Public Works Department
117 N Molalla Avenue
PO Box 248
Molalla, Oregon 97038
Phone: (503) 829-6855
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June 28, 2018

Steve Mrazik, Water Quality Manager
Oregon DEQ
2020 SW 4th Avenue, Suite 400
Portland, OR 97201-4987

RE: 2018 TMDL Report for City of Molalla

Dear Mr. Mrazik,

Attached is the 2018 TMDL Temperature and Bacteria Report Matrix for the City of Molalla. Included in the status column are several updates of implementations or changes the City has made since adoption of the updated plan in April 2018.

Please let me know if you need any additional information.

Sincerely,

Gerald Fisher, Public Works Director

Cc: DEQ File
Dan Huff, City Manager
Andy Peters, Operations Supervisor

	POLLUTANT: Temperature					**City of Molalla: TMDL Implementation Tracking Matrix**		
SOURCE *What sources of this pollutant are under your jurisdiction?*	**STRATEGY** *What is being done, or what will you do, to reduce and/or control pollution from this source?*	**HOW** *Specifically, how will this be done?*	**FISCAL ANALYSIS** *What is the expected resource need? Are there existing resources budgeted? If not, where will the resources come from?*	**MEASURE** *How will you quantitatively or qualitatively demonstrate successful implementation or completion of this strategy?*	**TIMELINE** *When do you expect it to be completed?*	**MILESTONE** *What intermediate goals do you expect to achieve, and by when, to know progress is being made?*	**ADAPTIVE MANAGEMENT APPLIED** *Indicate how strategies have changed with annual review reports.*	**STATUS** *Include summary and date.*
Lack of shading in riparian areas	Protect and enhance existing vegetation in riparian areas.	Enforce existing Municipal Code17-2.4.030 for new development: 50 ft. riparian and wetland setback and protection of native vegetation.	Code enforcement staffing; 0.20 FTE is currently funded.	Track enforcement actions and violations as well as development plan review. Record square footage of riparian area protected with all development.	On-going; code adopted	Retain all existing riparian vegetation on developments planned through 2020, as required by Municipal Code 17-2.4.030. Report areas protected in annual TMDL review report.	No changes made to code or application of code.	Protection of riparian areas adhered to with development of Bear Creek Subdivision and Twin Meadows Subdivision
Lack of shading in riparian areas	Protect and enhance existing vegetation in riparian areas.	Implement Phase 1 of Bear Creek Greenway Project. Approximately 7,500 LF of 8-10' wide pathway through private industrial and residential lands.	$480,000	Completion of trail from Molalla Forest Rd. to Molalla city limits.	5-15 years	Annual review of budget for possible implementation or private development. Report funding status in annual TMDL review report.	No changes made to code or application of code.	Included bicycled and pedestrian pathway along north side of Molalla Forest Road as part of draft TSP update. No development projects along corridor.

Lack of shading in riparian areas	Protect and enhance existing vegetation in riparian areas.	Conduct public education on protection of riparian areas.	Staffing to conduct educational effort; 0.20 FTE currently funded.	Number of bill inserts and website postings. Number of meetings.	On-going	Educational outreach once per year through 2020. Provide outreach details in annual TMDL review report.	No change.	Continued education of development community and property owners during pre-application meetings.
Lack of shading in riparian areas	Protect and enhance existing vegetation	Tree protection as required by City Code 17-3.4.030.	Staffing as required for plan review and enforcement.	Track enforcement actions and violations as well as number of existing trees retained with each development.	On-going	Maintain all existing trees, where possible, on new development as required by Municipal Code 17-3.4.030. Provide project list and tree protection details in annual TMDL review report.	No changes made to code or application of code.	Community Planner continued enforcement of development code on all projects.
Lack of shading in riparian areas	Partner with watershed groups and Clackamas SWCD where possible.	Establish a working relationship with Clackamas SWCD and watershed groups where possible.	Staffing to conduct educational effort.	Number of meetings attended and projects completed in partnership with watershed groups, number of site visits performed, times bill-inserts are included.	5 years	Attend at least one meeting annually through 2020. Provide list of meetings attended in annual TMDL review report.	No change.	No coordination since adoption of 5 year plan in April 2018.
Lack of shading in riparian areas		Partner on riparian restoration/enhancement projects.	Volunteer and staffing as required.		5 years	Contribute to at least one project by end of 2020. Report on funding status/availability in annual TMDL review report.	No change.	Initial investigation into possible riparian projects with Clackamas SWCD.

Lack of shading in riparian areas		Partner on public education/outreach opportunities.	Volunteer and staffing as required.		5 years	Participate in at least one public outreach with partner by end of 2020. Provide outreach details in annual TMDL review report.	No change.	No coordinate since adoption of 5 year plan in April 2018.
Lack of shading in riparian areas	Tree planting	Enforce tree planting and landscaping by way of Municipal Code 17.3.4.	In City budget for Code enforcement staffing.	Number of trees planted and Area landscaped.	On-going	Establish list of projects that provided new trees and landscape areas through 2020 and include in annual TMDL review.	No changes made to code or application of code.	Community Planner continued enforcement of development code on all projects.
Stormwater	City Council overview and acknowledgement .	Review TMDL Plan, annual reports and five year review with City Council.	None	Track number of times TMDL reports are covered in City Council meeting minutes.	On-going	City Council approval of TMDL Plan and review reports.	No change.	Reviewed draft TMDL as part of 03/14/18 meeting.
Reduced stream flow in Molalla River and tributaries	Reduce municipal water diversion.	Water conservation efforts driven primarily by public education.	Staffing to conduct educational effort; 0.15 FTE currently funded.	Number of bill inserts mailed. Number public service announcements. Monitor total water use.	On-going	Educational outreach once a year through 2020. Water use reported annually and provided in annual TMDL review report.	No change.	2017 Water Quality Report completed and posted to the website Spring 2018. (See attached)

Wastewater treatment plant discharge	Maintain low effluent temperatures .	Maintain compliance with NPDES permit requirements.	Wastewater treatment staff; funded positions.	Molalla River temperature monitoring.	Continuous temperature measurement; monthly permit reporting.	Report instream temperature monitoring with annual TMDL report review.	No change.	See attached DMR's. Monitoring stopped in May with transition to land application.

POLLUTANT: Bacteria, Mercury, and Legacy Pesticides						**City of Molalla: TMDL Implementation Tracking Matrix**		
SOURCE *What sources of this pollutant are under your jurisdiction?*	**STRATEGY** *What is being done, or what will you do, to reduce and/or control pollution from this source?*	**HOW** *Specifically, how will this be done?*	**FISCAL ANALYSIS** *What is the expected resource need? Are there existing resources budgeted? If not, where will the resources come from?*	**MEASURE** *How will you quantitatively or qualitatively demonstrate successful implementation or completion of this strategy?*	**TIMELINE** *When do you expect it to be completed?*	**MILESTONE** *What intermediate goals do you expect to achieve, and by when, to know progress is being made?*	**ADAPTIVE MANAGEMENT APPLIED** *Indicate how strategies have changed with annual reports.*	**STATUS** *Include summary and date.*
Stormwater	Promote Low Impact Development and on-site stormwater treatment.	Encourage green street standards – at least half street improvements with new development. Meet pre-development hydrology requirements per Municipal Code 17-3.6 and Public Works Design Standards Section 3.2.	Currently in Public Works budget.	Percent of green street standards for each project. For each project, stormwater quantity calculations to meet pre-development hydrology and water quality requirements per PW Standards.	On-going	All new development plans incorporate green street standards where practical and include pre-development hydrology. Report applicable improvements in annual TMDL review report.	No change.	No new development applications during this reporting period.

