



CITY OF PORTLAND ENVIRONMENTAL SERVICES



Tryon Creek Wastewater Treatment Plant

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

September 15, 2009

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



Dear Mr. Christensen:

I am enclosing the August 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

54,962
101614
70735
9/30/2009

DATE	FLOW			PLANT INFLUENT			PLANT EFFLUENT																	
Aug-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	4.01	9.10	4.00						7			223		4			121	22	0.4					
2	4.20	7.50	4.20		302	310		8		97	280		3		99	105		21	0.6					
3	4.00	7.00	3.97	7.1			7.4											21	0.4	3				
4	3.93	6.20	3.90	7.0	317	360	7.1	6		98	195		2		99	65		21	0.3		2.10	28.60	26.20	0.42
5	3.80	7.00	3.79	6.8			7.1											21	0.3	<1				
6	3.88	6.50	3.87	7.0	316	342	7.2	6		98	193		2		99	64		21	0.4	3				
7	3.65	7.20	3.63	7.0			7.1											20	0.5					
8	3.87	7.80	3.87						7			223		2			78	20	0.3					
9	4.21	9.00	4.21		257	234		8		97	281		7		97	246		20	0.4					
10	4.21	9.50	4.19	7.2			7.2											21	0.4	4				
11	4.57	9.50	4.55	7.0	338	372	7.2	11		97	417		4		99	152		21	0.3		2.99	29.70	28.50	0.34
12	4.37	7.90	4.35	7.1			7.0											21	0.4	30				
13	4.13	6.50	4.12	7.0	311	330	7.0	7		98	240		2		99	69		21	0.5	3				
14	3.86	6.80	3.85	7.0			7.0											20	0.5					
15	3.94	7.00	3.94						9			313		4			155	20	0.4					
16	4.38	8.50	4.38															20	0.3					
17	3.97	6.70	3.95	6.9	260	286	7.1	11		96	363		6		98	198		21	0.5	14				
18	4.01	6.00	4.00	10.0	286	318	7.0	10		97	333		7		98	233		20	0.5		3.60	28.60	27.60	0.30
19	3.98	8.00	3.97	10.0			7.1											21	0.6	6				
20	4.00	8.00	3.98	7.0	354	342	7.2	15		96	498		6		98	199		21	0.6	220				
21	3.65	6.50	3.63	6.9			7.2											21	0.4					
22	3.80	8.30	3.80						12			398		6			210	21	0.4					
23	4.16	8.50	4.15		573	812		11		98	381		5		99	173		20	0.4					
24	3.99	8.00	3.98	7.0			7.2											20	0.7	11				
25	3.90	7.50	3.88	7.1	254	285	7.3	10		96	324		4		99	129		20	0.5		2.15	31.40	29.30	0.32
26	3.48	7.00	3.46	7.1			7.1											20	0.7	3				
27	3.78	8.30	3.76	7.0	342	410	7.0	9		97	282		3		99	94		21	0.6	5				
28	3.73	7.30	3.71	7.1			7.2											21	0.4					
29	3.71	8.70	3.71						10			329		4			132	21	0.3					
30	4.24	8.20	4.24		289	232		10		97	354		6		97	212		21	0.4					
31	4.29	7.90	4.27	7.1			7.2											21	0.4	5				
Max	4.57	9.50	4.55	10.0	573	812	7.4	15	12	98	498	398	7	6	99	246	210	22	0.7	220				
Min	3.48		3.46	6.8	254	232	7.0	6		96	193		2		97	64		20	0.3	<1				
Avg	3.99		3.98		323	356		9		97	319		4		99	149		21	0.43	10				
Sum	123.67		123.31																					

PLANT EFFLUENT PERMIT

May 1 -> October 31

November 1 -> April 30

January 1 -> December 31

MONTHLY STANDARDS

BOD 20 mg/l / 1400 lbs BOD

30 mg/l / 3100 lbs

CL2 max

0.7 mg/l

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

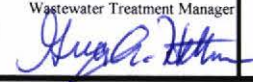
126 cts/100 ml

REMARKS

Nutrients are sampled May 1 -> October 31

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

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				
	mg/l	lbs/day		mg/l	lbs/day		Feed Sludge				
S S	356	12118	SS	96	3288		Flow gal/day	Total Solids %	Volatile Content %		
BOD5	323	10992	BOD5	153	5211	53	11225	15.00	84.6		
Detent Time hrs			Population Equivalent		Flow mgd	Precip "	Detention Time days		Loading lbs VS / ft3 /day		
2.8			54962		3.99	0.6	32				
SECONDARY TREATMENT											
Influent			Effluent			Rem %					
	mg/l	lbs/day		mg/l	lbs/day						
S S	356	12118	SS	4	149						
BOD5	323	10992	BOD5	9	319	99	Total Solids %	Volatile Content %		Vol Sol Reduct %	
F/M		SVI		SRT days	MLSS mg/l	97	2.50	65.2			
0.00		133		0.0	1580		Total Solids (TWS) %	Capture %		Filtrate Solids mg/l	
							4.79				
RAS Flow mgd			CL2 Res mg/l		CL2 Feed lbs/day	Sludge Hauled					
0.68			0.4		116	gal/day lbs /day lbs/mo					
WAS Flow mgd			Aerator Detention Time hrs		Aerator DO mg/l	Digst 4063 847					
.000			8.8		0.0	TWS 7506 3000					
						Total 11570 3847					

