



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

January 12, 2010

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



Dear Mr. Christensen:

I am enclosing the December 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

53,323
101614
70735
9/30/2009

DATE	FLOW			PLANT INFLUENT			PLANT EFFLUENT																	
Dec-09	INF	INF	EFF	pH	BOD	TSS	pH	BOD	BOD	BOD	BOD	BOD	TSS	TSS	TSS	TSS	TSS	EFF	CL2	E.COLI/	Total	TKN	NH3	NO3+
	mgd	PEAK	mgd																					
1	4.82	8.50	4.80	7.0	244	240	7.0	7		97	280		2		99	80		14	0.4					
2	4.46	8.50	4.43	7.0			7.0											14	0.5	1				
3	4.32	8.20	4.30	7.1	324	342	7.0	13		96	466		5		99	179		14	0.4	4				
4	4.13	7.60	4.11	7.1			7.1											14	0.4					
5	4.31	8.20	4.31						9			315		3			120	14	0.5					
6	4.68	8.10	4.68		272	264		8		97	312		2		99	78		13	0.5					
7	4.26	8.50	4.24	7.2			7.3											13	0.6	3				
8	4.33	8.00	4.31	7.1	127	39	7.0	7		94	251		4		90	144		12	0.6					
9	4.22	8.20	4.20	7.2			7.1											12	0.5	1				
10	4.27	8.00	4.26	7.1	293	350	7.1	6		98	213		6		98	213		12	0.5	<1				
11	4.02	8.00	4.00	7.0			7.1											13	0.6					
12	4.36	8.80	4.36						7			259		4			145	13	0.6					
13	4.73	7.50	4.73		368	340		8		98	316		6		98	237		13	0.7					
14	6.45	14.50	6.43	7.2			7.0											13	0.4	1				
15	11.84	16.00	11.81	7.1	215	416	6.8	6		97	591		6		99	591		12	0.6					
16	11.06	14.00	11.03	7.0			6.9											12	0.7	9				
17	8.47	12.00	8.43	6.8	<60	34	6.9	6		90	422		10		71	703		12	0.5	16				
18	6.44	10.60	6.42	6.8			6.8											12	0.7					
19	6.30	10.60	6.30						7			443		7			510	13	0.6					
20	7.83	11.00	7.83		177	190		<6		97	392		4		98	261		13	0.5					
21	8.60	12.00	8.59	6.8			6.8											13	0.6	3				
22	6.75	11.00	6.73	6.9	137	137	6.8	7		95	393		2		99	112		13	0.7					
23	5.81	10.00	5.78	6.9			6.8											13	0.5	36				
24	5.78	10.00	5.76	6.8	377	386	6.9	4		99	192		5		99	240		13	0.6	24				
25	5.18	9.00	5.15	7.0			7.0											12	0.4					
26	4.92	10.10	4.92						6			326		4			205	12	0.6					
27	4.85	10.00	4.85		307	324		12		96	486		4		99	162		12	0.6					
28	4.68	9.00	4.66	7.2			7.1											12	0.5	65				
29	4.54	8.50	4.51	7.2	164	92	7.1	EST 7					3		97	113		12	0.5					
30	6.34	11.50	6.32	7.2			7.1											12	0.6	100				
31	12.18	16.00	12.15	7.1	<60	25	7.0	10		83	1013		13		48	1317		12	0.6	11				
Max	12.18	16.00	12.15	7.2	377	416	7.3	13	9	99	1013	443	13	7	99	1317	510	14	0.7	100				
Min	4.02		4.00	6.8	<60	25	6.8	4		83	192		2		48	78		12	0.4	<1				
Avg	5.97		5.95		223	227		8		97	410		5		98	317		13	0.55	9				
Sum	184.93		184.42																					

PLANT EFFLUENT PERMIT

MONTHLY STANDARDS

May 1 -> October 31
BOD 20 mg/l / 1400 lbs BOD
TSS 20 mg/l / 1400 lbs TSS
E. COLI 126 cts/100 ml E. COLI

November 1 -> April 30

30 mg/l / 3100 lbs

30 mg/l / 3100 lbs

126 cts/100 ml

January 1 -> December 31

CL2 max

0.7 mg/l

daily pH range

6.0 -> 9.0

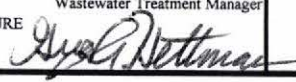
REMARKS

Nutrients are sampled May 1 -> October 31

Digested and TWAS sludges are hauled to Columbia Blvd Treatment Plant.

