



CITY OF PORTLAND ENVIRONMENTAL SERVICES

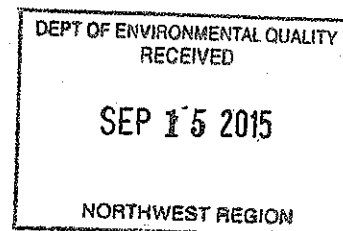


Tryon Creek Wastewater Treatment Plant

195 SW Foothills Road, Bldg 310, Lake Oswego, Oregon 97034 ■ Nick Fish, Commissioner ■ Michael Jordan, Director

September 15, 2015

Mr. Mark W. Hynson
DEQ Northwest Region Office
700 NE Multnomah Street
Suite No. 600
Portland, Oregon 97232



Dear Mr. Hynson:

I am enclosing the August 2015 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 823-2466 if you have any questions.

Sincerely,

Tuong Nguyen
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
TREATMENT SYSTEM
COLLECTION SYSTEM

MAJOR BASIN
RECEIVING STREAM
COUNTY

WILLAMETTE
WILLAMETTE
CLACKAMAS

POPULATION EQUIVALENT 43,996
PERMIT NUMBER 101614
FILE NUMBER 70735
EXPIRATION 9/30/2009

DATE	FLOW				PLANT INFLUENT										PLANT EFFLUENT									
	INF	INF	INF	EFF	pH	BOD	TSS	pH	BOD	BOD	BOD	BOD	TSS	TSS	TSS	TSS	TSS	Wkly Avg	Wkly Avg	Wkly Avg	Wkly Avg	Wkly Avg	Wkly Avg	Wkly Avg
Aug-15	mgd	mgd	mgd	mgd		mg/l	mg/l		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
1	3.46	6.50	3.46	3.46		353	365		23	13	13	415	16	41	96	502	335	22	22	22	22	22	22	22
2	3.76	6.50	3.76	3.76	7.5	289	285	6.8	16	10	10	496	10	96	96	310	310	22	22	22	22	22	22	22
3	3.79	6.50	3.77	3.77	7.5	289	285	6.7	16	10	10	496	10	96	96	310	310	22	22	22	22	22	22	22
4	3.74	6.50	3.72	3.72	7.5	297	342	6.9	13	15	15	394	12	96	96	364	364	21	21	21	21	21	21	21
5	3.54	6.50	3.51	3.51	7.4	314	304	6.8	15	15	15	445	13	98	98	392	392	22	22	22	22	22	22	22
6	3.65	6.50	3.63	3.63		265	284	6.7	12	12	12	363	7	98	98	212	212	22	22	22	22	22	22	22
7	3.46	6.50	3.45	3.45		194	156	6.6	8	8	8	247	5	97	97	154	154	22	22	22	22	22	22	22
8	3.68	6.70	3.68	3.68		307	354	7.0	6	12	12	364	6	98	98	191	186	21	21	21	21	21	21	21
9	3.85	6.80	3.85	3.85		311	292	7.1	6	12	12	364	6	98	98	191	186	22	22	22	22	22	22	22
10	3.73	6.20	3.71	3.71	7.9	265	284	6.8	12	12	12	363	7	98	98	212	212	22	22	22	22	22	22	22
11	3.65	6.40	3.62	3.62	7.8	194	156	6.7	8	8	8	247	5	97	97	154	154	22	22	22	22	22	22	22
12	3.63	6.70	3.61	3.61	7.5	194	156	6.6	8	8	8	247	5	97	97	154	154	22	22	22	22	22	22	22
13	3.72	6.50	3.70	3.70	7.8	194	156	6.7	8	8	8	247	5	97	97	154	154	22	22	22	22	22	22	22
14	3.33	6.10	3.31	3.31	7.6	194	156	7.0	6	12	12	364	6	98	98	191	186	22	22	22	22	22	22	22
15	3.49	6.30	3.48	3.48		307	354		6	12	12	364	6	98	98	191	186	22	22	22	22	22	22	22
16	3.83	7.50	3.81	3.81		311	292	7.1	6	12	12	364	6	98	98	191	186	22	22	22	22	22	22	22
17	3.71	7.40	3.69	3.69	7.6	311	292	7.3	9	9	9	277	10	97	97	308	308	22	22	22	22	22	22	22
18	3.71	6.50	3.69	3.69	7.6	311	292	7.2	9	9	9	277	10	97	97	308	308	22	22	22	22	22	22	22
