

2016 Molalla WWTP Biosolids Annual Report Form

Facility Information

DEQ File Number: 57613 **Permit Number:** 101514
 Name Molalla WWTP Permit Type: NPDES
 Location Address 12424 S. Toliver Rd. Molalla, OR 97038
 Mailing Address: PO Box 248 Molalla, OR 97038
 Contact name Jason Clifford Telephone: (503) 793-5283
 Email: jclifford@cityofmolalla.com Fax: (503) 829-4298

Biosolids Process Descriptions Generation

Wastewater Sources & Volumes:

	Gallons/year
Municipal	593.577
Industrial	
Septage	
Total Gallons	593.577

Solids Produced:

	Dry Tons (DT)/year
primary	102.2795
secondary	
Lagoon	
Total DT	102.2795

Preparation

Mark applicable processes and on separate sheet describe the processes and equipment used for:

- Screening**
- grit removal**
- settling**
- thickening**
- digestion**
- dewatering**

Storage

For each container type, list numbers, sizes, materials (i.e. steel, etc.) and volume.

Containers	X number of units	X volumes of each storage container	(material)	= total volume
tanks				
clarifiers				
lagoons	2	53MG and 45 MG	Clay Lined	98MG
drying beds				
other				
TOTAL CAPACITY:		98 Million Gallons		

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Application

List transport equipment used from facility to sites (e.g. 3,000 gal. tanker truck).

- ✓ *6,000 and 7,000 gallon tanker trucks*

List application method and equipment used to apply at sites (e.g. truck splash plate, spray gun, manure spreader, etc.).

- ✓ *Splash Plate*

Biosolids Quality

EQ		Class A		Class B	✓	
Testing frequency (times/year)			1 ✓	4	6	12

[Metric Tons] [**<290**] [290>1,500] [1,500>15,000] [≥ 15,000]

[U.S. Tons] [**<319**] [319>1,650] [1,650>16,500] [≥ 16,500]

[Choose one, based on dry weight of biosolids produced and land applied annually.]

Test data

Use Tables below to record quarterly or annual testing results; use average column for annual test data. If testing more frequently (monthly), supply data on separate sheet.

Nutrient Monitoring

Item	1 st quarter	2 nd quarter	3 rd quarter	4 th quarter	Average
TKN			3.605%		
NO ³ -N			<0.058%		
NH ⁴ -N			1.505%		
PO ₄			8.860%		
K			0.074%		
pH			7.4		
Total Solids			4.3 weight %		
Vol. Solids			44.1 weight %		

Test data is expressed in % dry weight (dw), except pH which is standard units.

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Pollutant Monitoring

Metals	1 st quarter	2 nd quarter	3 rd quarter	4 th quarter	<u>Average</u>
As			0.168 ppm		
Cd			0.22 ppm		
Cr			1.32 ppm		
Cu			8.42 ppm		
Pb			0.536 ppm		
Hg			.0922 ppm		
Mo			0.675 ppm		
Ni			1.72 ppm		
Se			<0.200 ppm		
Zn			33.0 ppm		

Test data is expressed in mg/kg (ppm) based on dry weight.

Pathogen Reduction Monitoring & Records

Circle selected pathogen reduction alternative below and on a separate sheet:

- Describe process used to reduce pathogens
- State operational parameters met (e.g. time & temperature)
- Attach monitoring data and certification statement

Part 503.32 Pathogen Reduction Alternatives

Class A Alternatives

[requires tests for fecal coliform &/or *Salmonella* sp.]

1. time & temperature
2. pH >12, 72 hr; @52°C, 12hr, >50%TS
3. pre & post testing for enteric virus & helminth ova
4. post testing for enteric virus & helminth ova
5. PFRP: 1 composting

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Class B Alternatives

1. 7 samples, geometric mean < 2,000,000 MPN or CFU/g TS
2. PSRP: 1 aerobic digestion
2 air drying
- 3 anaerobic digestion
- 4 composting
- 5 lime stabilization
3. PSRP equivalent
2 heat drying
3 heat treatment
- 4 thermophilic aerobic
- 5 beta ray irradiation
- 6 gamma ray irradiation
- 7 pasteurization
6. PFRP equivalent

Vector Attraction Reduction (VAR) Monitoring & Records

Circle selected alternative and on separate sheet:

- Describe VAR process used
- Describe operational parameters met (e.g. pH & time)
- Attach monitoring data and certification statement **Part 503.33** Vector Reduction

Alternatives

In-plant alternatives

1. 38% min. reduction of volatile solids
2. anaerobic bench scale digestion
3. aerobic bench scale digestion
4. SOUR aerobic 1.5mg O²/hr/g TS (dw)
- 5.aerobic 14 days>45°C average temp.
6. pH ≥ 12 for 2 hr, + 22 hr ≥ 11.5 pH
7. secondary solids ≥ 75% solids

8. primary solids ≥ 90% solids

Site management alternatives

9. subsoil injection within 8 hr
10. soil incorporation within 6-8 hr

Other alternatives

11. (for disposal units only)
12. septage only pH ≥ 12 for at least 30 min.

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Land Application Site Information

For all sites used during the reporting year period, provide the following information:
(This information can be provided on a separate spreadsheet if available.)

Site Name (resident)	Site ID No.	Location (Sec,Twn,Rge)	Crop(s)	Acres applied	N lb/ac applied	Application rate DT/ac	Total DT/site	Seasonal restrictions
Ralph Piuser	Mount Hope Road	T5S R1E S13	Barley Stubble	20.1	844.2 Total N applied	6.3	19.8	Summer only

NOTE: Attach the following items if applicable.

Soil test data if site is proposed for application for third consecutive year.
This will apply to all sites used in 1998 that were applied to in 1996 & 1997.
See **OAR 340-50-080(5)**

Cumulative loadings & site life information for sites receiving biosolids with any trace pollutants exceeding Table 3 values. See **OAR 340-50-035(6)(b)**

Screening: The City of Molalla uses an FSM fine screen capable of removing solids larger than ¼ inch.

Settling: Settling is accomplished with the facultative lagoon system. Most solids settle out in the first quarter of number 1 lagoon.

Thickening: Thickening occurs naturally in the bottom of the facultative lagoon system.

Digestion: Anaerobic Digestion occurs naturally at the bottom of number 1 lagoon.