* The BOD effluent samples for the 29th was not used in the calculations and was reported as an estimates because of a lab error with the seed.

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/V #4600
TITLE Wastewater Treatment Manager
SIGNATURE 

PRIMARY TREATMENT						MONTHLY REPORT SUMMARY					
Influent			Effluent			Rem %	Primary				
mg/l lbs/day			mg/l lbs/day				Feed Sludge				
S S	227	11495	SS	78	3706		Flow gal/day	Total Solids %	Volatile Content %		
BOD5	223	10665	BOD5	134	6305	40	12640	7.22	86.3		
Detent Time hrs			Population Equivalent		Flow mgd	Precip "	Detention Time days		Loading lbs VS / ft3 /day		
3.6			53323		5.97	5.6	28				
SECONDARY TREATMENT											
Influent			Effluent			Rem %					
mg/l lbs/day			mg/l lbs/day								
S S	227	11495	SS	5	317		Total Solids %				
BOD5	223	10665	BOD5	8	410	98	2.61		Volatile Content %		Vol Sol Reduct %
F/M		SVI				97			65.9		
0.00			0.0			MLSS mg/l	Total Solids (TWS) %		Capture %		Filtrate Solids mg/l
241			1533				5.52				
RAS Flow mgd			CL2 Res mg/l		CL2 Feed lbs/day	Sludge Hauled					
0.97			0.5		81	gal/day lbs /day lbs/mo					
WAS Flow mgd			Aerator Detention Time hrs		Aerator DO mg/l	Digst					
.000			6.7		0.0	4706 1024					
						TWS					
						11645 5363					
						Total					
						16352 6388					

Page 1									
	Plant Effluent Nutrients				Flow		Weather		
Date			NO3+		Portland	Lake	Temperature		Precip
Dec-09	Total P	NH3-N	NO2-N	TKN		Oswego	Max	Min	
	mg/l	mg/l	mg/l	mg/l	mgd	mgd	o F	o F	"
12/01/09					1.53	3.30	51	40	0.00
12/02/09					1.43	3.03	40	38	0.00
12/03/09					1.40	2.93	48	28	0.00
12/04/09					1.29	2.83	46	27	0.00
12/05/09					1.41	2.90	42	31	0.00
12/06/09					1.57	3.11	36	24	0.00
12/07/09					1.36	2.90	30	21	0.00
12/08/09					1.39	2.94	32	14	0.00
12/09/09					1.35	2.87	13	15	0.00
12/10/09					1.36	2.91	36	15	0.00
12/11/09					1.30	2.72	38	15	0.00
12/12/09					1.46	2.90	37	29	0.03
12/13/09					1.62	3.11	47	35	0.04
12/14/09					2.31	4.14	47	39	1.35
12/15/09					3.99	7.85	51	39	0.92
12/16/09					3.44	7.62	52	41	0.46
12/17/09					2.55	5.92	50	37	0.07
12/18/09					1.95	4.49	47	45	0.09
12/19/09					1.97	4.33	50	43	0.12
12/20/09					2.71	5.12	52	44	0.62
12/21/09					2.76	5.85	45	37	0.11
12/22/09					2.10	4.65	47	31	0.00
12/23/09					1.82	3.99	39	31	0.00
12/24/09					1.83	3.95	42	28	0.00
12/25/09					1.67	3.51	41	35	0.00
12/26/09					1.56	3.36	41	34	0.00
12/27/09					1.56	3.30	40	35	0.00
12/28/09					1.49	3.19	43	26	0.00
12/29/09					1.46	3.07	39	30	0.40
12/30/09					2.21	4.13	48	34	0.36
12/31/09					4.37	7.81	53	34	1.03
Max	0.00	0.00	0.00	0.00	4.37	7.85	53	45	1.35
Min	0.00	0.00	0.00	0.00	1.29	2.72	13	14	0.00
Avg					1.94	4.02	43	31	0.18
Sum					60.2	124.7			5.60