Page 1									
Date	Plant Effluent Nutrients				Flow		Weather		
Aug-09	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	"
08/01/09					1.18	2.83	100	64	0.00
08/02/09					1.26	2.93	101	60	0.00
08/03/09					1.17	2.83	91	58	0.00
08/04/09	2.10	26.20	0.42	28.60	1.14	2.78	92	55	0.00
08/05/09					1.11	2.69	82	60	0.00
08/06/09					1.13	2.75	73	60	0.00
08/07/09					1.08	2.56	73	59	0.00
08/08/09					1.17	2.70	83	62	0.00
08/09/09					1.29	2.92	90	53	0.00
08/10/09					1.19	3.02	82	60	0.00
08/11/09	2.99	28.50	0.34	29.70	1.48	3.09	86	63	0.60
08/12/09					1.34	3.02	87	53	0.00
08/13/09					1.27	2.86	75	53	0.00
08/14/09					1.11	2.75	71	54	0.00
08/15/09					1.18	2.76	74	54	0.00
08/16/09					1.36	3.02	81	56	0.00
08/17/09					1.15	2.82	92	59	0.00
08/18/09	3.60	27.60	0.30	28.60	1.17	2.84	94	59	0.00
08/19/09					1.18	2.80	102	61	0.00
08/20/09					1.21	2.79	93	61	0.00
08/21/09					1.08	2.57	80	56	0.00
08/22/09					1.13	2.67	83	49	0.00
08/23/09					1.30	2.86	80	47	0.00
08/24/09					1.21	2.78	82	52	0.00
08/25/09	2.15	29.30	0.32	31.40	1.18	2.73	75	48	0.00
08/26/09					1.22	2.26	85	52	0.00
08/27/09					1.15	2.63	97	55	0.00
08/28/09					1.12	2.61	83	60	0.00
08/29/09					1.15	2.57	82	61	0.00
08/30/09					1.38	2.86	83	59	0.00
08/31/09					1.42	2.86	80	52	0.00
Max	3.60	29.30	0.42	31.40	1.48	3.09	102	64	0.60
Min	2.10	26.20	0.30	28.60	1.08	2.26	71	47	0.00
Avg					1.21	2.78	85	57	0.02
Sum					37.5	86.2			0.60

[illegible]

Page 6													
	Digester No. 1								Digester No. 2				Digested
	Date Aug-09	Alk mg/l	Vol Acids mg/l	pH	Tmp oF	CO2 %	Heat in oF	Exch out oF	Tot Sol %	Vol Sol %	Vol Cntnt %	Tmp oF	Gal Haul
08/01/09				99.0			101.0	99.0	2.48	1.63	66	96.0	0
08/02/09				99.3			99.3	99.5				96.1	0
08/03/09	4980	60		99.0			99.0	98.9	2.52	1.63	65	96.1	6300
08/04/09				99.4			99.4	99.3				96.1	6300
08/05/09				99.2			99.1	99.3				95.6	6300
08/06/09				99.1			99.3	99.2				95.9	12600
08/07/09				100.0			98.0	105.0				96.0	6300
08/08/09				99.0			95.0	95.0				96.0	0
08/09/09				100.0			97.0	92.0				96.0	0
08/10/09	5040	78		99.2			99.2	104.5				95.1	6300
08/11/09				99.0			99.1	103.8				95.0	6300
08/12/09				99.4			99.2	103.9				95.1	8700
08/13/09				99.8			99.9	99.8				95.3	6000
08/14/09				100.0			98.0	99.0				96.0	0
08/15/09				99.0			98.0	99.0				96.0	0
08/16/09				99.1			99.2	99.0				95.6	0
08/17/09	4980	45		99.2			99.2	99.3				95.6	6300
08/18/09				99.2			99.2	99.3				95.5	6300
08/19/09				99.4			99.4	99.5				95.4	6300
08/20/09				99.4			99.3	99.5				95.5	6300
08/21/09				100.0			99.0	99.0				96.0	6300
08/22/09				100.0			99.0	99.0				95.0	0
08/23/09				99.2			99.1	99.3				95.1	0
08/24/09	4920	55		99.1			99.1	103.8				95.2	4160
08/25/09				99.4			99.4	104.1				95.0	6300
08/26/09				99.5			99.1	104.8				95.3	6300
08/27/09				99.0			99.0	104.0				95.0	0
08/28/09				99.0			99.0	104.0				95.0	6300
08/29/09				99.0			99.0	104.0				95.0	0
08/30/09				99.0			98.0	104.0				95.0	0
08/31/09	4890	68		99.8			99.7	104.7				94.8	6300
Max	5040	78		100	0		101	105	2.52	1.63	66	96	12600
Min	4890	45		99	0		95	92	2.48	1.63	65	95	0
Avg				99.3			99	101	2.50	1.63	65.2	95.5	4063