19	3.50	6.90	3.48	3.48	7.7	246	294	7.2	6	6	6	177	4	99	99	118	118	22	22	22	22	22	22	22
20	3.56	7.00	3.54	3.54	7.7	246	294	7.2	6	6	6	177	4	99	99	118	118	22	22	22	22	22	22	22
21	3.51	6.50	3.49	3.49	7.8	246	294	7.3	6	6	6	177	4	99	99	118	118	22	22	22	22	22	22	22
22	3.54	6.90	3.52	3.52		301	357		8	8	8	559	8	98	98	248	206	21	21	21	21	21	21	21
23	3.74	6.70	3.72	3.72	6.7	301	357	6.7	18	18	18	559	8	98	98	248	206	22	22	22	22	22	22	22
24	3.66	6.40	3.64	3.64	7.9	251	306	7.2	12	12	12	359	8	97	97	240	240	21	21	21	21	21	21	21
25	3.60	6.80	3.59	3.59	7.9	251	306	7.1	12	12	12	359	8	97	97	240	240	22	22	22	22	22	22	22
26	3.67	6.50	3.64	3.64	7.8	284	320	7.1	12	12	12	362	8	98	98	241	241	22	22	22	22	22	22	22
27	3.64	6.50	3.62	3.62	7.8	284	320	7.1	12	12	12	362	8	98	98	241	241	22	22	22	22	22	22	22
28	3.62	6.00	3.60	3.60	7.6	310	342	7.1	9	14	14	427	5	99	99	195	243	22	22	22	22	22	22	22
29	4.02	8.00	4.02	4.02		310	342		9	14	14	427	5	99	99	195	243	22	22	22	22	22	22	22
30	4.68	9.80	4.68	4.68	7.4	314	365	6.7	18	15	15	559	16	99	99	502	392	22	22	22	22	22	22	22
31	4.06	7.10	4.04	4.04	7.4	314	365	7.3	18	15	15	559	16	99	99	502	392	22	22	22	22	22	22	22
Max	4.68	9.80	4.68	4.68	7.9	314	365	7.3	18	15	15	559	16	99	99	502	392	22	22	22	22	22	22	22
Min	3.33	6.10	3.31	3.31	6.7	194	156	6.6	6	12	12	364	6	98	98	191	186	22	22	22	22	22	22	22
Avg	3.69	6.50	3.68	3.68		278	308		12	12	12	370	8	97	97	252	252	22	22	22	22	22	22	22
Sum	114.52	114.52	114.02	114.02		278	308		12	12	12	370	8	97	97	252	252	22	22	22	22	22	22	22

PLANT EFFLUENT PERMIT MONTHLY STANDARDS BOD 20 mg/l / 1400 lbs TSS 20 mg/l / 1400 lbs E. COLI 126 cfs/100 ml EFF 114.02		May 1 -> October 31 November 1 -> April 30 January 1 -> December 31 CL2 Average 0.7 mg/l daily pH range 6.0 -> 9.0		REMARKS Nutrients are sampled May 1 -> October 31 Digested and TWAS sludge are hauled to Columbia Blvd Treatment Plant. ☐ yes ☐ no During this reporting period did all monitoring data and sampling frequencies meet permit requirements and limits? If "no," explain. ☐ yes ☐ no During this reporting period were there unanticipated bypasses or upsets which exceeded any effluent limits? If "yes," explain. ☐ yes ☐ no During this reporting period were there any sewer system overflows? If "yes," explain. * BOD samples for August 2nd and 16th are considered estimates due to QC failures. The August 2nd set had high blanks and the August 16th set failed the check standard.	
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 Tuong Nguyen CLASS Oregon TIV #10633 TITLE Wastewater Treatment Manager SIGNATURE			

