

Authorized by:

Thanh B Phan
 Lab Manager, Portland

Sample Description: WWTP - Cemetery										Sample Date: 6/19/18 9:00 am		
Lab Number: 44707		Sample Comment:								Collected By: Jessica Seary		
CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Lab	Analyzed	Analyst	Batch	Comment
NA	TOTAL NITROGEN	18.11	1.0		mg/L	1.0	<SUM>	a	6/29/18	LRS	TN_180629	
7664-41-7	AMMONIA-N	18.3	0.100	0.0012	mg/L	10.0	350.1	a	7/2/18	LRS	350.1_180702	
E-14506	ALKALINITY	112.6	2.0		mg CaCO3/L	2.0	SM2320 B	a	6/24/18	SRS	ALK_180624	
E-10128	TOTAL NITRATE/NITRITE	0.21	0.010	0.0026	mg/L	1.0	SM4500-NO3 F	a	6/28/18	LRS	NO3NO2_180628	
E-10264	TOTAL KJELDAHL NITROGEN	17.9	2	0.0047	mg/L	10.0	351.2/351.2	a	6/29/18	LRS	351.2_180629	
7723-14-0	TOTAL PHOSPHORUS	0.189	0.010	0.0026	mg/L	1.0	SM4500-P F/SM4500-P B(5)	a	6/28/18	LRS	TPHOS_180626	

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.



Burlington, WA	Corporate Laboratory (a)	1120 S Walnut St	Burlington, WA 98223	800.755.9295 • 360.757.1400
Bellingham, WA	Microbiology (b)	815 Orchard Dr Ste 4	Bellingham, WA 98225	360.715.1212
Portland, OR	Microbiology/Chemistry (c)	5150 SW Pioneer Ct Ste W	Wilsonville, OR 97150	503.682.7892
Corvallis, OR	Microbiology (d)	540 SW Third Street	Corvallis, OR 97333	541.753.4544



Data Report

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

Reference Number: **18-30320**
 Project: **Molalla WWTP**

Report Date: **8/30/18**

Date Received: **8/15/18**

Approved by: **anp**

Authorized by:

Thanh B Phan
 Lab Manager, Portland

Sample Description: Molalla WWTP - WWTP										Sample Date: 8/15/18 10:05 am		
Lab Number: 61342		Sample Comment:								Collected By: Jaimee		
CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Lab	Analyzed	Analyst	Batch	Comment
NA	TOTAL NITROGEN	17.04			mg/L	1.0	<SUM>	a	8/29/18	LRS	TN_180829	
7664-41-7	AMMONIA-N	14.1	0.050	0.0012	mg/L	5.0	350.1	a	8/21/18	LRS	350.1_180821	
E-14506	ALKALINITY	111	4.0		mg CaCO ₃ /L	4.0	SM2320 B	a	8/16/18	BJ	ALK_180816A	
E-10128	TOTAL NITRATE/NITRITE	0.44	0.020	0.0026	mg/L	2.0	SM4500-NO3 F	a	8/24/18	LRS	NO3NO2_180824	
E-10264	TOTAL KJELDAHL NITROGEN	16.6	2	0.0047	mg/L	10.0	351.2/351.2	a	8/28/18	LRS	351.2_180828	
7723-14-0	TOTAL PHOSPHORUS	0.125	0.010	0.0026	mg/L	1.0	SM4500-P F/SM4500-P B(5)	a	8/28/18	LRS	TPHOS_180828	

Notes:

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 Form: mult_or.rpt