Stormwater	Promote Low Impact Development and on-site stormwater treatment.	Incorporate stormwater treatment with transportation projects: e.g. Fenton Ave.	Included in city budget according to capital improvement plan.	Number of stormwater treatment features installed.	2020	Fenton Ave. Project Completion in 2018.	No change.	Two water quality swales incorporated into design.
Stormwater	Promote Low Impact Development and on-site stormwater treatment.	Encourage use of drainage swales that settle, infiltrate, and treat turbid runoff. Current Public Works Design Standards Section 3.5 provides design specifications for drainage swales.	Currently in City planning budget for plan review.	Track number of projects that incorporate drainage swales.	On-going	Add drainage swales installed to GIS Stormwater map by end of 2020. Report number of water quality facilities constructed in annual TMDL review report.	No change.	Two water quality swales incorporated into Fenton design. GIS work scheduled.
Stormwater	Reduce pet waste in stormwater runoff.	Install waste bags in parks and common dog-walking locations. Citizen education about improper pet waste management.	Currently in Parks budget.	Number of citizen complaints. Track refill need at bag holders.	On-going	Report complaint number and bag use in annual TMDL review report.	No change.	Purchased 3,026 Mutt-Mitts
Stormwater	Educate developers and the public about stormwater and hydrology in the City of Molalla.	Make Stormwater Master Plan and Public Works Design Standards available to public via City website.	None	Number of private development that meet stormwater standards.	On-going	All Private development projects meet stormwater detention and water quality requirements. Report number of water quality facilities constructed in annual TMDL review report.	No change.	No new development applications during this reporting period.

Stormwater	Prevent erosion from construction sites.	Conduct grading inspections per Municipal Code 21.70 to ensure protection against erosion.	Currently in Public Works budget.	Percent of sites that comply voluntarily.	Ongoing	Report number of permitted excavation projects and compliance with Municipal Code 21.70 in annual TMDL review report.	No change.	No new development applications during this reporting period.
Stormwater	Prevent erosion from construction sites.	Cooperate with DEQ to enforce erosion control through 1200C permits as required by Municipal Code - Chapter 17 and Public Works Design	Currently in Public Works budget.	Keep track of 1200C permits within City boundaries.	On-going	Report number of 1200C permits in annual TMDL review report.	No change.	No new development applications during this reporting period. 3 permits still active.
Stormwater	Reduce runoff and sediment load from impervious areas: roads, vacant lots.	Maintain weekly street sweeping schedule.	Currently in Public Works budget.	Using street sweeping log, track frequency of areas cleaned.	On-going	Report volume estimate of street sweepings in annual TMDL review report.	No change.	Approximately 50 CY since plan approval.
Stormwater	Maintenance Program for stormwater collection system.	Maintain storm system components including; catch basins, manholes and pipes.	Currently in Public Works budget. System Development Charges in place for storm drainage system.	Track maintenance projects that improve stormwater system. Construct Decant Facility as funding allows.	On-going	Indicate number and type of maintenance projects in annual TMDL review report. Provide funding status for Decant facility in annual	No change.	Decant Facility budgeted for FY 18-19.
Stormwater	City Council overview and acknowledgement.	Review TMDL Plan, annual reports and five year review with City Council.	None	Track number of times TMDL reports are covered in City Council meeting minutes.	On-going	Staff review of approved TMDL Plans with City Council.	No change.	Reviewed draft TMDL as part of 03/14/18 meeting.

Lack of riparian vegetation; eroding streambanks	Restore riparian vegetation and streambanks.	Implement Phase 1 of Bear Creek Greenway Project. Approximately 7,500 LF of 8-10' wide pathway through private industrial and residential lands.	$480,000	Completion of trail from Molalla Forest Rd. to Molalla city limits.	5-15 years	Annual review of budget for possible implementation or private development. Report funding status in annual TMDL review report.	No change.	Included bicycled and pedestrian pathway along north side of Molalla Forest Road as part of draft TSP update.

Lack of riparian vegetation; eroding streambanks	Restore riparian vegetation and streambanks.	Partner with watershed groups on riparian restoration/ enhancement projects.	Staffing to conduct effort; 0.10 FTE currently funded; volunteer contributions.	Number of projects/efforts completed in partnership with watershed groups.	5 years	Contribute to at least one project by end of 2020. Report on funding status/availability in annual TMDL review report.	No change.	Initial investigation into possible riparian projects with Clackamas SWCD.
Lack of riparian vegetation; eroding streambanks	Protect and enhance existing vegetation in riparian areas.	Enforce existing Municipal Code 17-2.4.030 for new development: 50 ft. riparian and wetland setback and protection of native vegetation	Code enforcement staffing; 0.25 FTE is currently funded.	Track enforcement actions and violations as well as development plan review. Record square footage of riparian area protected with all development.	On-going; code adopted	Retain all existing riparian vegetation on developments planned through 2020, as required by Municipal Code 17-2.4.030. Report areas protected in annual TMDL review report.	No change.	No enforcement actions or new development during this period.

Cross connections of storm and sanitary sewers	Increase effectiveness and efficiency of wastewater treatment.	Eliminate illicit discharge and infiltration issues in downtown core.	To be determined.	Average daily flow to treatment plant before and after cross connect issues addressed.	5 years	Complete Wastewater Facilities Plan in 2018. Report completion of plan and cross connection projects in annual TMDL review report. Include annual review of budget for cross connection projects.	No change.	Draft master plan hearing scheduled for August 1st. Smoke testing and 105 manhole repairs to SS system. Removed 4 SS to storm cross connections.
Cross connections of storm and sanitary sewers	Decommission Septic Systems per Municipal Code 13.08.300 – Upon Availability of Public Sewer – Abandonment of Private Systems.	Administer 30 day notice to connect to city sewer where public sewer is made available.	Planning staff, full time.	Number of new connections made annually as a result of annexations, violations discovered.	On-going	Connect all residential, commercial, industrial properties within city limits to city sewer and report in annual TMDL review report.	No change.	None during reporting period.
Illegal Discharge	Porta potties at parks in summer with no facilities and public events.	Porta potties provided for public use in parks and areas with no public facilities.	Currently in City budget for City funded events.	Track number of porta potties used for events.	On-going	Report number of City funded events requiring porta potties in annual TMDL review report.	No change.	None during reporting period.

Illegal Discharge	Code enforcement of Municipal Code 13.08.840 – Discharge Into Storm Drains.	Provide code enforcement form to citizens.	Currently in City budget for Operations Supervisor.	Track number of complaints.	On-going	Code enforcement form has been made available on the City of Molalla website. Report number of complaints received and corrective actions taken in annual TMDL review report.	No change.	None during reporting period.