Page 1												
	Plant Effluent Nutrients						Flow		Weather			
	Date	Total P mg/l	NH3-N mg/l	NO3-N mg/l	NO2-N mg/l	TKN mg/l	Portland mgd	Lake Oswego mgd	Temperature		Precip "	
									Max o F	Min o F		
Aug-15												
08/01/15							1.02	2.44			0.00	
08/02/15							1.14	2.62			0.00	
08/03/15							1.11	2.68			0.00	
08/04/15		3.58	4.39	14.68	8.66		1.09	2.65			0.00	
08/05/15							1.04	2.50			0.00	
08/06/15							1.09	2.56			0.00	
08/07/15							1.01	2.45			0.00	
08/08/15							1.08	2.60			0.00	
08/09/15							1.16	2.69			0.00	
08/10/15							1.10	2.64			0.00	
08/11/15		2.03	2.37	15.64	4.54		1.07	2.58			0.00	
08/12/15							1.06	2.57			0.00	
08/13/15							1.09	2.63			0.00	
08/14/15							0.98	2.35			0.00	
08/15/15							1.04	2.45			0.00	
08/16/15							1.17	2.65			0.00	
08/17/15							1.12	2.60			0.00	
08/18/15		0.50	14.30	7.85	18.50		1.09	2.63			0.00	
08/19/15							1.02	2.48			0.00	
08/20/15							1.05	2.51			0.00	
08/21/15							1.02	2.49			0.00	
08/22/15							1.05	2.49			0.00	
08/23/15							1.18	2.57			0.00	
08/24/15							1.07	2.60			0.00	
08/25/15		0.54	12.30	11.84	14.90		1.08	2.52			0.00	
08/26/15							1.12	2.54			0.00	
08/27/15							1.10	2.54			0.00	
08/28/15							1.11	2.51			0.00	
08/29/15							1.27	2.75			0.88	
08/30/15							1.45	3.23			0.02	
08/31/15							1.25	2.81			0.00	
Max		3.58	14.30	15.64	18.50		1.45	3.23	0	0	0.88	
Min		0.50	2.37	7.85	4.54		0.98	2.35	0	0	0.00	
Avg							1.10	2.59			0.03	
Sum							34.2	80.3			0.90	

