



CITY OF PORTLAND ENVIRONMENTAL SERVICES



Tryon Creek Wastewater Treatment Plant

195 SW Foothills Road, Bldg 310, Lake Oswego, Oregon 97034 ■ Sam Adams, Commissioner ■ Dean Marriott, Director

December 10, 2009

Mr. Lyle Christensen
2020 SW Fourth Avenue, Suite 400
Portland OR 97201-4987

DEC 14 2009

Dear Mr. Christensen:

I am enclosing the November 2009, DMR for the City of Portland's Tryon Creek Wastewater Treatment Plant (TCWTP).

All measured parameters were within permit limitations during the month.

Please call me at 823-2318 if you have any questions.

Sincerely,

Greg A. Hettman
Operations Manager,
Tryon Creek WTP

STATE OF OREGON DISCHARGE MONITORING REPORT

CITY OF PORTLAND TRYON CREEK POTW
195 FOOTHILLS ROAD
LAKE OSWEGO OR 97034-3163

PLANT TYPE ACTIVATED SLUDGE
TREATMENT SYSTEM CLASS IV
COLLECTION SYSTEM CLASS IV

MAJOR BASIN
RECEIVING STREAM
COUNTY

WILLAMETTE
WILLAMETTE
CLACKAMAS

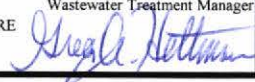
POPULATION EQUIVALENT
PERMIT NUMBER
FILE NUMBER
EXPIRATION

51,413
101614
70735
9/30/2009

DATE	FLOW			PLANT INFLUENT			PLANT EFFLUENT																	
Nov-09	INF	INF	EFF	pH	BOD	TSS	pH	BOD	BOD	BOD	BOD	BOD	TSS	TSS	TSS	TSS	TSS	EFF	CL2	E.COLI /	Total P mg/l	TKN mg/l	NH3 N mg/l	NO3+ NO2-N mg/l
	mgd	PEAK mgd	mgd		mg/l	mg/l		mg/l	Wkly Avg mg/l	Rem %	Dis lbs	Wkly Avg Dis lbs	mg/l	Wkly Avg mg/l	Rem %	Dis lbs	Wkly Avg Dis lbs	TEMP 0 °C	Res mg/l	100ml				
1	4.76	11.80	4.76		212	170		9		96	358		3		98	119		17	0.4					
2	4.12	10.50	4.09	7.1			7.1											17	0.4	<1				
3	4.18	10.00	4.15	7.1	307	354	7.1	6		98	208		<2		99	69		16	0.5					
4	4.03	10.00	4.00	6.9			7.2											17	0.4	4				
5	4.69	11.00	4.66	6.9	335	432	7.1	8		98	311		3		99	117		17	0.5	1				
6	4.93	10.40	4.91	7.0			7.1											17	0.5					
7	8.46	17.30	8.46						8			292		3			102	16	0.4					
8	6.93	12.80	6.93		119	110		5		96	289		4		96	231		16	0.8					
9	6.47	11.50	6.45	7.0			6.9											16	0.5	2				
10	4.89	9.50	4.86	7.0	199	228	7.0	5		97	203		3		99	122		16	0.5					
11	5.79	11.50	5.77	7.0			7.0											16	0.4	2				
12	5.62	11.50	5.59	7.0	160	190	7.0	6		96	280		2		99	93		15	0.4	10				
13	5.61	12.00	5.59	7.0			7.0											15	0.5					
14	5.11	11.50	5.11						5			257		3			149	15	0.4					
15	5.40	10.00	5.40		332	365		6		98	270		2		99	90		16	0.6					
16	5.50	11.00	5.49	7.0			7.0											16	0.6	8				
17	5.73	10.00	5.70	7.0	236	295	6.9	6		97	285		<2		99	95		15	0.6					
18	5.39	11.00	5.36	7.0			7.0											15	0.5	2				
19	5.52	11.50	5.50	7.0	268	328	6.9	6		98	275		3		99	138		15	0.5	4				
20	6.18	10.00	6.16	6.8			7.0											15	0.6					
21	6.93	11.60	6.93						6			277		2			108	15	0.5					
22	7.62	11.50	7.62		127	82		6		95	381		3		96	191		15	0.5					
23	5.90	10.50	5.89	6.9			6.9											15	0.5	10				
24	5.26	10.00	5.24	7.0	114	86	7.0	5		96	218		3		97	131		15	0.4					
25	4.84	9.50	4.82	7.1			7.0											15	0.4	25				
26	8.04	13.20	8.03	7.0	243	232	7.1	9		96	602		3		99	201		15	0.4	4				
27	6.75	11.50	6.72	6.7			7.0											15	0.5					
28	5.77	10.00	5.77						7			401		3			174	15	0.4					
29	5.85	9.00	5.85		226	222		5		98	244		2		99	98		15	0.4					
30	5.02	8.50	5.00	7.1			7.0					423		3			149	15	0.4	1				
Max	8.46	17.30	8.46	7.1	335	432	7.2	9	8	98	602	423	4	3	99	231	174	17	0.8	25				
Min	4.03		4.00	6.7	114	82	6.9	5		95	203		<2		96	69		15	0.4	<1				
Avg	5.71		5.69		221	238		6		97	302		3		99	130		15	0.47	6				
Sum	171.27		170.82						7															