City of Molalla

Annual **Water Quality Report**

for Calendar Year **2017**

We are pleased to report that our water is safe and continues to meet or exceed Federal and State requirements. The U.S. Environmental Protection Agency (EPA) requires all community water systems to provide customers with a water quality report each year. Molalla's water comes from the ***Molalla River*** several miles upstream of the city and is treated at the Molalla Municipal Water Treatment Plant. The Molalla River watershed encompasses a total of about 203 square miles and provides us with an extremely clean source of surface water. A source water assessment is available for customer's review.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

Important Message From the EPA:

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

***We have** been testing the quality of your water for many years. Currently there are about 100 water quality standards for potential contaminants in drinking water supplies in Oregon. Of these, a few contaminants have been detected in our drinking water at levels well below maximum acceptable levels set by the State and EPA as indicated in the following table:*

TEST RESULTS						
Contaminant	**Violation Y/N**	**Level Detected**	**Unit Measurement**	**MCLG**	**MCL**	**Likely Source of Contamination**
Microbiological Contaminants						
Turbidity	N	0.690 Highest single measurement	NTU	N/A	TT=NTU's 95%<0.3 100%<1.0	Soil Runoff
Unregulated VOC's						
Chloroform	N	10.2	ppb	N/A	N/A	Byproduct of the Treatment Process
Bromodichloromethane	N	1.1	ppb	N/A	N/A	Soil Runoff
Inorganic Contaminants						
Nitrate	N	0.120	ppm	10	10	Fertilizer, Septic Tanks, Erosion
Disinfection Byproducts						
Halo Acetic Acids (HAA5)	N	18.8	ppb	0	60	Byproducts of Disinfection Process
TTHM (Total Trihalomethanes)	N	17.9	ppb	0	80	Byproducts of Disinfection Process
Chlorine						
Sodium Hypochlorite	N	1.60 (Max Level detected)	ppm	MRDLG = 4.0	MRDL = 4.0	Used for Chlorination / Disinfection
Lead and Copper Results						
Substance	Units	Action Level	90th Percentile	Homes Exceeding Action Level	Complies	Likely Source of Contaminations
Lead	ppb	15	3.0	0	Y	Corrosion of Household Plumbing
Copper	ppm	1.3	0.0	0	Y	Corrosion of Household Plumbing

Table Definitions

(What It All Means…)

MCLG: (*Maximum Contaminants Level Goal*) The level of contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

MCL: (*Maximum Contaminants Level*) The highest level of contaminants that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.

AL: (*Action Level*) The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

TT: (*Treatment Technique*): A required process intended to reduce the level of a contaminant in drinking water.

Turbidity: A measure of the cloudiness of the water and is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants such as chlorine.

MRDL: (*Maximum Residual Disinfectant Level*) The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

(**MRDLG**): (*Maximum Residual Disinfectant Level Goal*) The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contamination.

Pollution Prevention

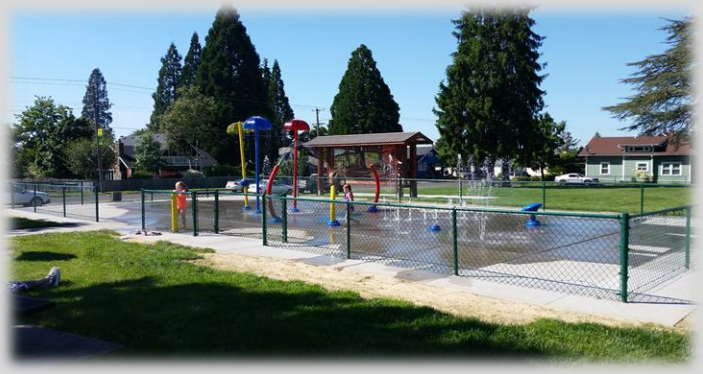
What Can You Do to Help Improve Molalla's Waterways?

Lawn and Garden Care – Skip the weed and feed. Chemicals are harmful to children and pets. Rain can wash chemicals off your lawn and into storm drains and streams.

Vehicle/Car – Maintain your vehicles to reduce oil and fluid leaks.

Pressure Washing – Be stream friendly when cleaning your home, deck, sidewalk and driveway. Pollutants from cleaning activities can flow into storm drains and ditches directly into our rivers and streams.

Pick Up After Your Pets - Proper disposal of pet waste helps to minimize bacteria in our City's streams. Pet waste can contain pathogens such as Giardia, E. coli, Salmonella, and Campylobacter. These can cause illness in humans, especially children and the elder. Always pick up after your pet when on walks, avoid children's play areas, and remember to pick up in your own yard, too.



ppb: Parts per Billion | **ppm**: Parts per Million **NTU** = Nephelometric Turbidity Unit

Opportunities for Public Participation: Residents are always welcome to attend city council meetings, which are normally the 2nd and 4th Wednesday's of each month. For more info, please visit our website.

Lead & Drinking Water

Testing **for lead and copper was performed in September 2015. Tests at the 90th percentile were 3.0 ppb lead and 0.0 ppm copper. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Molalla is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at *www.epa.gov/safewater/lead*.**

Samples are routinely collected from numerous points in the distribution system and then tested. State certified operators collect the samples, which are then tested at state certified laboratories. We constantly monitor for various constituents in the water supply to meet all regulatory requirements.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

- **Microbial contaminants,** such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic contaminants,** such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- **Pesticides and herbicides,** which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- **Organic chemical contaminants,** including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- **Radioactive contaminants,** which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

What Can You Do to Reduce Your Exposure to Lead from Drinking Water?

*** Run the cold-water faucet to flush out lead.** If water has not been used for several hours, run the cold water for 30 seconds to two minutes, or until it becomes cold or reaches a steady temperature, before using it for drinking or cooking.

***Use only cold water for cooking, drinking and preparing formula.** Do not use water from the hot tap to cook, drink or make baby formula. Lead dissolves more easily into hot water.

***Do not boil water to remove lead.** Boiling water will not reduce lead levels.

***Consider using a filter.** Confirm the filter is approved to reduce lead. Always maintain and replace a filter device in accordance with the manufacturer's instructions to protect water quality.

***Consider buying low-lead fixtures.** As of January 4, 2014, all pipes, fittings, and fixtures are required to contain less than 0.25% lead. When buying new fixtures, consumers should seek out those with the lowest lead content. Visit www.nsf.org to learn more about lead content in plumbing fixtures.