Page 8	NPDES Peak Mass Limits										
Date	Total			Instantaneous		DML=9382 lbs			DML=4153 lbs		
Aug-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
08/01/09	1.2	2.8	4.0	9.1					9.1		
08/02/09	1.3	2.9	4.2	7.5					7.5	280	105
08/03/09	1.2	2.8	4.0	7.0					7.0		
08/04/09	1.1	2.8	3.9	6.2					6.2	195	65
08/05/09	1.1	2.7	3.8	7.0					7.0		
08/06/09	1.1	2.8	3.9	6.5					6.5	193	64
08/07/09	1.1	2.6	3.6	7.2					7.2		
08/08/09	1.2	2.7	3.9	7.8					7.8		
08/09/09	1.3	2.9	4.2	9.0					9.0	281	246
08/10/09	1.2	3.0	4.2	9.5					9.5		
08/11/09	1.5	3.1	4.6	9.5					9.5	417	152
08/12/09	1.3	3.0	4.4	7.9					7.9		
08/13/09	1.3	2.9	4.1	6.5					6.5	240	69
08/14/09	1.1	2.7	3.9	6.8					6.8		
08/15/09	1.2	2.8	3.9	7.0					7.0		
08/16/09	1.4	3.0	4.4	8.5					8.5		
08/17/09	1.2	2.8	4.0	6.7					6.7	363	198
08/18/09	1.2	2.8	4.0	6.0					6.0	333	233
08/19/09	1.2	2.8	4.0	8.0					8.0		
08/20/09	1.2	2.8	4.0	8.0					8.0	498	199
08/21/09	1.1	2.6	3.7	6.5					6.5		
08/22/09	1.1	2.7	3.8	8.3					8.3		
08/23/09	1.3	2.9	4.2	8.5					8.5	381	173
08/24/09	1.2	2.8	4.0	8.0					8.0		
08/25/09	1.2	2.7	3.9	7.5					7.5	324	129
08/26/09	1.2	2.3	3.5	7.0					7.0		
08/27/09	1.1	2.6	3.8	8.3					8.3	282	94
08/28/09	1.1	2.6	3.7	7.3					7.3		
08/29/09	1.1	2.6	3.7	8.7					8.7		
08/30/09	1.4	2.9	4.2	8.2					8.2	354	212
08/31/09	1.4	2.9	4.3	7.9					7.9		
Max	1.5	3.1	4.6	9.5		N/A	N/A	N/A	9.5	498	246
Min	1.1	2.3	3.5								
Avg	1.2	2.8	4.0								
Sum	38	86	124			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: 9/11/2009
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	
8/1/2009	1.18	2.83	100	64	0.00
8/2/2009	1.26	2.93	101	60	0.00
8/3/2009	1.17	2.83	91	58	0.00
8/4/2009	1.14	2.78	92	55	0.00
8/5/2009	1.11	2.69	82	60	0.00
8/6/2009	1.13	2.75	73	60	0.00
8/7/2009	1.08	2.56	73	59	0.00
8/8/2009	1.17	2.70	83	62	0.00
8/9/2009	1.29	2.92	90	53	0.00
8/10/2009	1.19	3.02	82	60	0.00
8/11/2009	1.48	3.09	86	63	0.60
8/12/2009	1.34	3.02	87	53	0.00
8/13/2009	1.27	2.86	75	53	0.00
8/14/2009	1.11	2.75	71	54	0.00
8/15/2009	1.18	2.76	74	54	0.00
8/16/2009	1.36	3.02	81	56	0.00
8/17/2009	1.15	2.82	92	59	0.00
8/18/2009	1.17	2.84	94	59	0.00
8/19/2009	1.18	2.80	102	61	0.00
8/20/2009	1.21	2.79	93	61	0.00
8/21/2009	1.08	2.57	80	56	0.00
8/22/2009	1.13	2.67	83	49	0.00
8/23/2009	1.30	2.86	80	47	0.00
8/24/2009	1.21	2.78	82	52	0.00
8/25/2009	1.18	2.73	75	48	0.00
8/26/2009	1.22	2.26	85	52	0.00
8/27/2009	1.15	2.63	97	55	0.00
8/28/2009	1.12	2.61	83	60	0.00
8/29/2009	1.15	2.57	82	61	0.00
8/30/2009	1.38	2.86	83	59	0.00
8/31/2009	1.42	2.86	80	52	0.00
Max	1.48	3.09	102	64	0.60
Min	1.08	2.26	71	47	0.00
Avg	1.21	2.78	85	57	0.02
SUM	37.50	86.16			0.60