PLANT EFFLUENT PERMIT		May 1 -> October 31		November 1 -> April 30		January 1 -> December 31		REMARKS	
MONTHLY STANDARDS	BOD	20 mg/l / 1400 lbs BOD		30 mg/l / 3100 lbs		CL2 max	0.7 mg/l	Nutrients are sampled May 1 -> October 31 Digested and TWAS sludges are hauled to Columbia Blvd Treatment Plant.	
	TSS	20 mg/l / 1400 lbs TSS		30 mg/l / 3100 lbs		daily pH range	6.0 -> 9.0		
	E. COLI	126 cts/100 ml E. COLI		126 cts/100 ml					

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 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.

NAME Greg Hettman
CLASS Oregon T/IV #4600
TITLE Wastewater Treatment Manager
SIGNATURE 

PRIMARY TREATMENT						MONTHLY REPORT SUMMARY					
Influent			Effluent			Rem %	Primary				
							Feed Sludge				
mg/l lbs/day			mg/l lbs/day			65	Flow gal/day	Total Solids %	Volatile Content %		
S S 238 10888			SS 83 4003			43	13720	8.39	85.5		
BOD5 221 10283			BOD5 126 5923								
Detent Time hrs			Population Equivalent			Precip "	Detention Time days		Loading lbs VS / ft3 /day		
2.8			51413			6.505	26				
SECONDARY TREATMENT											
Influent			Effluent			Rem %					
mg/l lbs/day			mg/l lbs/day			99	Total Solids %	Volatile Content %		Vol Sol Reduct %	
S S 238 10888			SS 3 130			97	2.80	66.1			
BOD5 221 10283			BOD5 6 302								
F/M SVI			SRT days			MLSS mg/l	Total Solids (TWS) %		Capture %		Filtrate Solids mg/l
0.00 239			0.0			1454	5.33				
RAS Flow mgd		CL2 Res mg/l		CL2 Feed lbs/day							
0.95		0.5		70							
WAS Flow mgd		Aerator Detention Time hrs		Aerator DO mg/l		Sludge Hauled					
.000		6.7		0.0		gal/day lbs /day lbs/mo					
						Digst 4333 1012					
						TWS 10773 4792					
						Total 15107 5804					

Page 1									
Date Nov-09	Plant Effluent Nutrients				Flow		Weather		
	Total P	NH3-N	NO3+	TKN	Portland	Lake	Temperature		Precip
	mg/l	mg/l	mg/l	mg/l	mgd	Oswego	Max o F	Min o F	"
11/01/09					1.56	3.21			0.00
11/02/09					1.29	2.83	59	37	0.00
11/03/09					1.30	2.87	65	38	0.00
11/04/09					1.25	2.78	63	42	0.00
11/05/09					1.55	3.14	63	42	0.76
11/06/09					1.52	3.41	63	42	0.13
11/07/09					3.05	5.41	55	42	1.34
11/08/09					2.26	4.67	57	40	0.13
11/09/09					2.02	4.45	55	39	0.27
11/10/09					1.57	3.32	55	44	0.23
11/11/09					1.85	3.95	54	40	0.36
11/12/09					1.73	3.89	54	40	0.22
11/13/09					1.63	3.98	50	33	0.06
11/14/09					1.54	3.57	51	41	0.08
11/15/09					1.72	3.68	56	44	0.06
11/16/09					1.77	3.74	62	45	0.46
11/17/09					1.79	3.93	62	39	0.03
11/18/09					1.67	3.72	55	39	0.23
11/19/09					1.70	3.83	58	46	0.17
11/20/09					1.97	4.21	47	38	0.32
11/21/09					2.31	4.61	42	37	0.63
11/22/09					2.49	5.13	51	38	0.04
11/23/09					1.79	4.11	54	44	0.00
11/24/09					1.64	3.63	59	37	0.00
11/25/09					1.49	3.35	57	41	0.10
11/26/09					2.83	5.22	51	44	0.89
11/27/09					2.11	4.64	53	37	0.00
11/28/09					1.77	4.00	52	38	0.00
11/29/09					1.89	3.96	52	39	0.00
11/30/09					1.60	3.42	47	42	0.00
Max	0.00	0.00	0.00	0.00	3.05	5.41	65	46	1.34
Min	0.00	0.00	0.00	0.00	1.25	2.78	42	33	0.00
Avg					1.82	3.89	55	40	0.22
Sum					54.6	116.6			6.51