NPDES Discharge Monitoring Report - Oregon Department of Environmental Quality (p. 1 of 2)

WS005

Facility Name	City of Molalla WWTP	Phone #	(503) 793-5283	Month/Year	01/2018
DEQ Permit #	101514	DEQ File #	57613	EPA Reference #	
Plant Type	Pre aerated lagoons with filtration	County	Clackamas	Population Served	9960

Operator Certification

Collection System Class	2	Principal Operator	Adam Shultz	Cert. #/Grade	12190/II
Treatment System Class	3	Principal Operator	Jason Clifford	Cert. #/Grade	13017/IV

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Legally Authorized Signature

2/6/2018 — Date

Jason Clifford — Name

Su, M, T, W, Th, F, Sa	Day of Month	INFLUENT Temperature	INFLUENT pH	INFLUENT Flow	INFLUENT BOD composite Concentration	INFLUENT BOD composite Loading	INFLUENT TSS composite Concentration	INFLUENT TSS composite Loading	EFFLUENT Temperature	EFFLUENT pH	EFFLUENT Flow	EFFLUENT DO	EFFLUENT BOD Concentration	EFFLUENT BOD % Removal	EFFLUENT BOD Loading	EFFLUENT TSS Concentration	EFFLUENT TSS % Removal	EFFLUENT TSS Loading	NUTRIENTS Total Kjeldahl Nitrogen	NUTRIENTS Ammonia Nitrogen	NUTRIENTS NO2 + NO3 Nitrogen-N	NUTRIENTS Alkalinity	NUTRIENTS Total Phosphorous	DISINFECTION Chlorine Amount Used	DISINFECTION Chlorine Total Residual	DISINFECTION Chlorine Dechlorination (DMS)	COLIFORM MPN E. Coli	COLIFORM MF Total	RECEIVING STREAM MOLALLA RIVER Dilution	RECEIVING STREAM MOLALLA RIVER Stream Flow	RECEIVING STREAM MOLALLA RIVER Temperature	DAILY LOG Breakdowns, bypassing, odors, complaints, etc.	Day of Month
		°C	SU	MGD	mg/L	lbs	mg/L	lbs	°C	SU	MGD	mg/L	mg/L		lbs	mg/L		lbs	mg/L	mg/L	mg/L	mg/L	mg/L	lbs	mg/L	mg/L	CFU/100 mL			CFS	°C		
M	1	13.2	6.5	2.201					6.0	6.4	2.085	17.46												42	0.55	0.00	0	36.5	56	2350	7.5		1
T	2	13.1	6.5	1.937	119	1927	147	2375	5.6	6.8	2.093	17.48	4	96	75	6	96	99						66	0.77	0.00			45	1890	7.5		2
W	3	13.0	6.5	1.817					5.4	7.1	2.093	17.42												40	0.48	0.00			38	1610	8.9		3
Th	4	13.6	6.5	1.712	119	1703.4	195	2780	5.4	7.3	2.056	17.27	4	96	73	5	97	92						50	0.74	0.00			34	1440	8.2		4
F	5	13.2	6.5	1.886					5.8	7.5	2.026	17.04												47	0.51	0.00			33	1350	8.2		5
Sa	6		6.7	1.998					6.2	7.7	2.017	16.72												37	0.48	0.00			32	1300	8.4		6
Su	7		6.5	1.958					6.2	7.7	2.014	12.50												42	0.50	0.00			40	1210	8.5		7
M	8	13.1	6.6	1.763					6.4	7.5	1.875	12.59												49	0.69	0.00	0	16.0	37	1130	8.8		8
T	9	11.7	6.5	3.395	See log				6.6	7.4	1.774	12.58	See log											37	1.33	0.00			47	1420	9.4	BOD Blank Fail	9
W	10	12.4	6.5	2.515					6.8	7.4	1.786	12.66												49	0.73	0.00			59	1800	9.2		10
Th	11	12.4	6.4	3.721	66	2042	67	2068	7.5	7.5	1.866	12.65	9	86	139	6	90.998	93						44	1.13	0.00			76	2340	9.4		11
F	12	12.4	6.6	2.794					7.9	7.6	2.024	12.76												46	0.46	0.00			137	4240	9.6		12
Sa	13		6.6	2.431					8.2	7.6	2.029	12.68												32	0.46	0.00			98	3020	9.5		13
Su	14		6.6	2.207					8.3	7.9	2.030	12.68												27	0.42	0.00			76	2320	9.2		14
M	15	12.4	6.6	2.057					8.4	8.3	2.019	12.82												15	0.28	0.00			61	1900	9.5		15
T	16	12.8	6.6	2.029	148	2498	244	4129	8.6	8.5	2.013	12.82	6	96	106	5	98	89	7.26		7.71	54	0.154	19	0.36	0.00	0	29.5	55	1700	9.1		16
W	17	12.9	6.3	2.425					8.5	8.6	2.017	12.85								8.47				31	0.66	0.00			48	1500	9.8	Oil & Grease - ND	17
Th	18	11.6	6.3	3.764	79	2493	74	2332	8.2	8.4	2.173	12.84	7	91	135.02	4	95	72						67	0.77	0.00			80	2490	9.6		18
F	19	12.4	6.6	2.918					7.8	7.8	2.358	12.98												27	0.56	0.00			94	2960	9.3		19
Sa	20		6.6	2.609					7.7	7.8	2.372	12.88												2	0.54	0.00			81	2510	8.6		20
Su	21		6.5	2.454					7.5	7.8	2.372	12.92												37	0.56	0.00			70	2200	8.8		21
M	22	12.5	6.6	2.182					7.5	7.8	2.373	17.02												60	0.28	0.00	0	12.0	53	2180	8.5		22
T	23	12.0	6.5	2.869	92	2204	257	6149	7.4	7.7	2.372	16.62	6	94	110.98	7	97	145						34	0.23	0.00			52	2110	9.3		23
W	24	12.0	6.5	3.335					7.5	7.6	2.362	12.97												61	0.39	0.00			133	4170	9.6		24
Th	25	12.0	6.6	2.754	93	2145	93	2136	7.1	7.6	2.362	12.96	6	94	118	9	90	177						54	0.24	0.00			135	4220	9.7		25
F	26	12.3	6.5	2.428					6.8	7.6	2.369	13.02												45	0.37	0.00			100	3140	8.7		26
Sa	27		6.5	2.278					7.1	7.6	2.360	13.00												23	0.29	0.00			94	2940	8.8		27
Su	28		6.5	2.220					7.8	7.5	2.362	12.92												64	0.40	0.00			105	3280	9.4		28
M	29	12.7	6.5	2.458					7.9	7.5	2.370	13.08												84	0.33	0.00	0	1.0	94	2980	8.7		29
T	30	12.1	6.5	2.578	98	2103	227	4872	7.8	7.5	2.376	13.09	6	94	125	8	97	152						44	0.73	0.00			112	3550	9.8		30
W	31	12.2	6.6	2.230					7.9	7.5	2.376	13.16												49	0.68	0.00			94	3000	9.2		31
Total				75.923		17114		26842			66.774				881			919						1324									
Daily Min		11.6	6.3	1.712	66	1703	67	2068	5.4	6.4	1.774	12.50	4	86	73	4	90	72	7.26	8.47	7.71	54	0.154	2	0.23	0.00	0	1.0	32	1130	7.5		
Daily Max		13.6	6.7	3.764	148	2498	257	6149	8.6	8.6	2.376	17.48	9	96	139	9	98	177	7.26	8.47	7.71	54	0.154	84	1.33	0.00	0	36.5	137	4240	9.8		
Wkly Avg																																	
Mo Avg		12.5	6.5	2.449	102	2139	163	3355	7	7.6	2.154	13.95	6	94	110	6	96	115	7.26	8.5	7.71	54	0.154	43	0.55	0.00	0	19	73	2395	9.0		
Daily Limits										6.0-9.0					320			320		25.9						0.18		406					
Wkly Limits									18° C				15		240	15		240		16.7										>350			
Mo Limits													10	>85%	160	10	>85%	160								0.07		126					