Page 2	PRIMARY TREATMENT															
	INFLUENT								EFFLUENT						Det Time hrs	No. Basins On
	Flow mgd	Peak Q mgd	Susp Sol. mg/l lbs		BOD5 mg/l lbs		Pop Equiv	Temp oC	pH	Susp Sol. mg/l lbs		BOD5 mg/l lbs				
Date Dec-09	mgd	mgd	mg/l	lbs	mg/l	lbs				mg/l	lbs	mg/l	lbs			
12/01/09	4.82	8.5	240	9654	244	9815	49073		7.0	91	3656	157	6307	3.5	3	
12/02/09	4.46	8.5							7.0					3.8	3	
12/03/09	4.32	8.2	342	12330	324	11681	58407		7.1	91	3276	150	5400	3.9	3	
12/04/09	4.13	7.6							7.1					4.1	3	
12/05/09	4.31	8.2												3.9	3	
12/06/09	4.68	8.1	264	10311	272	10623	53116			130	5077	194	7577	3.6	3	
12/07/09	4.26	8.5							7.2					4.0	3	
12/08/09	4.33	8.0	39	1408	127	4585	22926		7.1	67	2416	169	6095	3.9	3	
12/09/09	4.22	8.2							7.2					4.0	3	
12/10/09	4.27	8.0	350	12467	293	10437	52184		7.1	78	2774	174	6189	4.0	3	
12/11/09	4.02	8.0							7.0					4.2	3	
12/12/09	4.36	8.8												3.9	3	
12/13/09	4.73	7.5	340	13415	368	14520	72600			100	3946	188	7418	3.6	3	
12/14/09	6.45	14.5							7.2					2.6	3	
12/15/09	11.84	16.0	416	41064	215	21223	106116		7.1	65	6413	76	7498	1.4	3	
12/16/09	11.06	14.0							7.0					1.5	3	
12/17/09	8.47	12.0	34	2400	<60	4236	21179		6.8	36	2540	62	4374	2.7	4	
12/18/09	6.44	10.6							6.8					3.5	4	
12/19/09	6.30	10.6												3.6	4	
12/20/09	7.83	11.0	190	12414	177	11564	57822			88	5750	112	7318	2.9	4	
12/21/09	8.60	12.0							6.8					2.6	4	
12/22/09	6.75	11.0	137	7715	137	7715	38574		6.9	54	3038	104	5851	3.3	4	
12/23/09	5.81	10.0							6.9					3.9	4	
12/24/09	5.78	10.0	386	18614	377	18180	90898		6.8	78	3757	144	6937	4.4	4	
12/25/09	5.18	9.0							7.0					4.4	4	
12/26/09	4.92	10.1												4.6	4	
12/27/09	4.85	10.0	324	13116	307	12428	62140			91	3684	155	6275	4.7	4	
12/28/09	4.68	9.0							7.2					4.8	4	
12/29/09	4.54	8.5	92	3480	164	6204	31021		7.2	49	1851	125	4722	5.0	4	
12/30/09	6.34	11.5							7.2					3.6	4	
12/31/09	12.18	16.0	25	2539	<60	6093	30464		7.1	68	6902	68	6902	1.9	4	
Max	12.18	16.00	416	41064	377	21223	106116		7.2	130.0	6901.7	194.0	7576.9	5.0	4	
Min	4.02		25	1408	60	4236	21179		6.8	36.0	1851.1	62.0	4373.9	1.4	3	
Avg	5.97		227	11495	223	10665	53323		7.0	77.6	3706.0	134.1	6304.6	3.6	3	
Sum	184.9															

[illegible]

[illegible]