Page 2 Date Nov-09		PRIMARY TREATMENT															
		INFLUENT								EFFLUENT						Det Time hrs	No. Basins On
		Flow mgd	Peak Q mgd	Susp Sol.		BOD5		Pop Equiv	Temp oC	pH	Susp Sol.		BOD5				
				mg/l	lbs	mg/l	lbs				mg/l	lbs	mg/l	lbs			
11/01/09	4.76	11.8	170	6754	212	8423	42116			7.1	77	3059	144	5721	2.4	2	
11/02/09	4.12	10.5													2.7	2	
11/03/09	4.18	10.0	354	12332	307	10695	53474			7.1	100	3478	168	5844	2.7	2	
11/04/09	4.03	10.0								6.9					2.8	2	
11/05/09	4.69	11.0	432	16894	335	13101	65503			6.9	110	4296	172	6717	2.4	2	
11/06/09	4.93	10.4								7.0					2.3	2	
11/07/09	8.46	17.3													2.0	3	
11/08/09	6.93	12.8	110	6357	119	6877	34384				86	4970	108	6241	2.4	3	
11/09/09	6.47	11.5								7.0					2.6	3	
11/10/09	4.89	9.5	228	9289	199	8107	40537			7.0	84	3418	117	4761	3.5	3	
11/11/09	5.79	11.5								7.0					2.9	3	
11/12/09	5.62	11.5	190	8904	160	7498	37490			7.0	77	3604	109	5102	3.0	3	
11/13/09	5.61	12.0								7.0					3.0	3	
11/14/09	5.11	11.5													3.3	3	
11/15/09	5.40	10.0	365	16432	332	14946	74732				66	2971	127	5717	3.1	3	
11/16/09	5.50	11.0								7.0					3.1	3	
11/17/09	5.73	10.0	295	14090	236	11272	56361			7.0	96	4580	118	5630	3.0	3	
11/18/09	5.39	11.0								7.0					3.1	3	
11/19/09	5.52	11.5	328	15108	268	12345	61723			7.0	53	2439	95	4371	3.1	3	
11/20/09	6.18	10.0								6.8					2.7	3	
11/21/09	6.93	11.6													2.4	3	
11/22/09	7.62	11.5	82	5210	127	8070	40349				85	5401	103	6545	2.2	3	
11/23/09	5.90	10.5								6.9					3.2	3	
11/24/09	5.26	10.0	86	3775	114	5004	25019			7.0	51	2236	109	4779	3.5	3	
11/25/09	4.84	9.5								7.1					3.5	3	
11/26/09	8.04	13.2	232	15564	243	16302	81511			7.0	100	6704	139	9318	2.1	3	
11/27/09	6.75	11.5								6.7					2.5	3	
11/28/09	5.77	10.0													2.9	3	
11/29/09	5.85	9.0	222	10839	226	11034	55169				100	4882	128	6249	2.9	3	
11/30/09	5.02	8.5								7.1					3.4	3	
Max	8.46	17.30	432	16894	335	16302	81511			7.1	110.0	6703.5	172.0	9317.9	3.5	3	
Min	4.03		82	3775	114	5004	25019			6.7	51.0	2235.9	95.0	4371.0	2.0	2	
Avg	5.71		238	10888	221	10283	51413			7.0	83.5	4003.0	125.9	5922.8	2.8	3	
Sum	171.3																