NPDES Discharge Monitoring Report - Oregon Department of Environmental Quality (p. 1 of 2)

Facility Name	City of Molalla WWTP	Phone #	(503) 793-5283	Month/Year	02/2018
DEQ Permit #	101514	DEQ File #	57613	EPA Reference #	
Plant Type	Pre aerated lagoons with filtration	County	Clackamas	Population Served	9960

WS005

Operator Certification

Collection System Class	2	Principal Operator	Adam Shultz	Cert. #/Grade	12190/II
Treatment System Class	3	Principal Operator	Jason Clifford	Cert. #/Grade	13017/IV

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Jason Clifford — Legally Authorized Signature

3/5/2018 — Date

Jason Clifford — Name

		INFLUENT							EFFLUENT																				RECEIVING STREAM				DAILY LOG	
					BOD composite			TSS composite					BOD			TSS			NUTRIENTS					DISINFECTION Chlorine			COLIFORM MPN		COLIFORM MF	MOLALLA RIVER					
Su, M, T, W, Th, F, Sa	Day of Month	Temperature	pH	Flow	Concentration	Loading		Concentration	Loading	Temperature	pH	Flow	DO	Concentration	% Removal	Loading	Concentration	% Removal	Loading	Total Kjeldahl Nitrogen	Ammonia Nitrogen	NO2 + NO3 Nitrogen-N	Alkalinity	Total Phosphorous	Amount Used	Total Residual	Dechlorination (DMS)	E. Coli		Total	Dilution	Stream Flow	Temperature		Breakdowns, bypassing, odors, complaints, etc.	Day of Month
		°C	SU	MGD	mg/L	lbs		mg/L	lbs	°C	SU	MGD	mg/L	mg/L		lbs	mg/L		lbs	mg/L	mg/L	mg/L	mg/L	mg/L	lbs	mg/L	mg/L	CFU/100 mL				CFS	°F			
Th	1	12.6	6.5	2.108	92	1612		111	1951	8.0	7.5	2.357	13.09	7	93	133	7	93	143						61	0.74	0.00				435	2480	8.9			1
F	2	12.8	6.5	2.099						8.6	7.5	2.355	13.16												90	0.72	0.00				430	2450	9.6			2
Sa	3		6.5	2.013						9.1	7.5	2.346	13.06												120	0.74	0.00				449	2550	9.4			3
Su	4		6.5	1.977						9.4	7.5	2.349	13.02												45	0.68	0.00				403	2290	9.5			4
M	5	13.3	6.6	1.753						9.7	7.5	2.345	13.22												25	0.70	0.00	0.0		1.0	358	2030	9.5			5
T	6	13.1	6.7	1.620	178	2404		232	3135	9.5	7.5	2.106	13.21	8	96	139	5	98	88						37	0.70	0.00				347	1770	10.2			6
W	7	13.1	6.7	1.531						9.5	7.9	1.976	13.00												50	0.70	0.00				324	1550	9.8			7
Th	8	13.7	6.7	1.481	150	1856		531	6559	9.6	7.9	1.979	13.16	8	95	128	6	99	99						46	0.95	0.00				292	1400	9.9			8
F	9	13.4	6.8	1.397						9.6	7.9	1.939	13.22												41	0.95	0.00				275	1290	9.7			9
Sa	10		6.8	1.430						9.5	7.8	1.929	12.98												41	0.95	0.00				257	1200	10.2			10
Su	11		6.8	1.455						9.3	7.8	1.933	12.90												50	0.97	0.00				240	1120	8.8			11
M	12	13.2	6.7	1.320						9.0	7.8	1.917	12.78												30	1.03	0.00	0.0		1.0	229	1060	8.4			12
T	13	13.4	6.6	1.272	212	2247		302	3204	8.2	7.8	1.869	13.32	6	97	86	9	97	132	5.77		6.43	58.8	0.337	51	0.85	0.00				214	967	7.9			13
W	14	13.2	6.7	1.455						8.2	7.6	1.701	13.64								9.71				96	0.94	0.00				232	953	8.1	Oil & Grease - 2.5ppm		14
Th	15	13.4	6.6	1.313	192	2102		532	5820	8.7	7.6	1.768	13.16	6	97	94	8	99	111						22	0.98	0.00				219	937	8.8			15
F	16	13.5	6.7	1.333						8.6	7.6	1.798	13.16												44	1.00	0.00				202	877	8.1			16
Sa	17		6.7	2.266						8.4	7.7	1.802	13.24												16	0.94	0.00				213	930	7.5			17
Su	18		6.6	2.432						6.8	7.7	1.811	13.24												33	1.00	0.00				358	1570	8.5			18
M	19		6.6	2.276						6.8	7.7	1.796	13.73												34	0.73	0.00	0.0		1.0	315	1370	7.9			19
T	20	12.5	6.7	2.049	130	2215		132	2256	6.4	7.7	1.790	13.58	6	96	87	6	95	90						6	0.76	0.00				33	1100	6.5			20
W	21	12.1	6.6	2.387						6.2	7.8	1.805	16.90												11	1.01	0.00				26	1060	6.8			21
Th	22	12.0	6.6	2.205	103	1889		120	2198	5.9	7.8	2.017	18.30	6	95	93	9	93	147						66	0.97	0.00				23	1000	7.2			22
F	23	12.1	6.6	1.945						5.8	7.8	2.148	18.50												35	1.01	0.00				21	928	6.3			23
Sa	24		6.7	2.034						5.9	7.8	2.162	18.28												60	0.98	0.00				21	917	6.1			24
Su	25		6.6	2.622						5.7	7.8	2.139	18.20												44	0.92	0.00				22	984	6.6			25
M	26	11.8	6.7	2.234						5.7	7.8	2.074	18.30												48	0.78	0.00	7.0		14.6	29	1300	6.3			26
T	27	12.0	6.7	1.991	See log			118	1959	6.2	7.8	2.038	17.80	See log			7	94	115						45	0.79	0.00				28	1190	6.8	BOD blank fail - Initial > Final		27
W	28	12.1	6.7	1.993						6.3	7.8	2.027	17.48												78	0.82	0.00				26	1120	7.3			28
																																			29
																																			30
																																			31
Total				51.991		14325			27081			56.276				760			925						1325											
Daily Min		11.8	6.5	1.272	92	1612		111	1951	5.7	7.5	1.701	12.78	6	93	86	5	93	88	5.77	9.71	6.43	58.8	0.337	6	0.68	0.00	0.0		1.0	21	877	6.1			
Daily Max		13.7	6.8	2.622	212	2404		532	6559	9.7	7.9	2.357	18.50	8	97	139	9	99	147	5.77	9.71	6.43	58.8	0.337	120	1.03	0.00	7.0		14.6	449	2550	10.2			
Wkly Avg																																				
Mo Avg		12.8	6.7	1.857	151	2046		260	3385	8	7.7	2.010	14.56	7	96	109	7	97	116	5.77	9.7	6.43	58.8	0.337	47	0.87	0.00	2		4.4	215	1371	8.2			
Daily Limits											6.0-9.0					320			320		25.9						0.18	406							
Wkly Limits										18° C				15		240	15		240													>350			
Mo Limits														10	>85%	160	10	>85%	160		16.7						0.07	126							