Page 8	NPDES Peak Mass Limits										
Date	Total			Instantaneous		DML=9382 lbs			DML=4153 lbs		
Dec-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
12/01/09	1.5	3.3	4.8	8.5					8.5	280	80
12/02/09	1.4	3.0	4.5	8.5					8.5		
12/03/09	1.4	2.9	4.3	8.2					8.2	466	179
12/04/09	1.3	2.8	4.1	7.6					7.6		
12/05/09	1.4	2.9	4.3	8.2					8.2		
12/06/09	1.6	3.1	4.7	8.1					8.1	312	78
12/07/09	1.4	2.9	4.3	8.5					8.5		
12/08/09	1.4	2.9	4.3	8.0					8.0	251	144
12/09/09	1.4	2.9	4.2	8.2					8.2		
12/10/09	1.4	2.9	4.3	8.0					8.0	213	213
12/11/09	1.3	2.7	4.0	8.0					8.0		
12/12/09	1.5	2.9	4.4	8.8					8.8		
12/13/09	1.6	3.1	4.7	7.5					7.5	316	237
12/14/09	2.3	4.1	6.4	14.5					14.5		
12/15/09	4.0	7.9	11.8	16.0					16.0	591	591
12/16/09	3.4	7.6	11.1	14.0					14.0		
12/17/09	2.5	5.9	8.5	12.0					12.0	422	703
12/18/09	2.0	4.5	6.4	10.6					10.6		
12/19/09	2.0	4.3	6.3	10.6					10.6		
12/20/09	2.7	5.1	7.8	11.0					11.0	392	261
12/21/09	2.8	5.8	8.6	12.0					12.0		
12/22/09	2.1	4.7	6.8	11.0					11.0	393	112
12/23/09	1.8	4.0	5.8	10.0					10.0		
12/24/09	1.8	3.9	5.8	10.0					10.0	192	240
12/25/09	1.7	3.5	5.2	9.0					9.0		
12/26/09	1.6	3.4	4.9	10.1					10.1		
12/27/09	1.6	3.3	4.9	10.0					10.0	486	162
12/28/09	1.5	3.2	4.7	9.0					9.0		
12/29/09	1.5	3.1	4.5	8.5					8.5		113
12/30/09	2.2	4.1	6.3	11.5					11.5		
12/31/09	4.4	7.8	12.2	16.0					16.0	1013	1317
Max	4.4	7.9	12.2	16.0		N/A	N/A	N/A	16.0	1013	1317
Min	1.3	2.7	4.0								
Avg	1.9	4.0	6.0								
Sum	60	125	185			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: 1/12/2010
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	
12/1/2009	1.53	3.30	51	40	0.00
12/2/2009	1.43	3.03	40	38	0.00
12/3/2009	1.40	2.93	48	28	0.00
12/4/2009	1.29	2.83	46	27	0.00
12/5/2009	1.41	2.90	42	31	0.00
12/6/2009	1.57	3.11	36	24	0.00
12/7/2009	1.36	2.90	30	21	0.00
12/8/2009	1.39	2.94	32	14	0.00
12/9/2009	1.35	2.87	13	15	0.00
12/10/2009	1.36	2.91	36	15	0.00
12/11/2009	1.30	2.72	38	15	0.00
12/12/2009	1.46	2.90	37	29	0.03
12/13/2009	1.62	3.11	47	35	0.04
12/14/2009	2.31	4.14	47	39	1.35
12/15/2009	3.99	7.85	51	39	0.92
12/16/2009	3.44	7.62	52	41	0.46
12/17/2009	2.55	5.92	50	37	0.07
12/18/2009	1.95	4.49	47	45	0.09
12/19/2009	1.97	4.33	50	43	0.12
12/20/2009	2.71	5.12	52	44	0.62
12/21/2009	2.76	5.85	45	37	0.11
12/22/2009	2.10	4.65	47	31	0.00
12/23/2009	1.82	3.99	39	31	0.00
12/24/2009	1.83	3.95	42	28	0.00
12/25/2009	1.67	3.51	41	35	0.00
12/26/2009	1.56	3.36	41	34	0.00
12/27/2009	1.56	3.30	40	35	0.00
12/28/2009	1.49	3.19	43	26	0.00
12/29/2009	1.46	3.07	39	30	0.40
12/30/2009	2.21	4.13	48	34	0.36
12/31/2009	4.37	7.81	53	34	1.03
Max	4.37	7.85	53	45	1.35
Min	1.29	2.72	13	14	0.00
Avg	1.94	4.02	43	31	0.18
SUM	60.21	124.72			5.60