Page 4	PLANT EFFLUENT										E. COLI					
											2	G Ave				
	Date Nov-09	FLOW	SUS SOL			BOD5			CL2			2		Temp	Ph	BYPASS
		mgd	mg/l	lbs	% Rem	mg/l	lbs	% Rem	Contact hrs	Feed lbs/day	Res mg/l					
11/01/09	4.76	3	119	98	9	358	96	3.5	69	0.40	1		16.6		0.00	
11/02/09	4.09							4.1	26	0.42			16.5	7.1	0.00	
11/03/09	4.15	<2	69	99	6	208	98	4.1	76	0.48			16.4	7.1	0.00	
11/04/09	4.00							4.2	77	0.38	4		16.5	7.2	0.00	
11/05/09	4.66	3	117	99	8	311	98	3.6	164	0.54	1		16.5	7.1	0.00	
11/06/09	4.91							3.4	52	0.47	2		16.5	7.1	0.00	
11/07/09	8.46							2.0	194	0.42			15.5		0.00	
11/08/09	6.93	4	231	96	5	289	96	2.4	78	0.76			15.7		0.00	
11/09/09	6.45							2.6	21	0.50	2		15.7	6.9	0.00	
11/10/09	4.86	3	122	99	5	203	97	3.5	90	0.53			15.8	7.0	0.00	
11/11/09	5.77							2.9	63	0.37	2		15.6	7.0	0.00	
11/12/09	5.59	2	93	99	6	280	96	3.0	60	0.40	10		15.3	7.0	0.00	
11/13/09	5.59							3.0	40	0.47	3		15.0	7.0	0.00	
11/14/09	5.11							3.3	83	0.42			15.3			
11/15/09	5.40	2	90	99	6	270	98	3.1	35	0.59			15.5		0.00	
11/16/09	5.49							3.1	80	0.58	8		15.6	7.0	0.00	
11/17/09	5.70	<2	95	99	6	285	97	3.0	30	0.58			15.1	6.9	0.00	
11/18/09	5.36							3.1	71	0.47	2		15.1	7.0	0.00	
11/19/09	5.50	3	138	99	6	275	98	3.1	76	0.46	4		15.3	6.9	0.00	
11/20/09	6.16							2.7	50	0.55	4		15.3	7.0	0.00	
11/21/09	6.93							2.4	79	0.51			15.0		0.00	
11/22/09	7.62	3	191	96	6	381	95	2.2	91	0.47			14.7		0.00	
11/23/09	5.89							2.9	80	0.54	10		14.9	6.9	0.00	
11/24/09	5.24	3	131	97	5	218	96	3.2	60	0.35			14.9	7.0	0.00	
11/25/09	4.82							3.5	55	0.41	25		15.0	7.0	0.00	
11/26/09	8.03	3	201	99	9	602	96	2.1	67	0.41	4		14.9	7.1	0.00	
11/27/09	6.72							2.5	76	0.48	10		14.5	7.0	0.00	
11/28/09	5.77							2.9	43	0.37			14.6		0.00	
11/29/09	5.85	2	98	99	5	244	98	2.9	65	0.43			14.8		0.00	
11/30/09	5.00							3.4	46	0.40	1		14.7	7.0	0.00	
											5					
Max	8.46	4	231	99	9	602	98	4.2	194	0.76	25	10	16.6	7.2	0.00	
Min	4.00	2	69	96	5	203	95	2.0	21	0.35	1	2	14.5	6.9	0.00	
Avg	5.69	3	130	99	6	302	97	3.1	70	0.47	6	5	15.4		0.00	
Sum	170.8														0.00	

[illegible]