NPDES Discharge Monitoring Report - Oregon Department of Environmental Quality (p. 1 of 2)

WS005

Facility Name	City of Molalla WWTP	**Phone #**	(503) 793-0507	**Month/Year**	03/2018
DEQ Permit #	101514	**DEQ File #**	57613	**EPA Reference #**	
Plant Type	Pre aerated lagoons with filtration	**County**	Clackamas	**Population Served**	9960

Operator Certification

Collection System Class	2	**Principal Operator**	Adam Shultz	**Cert. #/Grade**	12190/II
Treatment System Class	3	**Principal Operator**	Bob Dillard	**Cert. #/Grade**	4369/IV

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Legally Authorized Signature

4/12/18 — Date

Robert J Dillard — Name

Su, M, T, W, Th, F, Sa	Day of Month	INFLUENT Temperature	INFLUENT pH	INFLUENT Flow	INFLUENT BOD composite Concentration	INFLUENT BOD composite Loading	INFLUENT TSS composite Concentration	INFLUENT TSS composite Loading	EFFLUENT Temperature	EFFLUENT pH	EFFLUENT Flow	EFFLUENT DO	EFFLUENT BOD Concentration	EFFLUENT BOD % Removal	EFFLUENT BOD Loading	EFFLUENT TSS Concentration	EFFLUENT TSS % Removal	EFFLUENT TSS Loading	NUTRIENTS Total Kjeldahl Nitrogen	NUTRIENTS Ammonia Nitrogen	NUTRIENTS NO2 + NO3 Nitrogen-N	NUTRIENTS Alkalinity	NUTRIENTS Total Phosphorous	DISINFECTION Chlorine Amount Used	DISINFECTION Chlorine Total Residual	DISINFECTION Chlorine Dechlorination (DMS)	COLIFORM MPN E. Coli	COLIFORM MF Total	RECEIVING STREAM MOLALLA RIVER Dilution	Stream Flow	Temperature	DAILY LOG Breakdowns, bypassing, odors, complaints, etc.	Day of Month
		°C	SU	MGD	mg/L	lbs	mg/L	lbs	°C	SU	MGD	mg/L	mg/L		lbs	mg/L		lbs	mg/L	mg/L	mg/L	mg/L	mg/L	lbs	mg/L	mg/L	CFU/100 mL			CFS	°C		
Th	1	12.1	6.8	2.021	112	1887.8	153	2578.8	6.7	7.7	2.036	17.14	4	96.429	67.921	5	96.732	84.901						23	0.89	0.00			28	1180	9.2		1
F	2	12.1	6.6	1.796					6.8	7.7	2.044	16.95												22	0.84	0.00			37	1510	8.0		2
Sa	3		6.6	1.728					7.4	7.8	2.038	16.74												20	0.78	0.00			33	1320	7.9		3
Su	4		6.6	1.713					7.7	7.8	2.034	16.62												20	0.78	0.00			29	1150	8.3		4
M	5	12.5	6.8	1.534					7.7	7.8	1.812	15.83												22	0.93	0.00	0	0	27	1050	9.5		5
T	6	12.8	6.7	1.478	141	1738	311	3833.5	7.9	7.8	1.691	16.10	5	96.454	70.515	5	98.392	70.515						20	0.90	0.00			25	967	8.1		6
W	7	12.6	6.7	1.455					8.2	7.7	1.695	15.68												19	0.87	0.00	0	2	24	911	8.3		7
Th	8	12.6	6.7	1.644	167	2289.7	312	4277.8	8.5	7.8	1.712	15.26	7	95.808	99.947	5	98.397	71.39						21	0.94	0.00			25	917	9.7		8
F	9	12.1	6.7	2.025					8.7	7.7	1.689	15.43												19	0.87	0.00			32	1180	10.1		9
Sa	10		6.7	1.837					8.8	7.7	1.687	15.67												19	0.86	0.00			59	2250	9.7		10
Su	11		6.7	1.747					9.3	7.7	1.625	15.20												16	0.79	0.00			48	1750	9.8		11
M	12	12.8	6.7	1.609					10.2	7.7	1.608	14.23												15	0.74	0.00	0	1	44	1520	9.1		12
T	13	12.4	6.7	2.252	223	4188.3	226	4244.7	10.3	7.7	1.595	14.44	7	96.861	93.116	6	97.345	79.814						17	0.82	0.00			44	1550	11.0		13
W	14	12.4	6.7	1.948					10.6	7.6	1.606	14.46												17	0.81	0.00			52	1810	10.4		14
Th	15	12.8	6.6	1.986	169	2799.2	172	2848.9	10.4	7.6	1.623	14.18	6	96.45	81.215	4	97.674	54.143						16	0.78	0.00			49	1670	9.1		15
F	16	12.7	6.7	1.971					10.2	7.6	1.634	14.46												16	0.77	0.00			43	1490	10.0		16
Sa	17		6.7	1.847					10.4	7.6	1.642	14.34												17	0.79	0.00			38	1330	9.2		17
Su	18		6.7	1.768					10.4	7.6	1.626	14.45												16	0.75	0.00			37	1290	9.0		18
M	19	13.6	6.6	1.594					10.1	7.6	1.615	14.52												16	0.76	0.00	0	2	35	1220	8.8		19
T	20	13.0	6.7	1.512	169	2131.1	253	3190.4	10.6	7.6	1.629	14.08	7	95.858	95.101	3	98.814	40.758						15	0.74	0.00			33	1130	8.8		20
W	21	13.2	6.7	1.582					11.0	7.6	1.619	13.31												16	0.76	0.00			33	1070	10.0		21
Th	22	12.1	6.6	2.458	1	20.5	233	4776.4	10.6	7.6	1.638	13.64	1	0	13.661	5	97.854	68.305						16	0.76	0.00			32	1050	10.9	Bod is estimate due to dilution	22
F	23	12.1	6.6	2.692					9.6	7.6	1.631	14.15												17	0.81	0.00			42	1430	8.3		23
Sa	24		6.6	2.829					8.9	7.6	1.649	14.50												16	0.77	0.00			44	1560	8.4		24
Su	25		6.6	2.617					8.9	7.6	1.628	14.30												16	0.78	0.00			47	1610	8.9		25
M	26	12.5	6.7	2.212					9.0	7.6	1.610	14.45												17	0.84	0.00	0	12	43	1520	9.5		26
T	27	log	6.7	1.980	92	1519.2	112	1849.5	9.2	7.6	1.640	14.40	9	90.217	123.1	5.5	95.089	75.227	11.4	10.3			0.102	17	0.81	0.00			40	1400	9.8	*Temp/DO probe malfunction; sub to Edge Labs*	27
W	28	12.7	6.7	1.814					9.6	4.2	1.643	15.35												17	0.80	0.00			35	1310	10.4		28
Th	29	12.5	6.7	1.680	150	2101.7	297	4161.3	10.3	7.5	1.616	15.37	6	96	80.865	3.8	98.721	51.214						15	0.74	0.00			37	1390	9.5	split samples Edge Labs	29
F	30	13.7	6.7	1.569					10.8	7.5	1.632	15.23												15	0.73	0.00			38	1410	9.0	Temp/DO probe malfunction	30
Sa	31		606	1.566					11.5	7.5	1.618	14.97												15	0.70	0.00			38	1360	9.9		31
Total				58.464		18676		31761			52.565				725.44			596.27						543.04										
Daily Min		12.1	6.6	1.455	1	20.5	112	1849.5	6.7	4.2	1.595	13.31	1		13.661	3		40.758	11.4	10.3				14.532	0.70	0	0	0	24.020653	911	7.9		
Daily Max		13.7	606	2.829	223	4188.3	312	4776.4	11.5	7.8	2.044	17.14	9		123.1	6		84.901	11.4	10.3				23.25	0.94	0	0	12	59.364391	2250	11		
Wkly Avg																																	
Mo Avg		12.633		1.885935	136	2075.1	229.89	3529	9.3645		1.695645	15.015	5.7778	95.752	80.604	4.7	97.956	66.252	11.4	10.3			0.102	17.518	0.80	0	0	3.4	37.775333	1364.7	9.3097		
Daily Limits										6.0-9.0					320			320		25.9						0.18	406						
Wkly Limits									18° C				15		240	15		240												>350			
Mo Limits													10	>85%	160	10	>85%	160		16.7						0.07	126						

NPDES Discharge Monitoring Report - Oregon Department of Environmental Quality (p. 1 of 2)

Facility Name	City of Molalla WWTP	**Phone #**	(503) 793-5283	**Month/Year**	04/2018
DEQ Permit #	101514	**DEQ File #**	57613	**EPA Reference #**	
Plant Type	Pre aerated lagoons with filtration	**County**	Clackamas	**Population Served**	9960

Operator Certification

Collection System Class	2	**Principal Operator**	Adam Shultz	**Cert. #/Grade**	12190/II
Treatment System Class	3	**Principal Operator**	Robert Dillard	**Cert. #/Grade**	4369 / IV

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

WS005

Legally Authorized Signature

5/4/18 — Date

Robert J. Dillard — Name

Su, M, T, W, Th, F, Sa	Day of Month	INFLUENT							EFFLUENT																		RECEIVING STREAM			DAILY LOG	Day of Month
					BOD composite			TSS composite					BOD			TSS			NUTRIENTS					DISINFECTION Chlorine			COLIFORM MPN		COLIFORM MF	MOLALLA RIVER			Breakdowns, bypassing, odors, complaints, etc.	
		Temperature	pH	Flow	Concentration	Loading		Concentration	Loading	Temperature	pH	Flow	DO	Concentration	% Removal	Loading	Concentration	% Removal	Loading	Total Kjeldahl Nitrogen	Ammonia Nitrogen	NO2 + NO3 Nitrogen-N	Alkalinity	Total Phosphorous	Amount Used	Total Residual (wwtp)	Dechlorination (DMS)	E. Coli		Total	Dilution	Stream Flow	Temperature		
		°C	SU	MGD	mg/L	lbs		mg/L	lbs	°C	SU	MGD	mg/L	mg/L		lbs	mg/L		lbs	mg/L	mg/L	mg/L	mg/L	mg/L	lbs	mg/L	mg/L	CFU/100 mL				CFS	°C		
Su	1		6.8	1.718						11.4	7.6	0.997	14.92												9	0.74	0.00				37	1330	9.5		1
M	2	12	6.7	1.631						11.0	7.6	1.003	15.10												9	0.74	0.00	0		1	38	1370	9.1		2
T	3	11.5	6.7	1.518	140	1771.15		207	2614.31	10.7	7.5	1.010	15.08	5	96	44	5	98	42						24	1.93	0.00				34	1240	9.9		3
W	4	10.8	6.7	1.405						11.0	7.7	0.664	12.29												14	1.78	0.00				39	1160	9.6		4
Th	5	11.9	6.7	1.774	125	1844.96		211	3121.78	11.3	7.5	0.818	11.96	4	97	27	6	97	41						18	1.75	0.00				41	1200	11.5		5
F	6	13.7	6.8	1.641						12.0	7.5	0.655	14.92												14	1.76	0.00				48	1730	11.3		6
Sa	7		6.6	2.648						12.4	7.5	0.753	14.70												18	1.95	0.00				71	2540	11.4		7
Su	8		6.5	4.258						11.2	7.5	0.684	15.20												15	1.83	0.00				167	6140	8.9		8
M	9	12.8	6.6	2.753						11.5	7.6	0.835	15.09												16	1.54	0.00	0		79	146	5320	8.0		9
T	10	13.1	7.1	2.411	98	1960.5		209	4192.46	12.6	7.5	0.940	14.80	5	95	36	5	98	39						19	1.66	0.00	2		5	100	3580	10.5		10
W	11	12.6	6.6	2.590						12.4	7.5	0.837	14.60							12.70	11.60	0.40	81.60	0.08	22	2.11	0.00				84	2960	10.3	ND Oil & grease/ TDS 114 MG/L	11
Th	12	12.5	6.6	3.496	62	1794.59		100	2901.09	11.7	7.5	0.800	15.00	8	86	56	8	92	53						21	2.14	0.00				81	2950	10.6	BOD5 concentration is estimate	12
F	13	12.9	6.6	2.728						11.4	7.6	1.317	15.26												28	1.72	0.00				79	2930	10.6		13
Sa	14		6.7	2.390						11.6	7.6	1.528	15.04												33	1.76	0.00				76	2770	10.6		14
Su	15		6.6	2.980						11.4	7.5	1.647	15.14												15	0.75	0.00				72	2640	11.1		15
M	16	12.7	6.5	2.570						10.9	7.6	1.646	15.26												10	0.52	0.00	3		12	74	2740	8.3		16
T	17	12.9	6.6	2.462	105	2160.08		121	2479.37	10.1	7.6	1.546	15.33	7	94	87	7	94	87						28	1.46	0.00				67	2480	9.8		17
W	18	12..9	6.7	2.469						11.4	7.5	1.506	14.90												28	1.53	0.00				61	2200	9.7		18
Th	19	13.2	6.6	2.100	87	1514.96		111	1944.05	11.6	7.5	1.524	14.63	6	93	74	8	93	102						38	2.01	0.00				55	1930	10.7		19
F	20	13.5	6.7	1.902						12.4	7.5	1.343	14.35												24	1.44	0.00				49	1690	10.0		20
Sa	21			1.560						13.2	7.5	1.632	14.35												7	0.36	0.00				44	1540	10.7		21
Su	22		6.6	1.737						13.6	7.5	1.513	13.61												23	1.22	0.00				47	1540	8.7		22
M	23	13.7	6.6	1.566						14.7	7.5	1.527	12.94												22	1.16	0.00	0		34	45	1420	8.6		23
T	24	14.3	6.6	1.423	117	1386.16		199	2355.76	14.9	7.5	1.673	12.77	7	94	96	5	98	63						29	1.42	0.00				42	1300	11.1		24
W	25	14.2	6.9	1.362						15.8	7.5	1.606	12.28												24	1.24	0.00				40	1200	12.0		25
Th	26	14.6	6.8	1.338	137	1528.77		137	1528.77	17.2	7.5	1.654	11.47	8	94	108	6	96	79						18	0.87	0.00				45	1260	12.3	Grab sample. BOD5 concentration is estimate	26
F	27	14.5	6.9	1.344						16.5	7.5	1.677	11.82												28	1.37	0.00				45	1300	12.1		27
Sa	28		6.8	1.321						16.8	7.5	1.744	11.92												30	1.41	0.00				41	1190	10.4		28
Su	29		6.9	1.350						16.2	7.5	1.694	10.98												33	1.59	0.00				43	1150	10.6		29
M	30	14.7	7	1.196						16.1	7.5	0.898	11.57												19	1.76	0.00	0		241	40	1110	10.1	shut down WWTP	30
	31																																	31
Total				61.641		13961.2			21137.6			37.671				528			506						636										
Daily Min		10.8	6.5	1.196	62	1386.16		100	1528.77	10.1	7.5	0.655	10.98	4		27	5		39	12.7	11.6	0.4			7	0.36	0.00	0		1	34	1110	8		
Daily Max		14.7	7.1	4.258	140	2160.08		211	4192.46	17.2	7.7	1.744	15.33	8		108	8		102	12.7	11.6	0.4			38	2.14	0.00	3		241	167	6140	12.3		
Wkly Avg																																			
Mo Avg		13.1		2.055	109	1745.15		162	2642.2	12.8		1.256	13.91	6	94	66	6	96	63	12.7	11.6	0.4	81.6	0.083	21	1.45	0.00	1		62	61.77784	2130.33	10.2667		
Daily Limits											6.0-9.0					320			320		25.9						0.18	406						
Wkly Limits										18° C				15		240	15		240											>350				
Mo Limits														10	>85%	160	10	>85%	160		16.7						0.07	126						