Page 8	NPDES Peak Mass Limits										
Date	Total			Instantaneous		DML=9382 lbs			DML=4153 lbs		
Nov-09	Portland mgd	Lake Oswego mgd	Combined mgd	Peak mgd	Minimum mgd	"O" Limit mgd	BOD lbs	TSS lbs	"P" Limit mgd	BOD lbs	TSS lbs
11/01/09	1.6	3.2	4.8	11.8					11.8	358	119
11/02/09	1.3	2.8	4.1	10.5					10.5		
11/03/09	1.3	2.9	4.2	10.0					10.0	208	69
11/04/09	1.3	2.8	4.0	10.0					10.0		
11/05/09	1.5	3.1	4.7	11.0					11.0	311	117
11/06/09	1.5	3.4	4.9	10.4					10.4		
11/07/09	3.1	5.4	8.5	17.3		17.3					
11/08/09	2.3	4.7	6.9	12.8					12.8	289	231
11/09/09	2.0	4.4	6.5	11.5					11.5		
11/10/09	1.6	3.3	4.9	9.5					9.5	203	122
11/11/09	1.8	3.9	5.8	11.5					11.5		
11/12/09	1.7	3.9	5.6	11.5					11.5	280	93
11/13/09	1.6	4.0	5.6	12.0					12.0		
11/14/09	1.5	3.6	5.1	11.5					11.5		
11/15/09	1.7	3.7	5.4	10.0					10.0	270	90
11/16/09	1.8	3.7	5.5	11.0					11.0		
11/17/09	1.8	3.9	5.7	10.0					10.0	285	95
11/18/09	1.7	3.7	5.4	11.0					11.0		
11/19/09	1.7	3.8	5.5	11.5					11.5	275	138
11/20/09	2.0	4.2	6.2	10.0					10.0		
11/21/09	2.3	4.6	6.9	11.6					11.6		
11/22/09	2.5	5.1	7.6	11.5					11.5	381	191
11/23/09	1.8	4.1	5.9	10.5					10.5		
11/24/09	1.6	3.6	5.3	10.0					10.0	218	131
11/25/09	1.5	3.3	4.8	9.5					9.5		
11/26/09	2.8	5.2	8.0	13.2					13.2	602	201
11/27/09	2.1	4.6	6.7	11.5					11.5		
11/28/09	1.8	4.0	5.8	10.0					10.0		
11/29/09	1.9	4.0	5.9	9.0					9.0	244	98
11/30/09	1.6	3.4	5.0	8.5					8.5		
Max	3.1	5.4	8.5	17.3		17	N/A	N/A	13.2	602	231
Min	1.3	2.8	4.0								
Avg	1.8	3.9	5.7								
Sum	55	117	171			N/A	N/A	N/A			

City of Portland

Tryon Creek Treatment Plant

Tryon Creek Wastewater Treatment Plant, 195 SW. Foothills Rd., Lake Oswego, OR 97034
(503) 823-2320, FAX (503) 823-2322

DATE: 12/10/2009
TO: Pat McDougal, City of Lake Oswego
FAX (503) 635-0269
FROM: City of Portland
SUBJECT: Rainfall and Flow Data

DATE	Flow		Temperature		Rain
	Portland	Lake Oswego	Maximum	Minimum	
11/1/2009	1.56	3.21			0.00
11/2/2009	1.29	2.83	59	37	0.00
11/3/2009	1.30	2.87	65	38	0.00
11/4/2009	1.25	2.78	63	42	0.00
11/5/2009	1.55	3.14	63	42	0.76
11/6/2009	1.52	3.41	63	42	0.13
11/7/2009	3.05	5.41	55	42	1.34
11/8/2009	2.26	4.67	57	40	0.13
11/9/2009	2.02	4.45	55	39	0.27
11/10/2009	1.57	3.32	55	44	0.23
11/11/2009	1.85	3.95	54	40	0.36
11/12/2009	1.73	3.89	54	40	0.22
11/13/2009	1.63	3.98	50	33	0.06
11/14/2009	1.54	3.57	51	41	0.08
11/15/2009	1.72	3.68	56	44	0.06
11/16/2009	1.77	3.74	62	45	0.46
11/17/2009	1.79	3.93	62	39	0.03
11/18/2009	1.67	3.72	55	39	0.23
11/19/2009	1.70	3.83	58	46	0.17
11/20/2009	1.97	4.21	47	38	0.32
11/21/2009	2.31	4.61	42	37	0.63
11/22/2009	2.49	5.13	51	38	0.04
11/23/2009	1.79	4.11	54	44	0.00
11/24/2009	1.64	3.63	59	37	0.00
11/25/2009	1.49	3.35	57	41	0.10
11/26/2009	2.83	5.22	51	44	0.89
11/27/2009	2.11	4.64	53	37	0.00
11/28/2009	1.77	4.00	52	38	0.00
11/29/2009	1.89	3.96	52	39	0.00
11/30/2009	1.60	3.42	47	42	0.00
Max	3.05	5.41	65	46	1.34
Min	1.25	2.78	42	33	0.00
Avg	1.82	3.89	55	40	0.22
SUM	54.63	116.64			6.51