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Facility Name	City of Molalla WWTP	**Phone #**	(503) 793-5283	**Month/Year**	05/2018
DEQ Permit #	101514	**DEQ File #**	57613	**EPA Reference #**	
Plant Type	Pre aerated lagoons with filtration	**County**	Clackamas	**Population Served**	9960

Operator Certification

Collection System Class	2	**Principal Operator**	Adam Shultz	**Cert. #/Grade**	12190/II
Treatment System Class	3	**Principal Operator**	Robert Dillard	**Cert. #/Grade**	4369 / IV

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Robert J. Dillard

Legally Authorized Signature

Date

Robert J. Dillard

Name

WS005

Su, M, T, W, Th, F, Sa	Day of Month	INFLUENT: Temperature	INFLUENT: pH	INFLUENT: Flow	INFLUENT: BOD composite Concentration	INFLUENT: BOD composite Loading	INFLUENT: TSS composite Concentration	INFLUENT: TSS composite Loading	EFFLUENT: Temperature	EFFLUENT: pH	EFFLUENT: Flow	EFFLUENT: DO	EFFLUENT: BOD Concentration	EFFLUENT: BOD % Removal	EFFLUENT: BOD Loading	EFFLUENT: TSS Concentration	EFFLUENT: TSS % Removal	EFFLUENT: TSS Loading	EFFLUENT: NUTRIENTS Total Kjedahl Nitrogen	EFFLUENT: NUTRIENTS Ammonia Nitrogen	EFFLUENT: NUTRIENTS NO2 + NO3 Nitrogen-N	EFFLUENT: DISINFECTION Chlorine Amount Used	EFFLUENT: DISINFECTION Chlorine Total Residual	EFFLUENT: Turbidity	EFFLUENT: COLIFORM MPN E. Coli	EFFLUENT: COLIFORM	EFFLUENT: COLIFORM MPN Total	RECEIVING STREAM: Dilution	RECEIVING STREAM: Stream Flow	RECEIVING STREAM: Temperature	DAILY LOG: Breakdowns, bypassing, odors, complaints, etc.	Day of Month
		°C	SU	MGD	mg/L	lbs	mg/L	lbs	°C	SU	MGD	mg/L	mg/L		lbs	mg/L		lbs	mg/L	mg/L	mg/L	lbs	mg/L	NTU	CFU/100 mL				CFS	°C		
T	1	14.8	6.9	1.190	139	1376	443	4397														0									Plant shut down	1
W	2	14.9	6.8	1.091																		0										2
Th	3	15.3	6.9	1.096	213	1951	352	3213														0										3
F	4	15.6	6.9	1.015																		0										4
Sa	5		6.9	1.040																		0										5
Su	6		6.9	1.138																		0										6
M	7	15.8	6.8	1.014																		0										7
T	8	15.9	6.8	1.019	254	2154	584	4963														0										8
W	9	15.8	6.8	1.050																		0									DMS Mag meter calibrated	9
Th	10	15.9	6.9	1.140	217	2058	297	2824														0										10
F	11	16.0	6.8	0.998																		0										11
Sa	12		6.8	0.969																		0										12
Su	13		6.7	0.975																		0										13
M	14	16.6	7.0	0.967																		0										14
T	15	16.5	7.0	0.984	271	2224	366	3003														0										15
W	16	16.7	6.3	0.989																		0										16
Th	17	16.9	6.9	0.957	229	1828	260	2075														0										17
F	18	16.8	6.9	0.904																		0										18
Sa	19		7.0	0.985																		0										19
Su	20		6.8	1.042																		0										20
M	21	17.1	6.6	0.908																		0										21
T	22	17.1	6.7	0.897	196	1466	235	1758														0										22
W	23	17.7	6.7	0.629																		0										23
Th	24	17.6	6.7	0.763	223	1419	265	1686														0									plant strat up . Recycle DAF 2	24
F	25	17.6	6.6	0.751																		0										25
Sa	26		6.8	0.847																		0										26
Su	27		7.0	0.614																		0										27
M	28		7.0	0.629																		0									Holiday weekend	28
T	29	17.9	7.1	0.657	286	1567	968	5304		7.6	0.960											1	0.20	0.65			see note				Filling eff line. No spray on fields	29
W	30	17.7	6.9	0.658						7.4	0.802											32	6.96	0.32			see note				Start Irr, Blowoff. QA/QC BOD blank fail	30
Th	31	17.6	7.0	0.644	227	1219	473	2540		7.6	1.358											41	5.32	0.24			<1				QA/QC BOD blank fail +/- .20mg/l BOD EST.	31
Total				28.560				31763			3.120											74										
Daily Min		14.8	6.3	0.614	139	1219	235	1686		7.4	0.802											0	0.20	0.24								
Daily Max		17.9	7.1	1.190	286	2224	968	5304		7.6	1.358											41	6.96	0.65								
Wkly Avg																																
Mo Avg		16.5		0.921	225	1726	424	3176		7.5	1.040											2	4.16	0.40								
Daily Limits																				25.90				<2.0			23					
Wkly Limits																											2.2					
Mo Limits																				16.70												