Page 4	PLANT EFFLUENT											E. COLI					
	Date Aug-15	FLOW		SUS SOL		BOD5		CL2		Res mg/day	3	G Ave	Temp	pH	BYPASS		
		mgd	lbs	% Rem	mg/l	lbs	% Rem	Contact hrs	Feed lbs/day								
																6	3
08/01/15	3.46	16	502	96	*	23	4.9	248	0.43	4	22.0	0.00					
08/02/15	3.76						4.5	286	0.58		21.7	0.00					
08/03/15	3.77						4.5	255	0.45	2	21.8	6.8					
08/04/15	3.72	10	310	96	16	496	4.5	254	0.37		21.6	6.7					
08/05/15	3.51						4.8	247	0.71	4	21.6	6.9					
08/06/15	3.63	12	364	96	13	394	4.6	251	0.33	2	21.3	6.9					
08/07/15	3.45						4.9	232	0.38		21.6	6.8					
08/08/15	3.68						4.6	229	0.43	3	21.6	0.00					
08/09/15	3.85	6	193	98	15	482	4.4	270	0.52		21.7	0.00					
08/10/15	3.71						4.5	238	0.37	1	21.8	6.7					
08/11/15	3.62	7	212	98	12	363	4.6	259	0.38		21.9	6.8					
08/12/15	3.61						4.7	212	0.37	6	22.2	6.6					
08/13/15	3.70	5	154	97	8	247	4.6	224	0.42	1	22.2	6.7					
08/14/15	3.31						5.1	213	0.36		21.6	7.0					
08/15/15	3.48						4.8	205	0.49		21.4	0.00					
08/16/15	3.81	6	191	98	*	6	4.4	255	0.58		21.5	0.00					
08/17/15	3.69						4.6	234	0.44	1	21.6	7.1					
08/18/15	3.69	10	308	97	9	277	4.6	253	0.25		21.6	7.3					
08/19/15	3.48						4.8	186	0.44	3	22.1	7.2					
08/20/15	3.54	4	118	99	6	177	4.8	221	0.49	1	21.7	7.2					
08/21/15	3.49						4.8	220	0.52		21.4	7.3					
08/22/15	3.52						4.8	128	0.62	1	21.4	0.00					
08/23/15	3.72	8	248	98	18	559	4.5	260	0.39		21.5	0.00					
08/24/15	3.64						4.6	111	0.65	2	21.3	6.7					
08/25/15	3.59	8	240	97	12	359	4.7	229	0.44		21.3	7.2					
08/26/15	3.64						4.6	246	0.47	1	21.5	7.1					
08/27/15	3.62	8	241	98	12	362	4.7	242	0.35	2	21.7	7.1					
08/28/15	3.60						4.7	102	0.45		22.0	7.1					
08/29/15	4.02						4.2	311	0.31	2	21.5	0.00					
08/30/15	4.68	5	195	99	9	351	3.6	286	0.33		21.4	0.00					
08/31/15	4.04						4.2	249	0.39	1	21.5	6.7					
Max	4.68	16	502	99	18	559	5.1	311	0.71	6	22.2	7.3					
Min	3.31	4.0	118	96	6	177	3.6	102	0.25	1	21.3	6.6					
Avg	3.68	8	252	97	12	370	4.6	231	0.44	3	2	21.6					
Sum	114.0											0.00					

Page 8		NPDES Peak Mass Limits										
Date	Aug-15	Total			Instantaneous		DML=9382 lbs			DML=4153 lbs		
		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
08/01/15		1.0	2.4	3.5	6.5					6.5		502
08/02/15		1.1	2.6	3.8	6.5					6.5		
08/03/15		1.1	2.7	3.8	6.5					6.5		
08/04/15		1.1	2.6	3.7	6.5					6.5	496	310
08/05/15		1.0	2.5	3.5	6.5					6.5		
08/06/15		1.1	2.6	3.7	6.5					6.5	394	364
08/07/15		1.0	2.5	3.5	6.5					6.5		
08/08/15		1.1	2.6	3.7	6.7					6.7		
08/09/15		1.2	2.7	3.9	6.8					6.8	482	193
08/10/15		1.1	2.6	3.7	6.2					6.2		
08/11/15		1.1	2.6	3.6	6.4					6.4	363	212
08/12/15		1.1	2.6	3.6	6.7					6.7		
08/13/15		1.1	2.6	3.7	6.5					6.5	247	154
08/14/15		1.0	2.4	3.3	6.1					6.1		
08/15/15		1.0	2.5	3.5	6.3					6.3		
08/16/15		1.2	2.7	3.8	7.5					7.5		191
08/17/15		1.1	2.6	3.7	7.4					7.4		
08/18/15		1.1	2.6	3.7	6.5					6.5	277	308
08/19/15		1.0	2.5	3.5	6.9					6.9		
08/20/15		1.1	2.5	3.6	7.0					7.0	177	118
08/21/15		1.0	2.5	3.5	6.5					6.5		
08/22/15		1.1	2.5	3.5	6.9					6.9		
08/23/15		1.2	2.6	3.7	6.7					6.7	559	248
08/24/15		1.1	2.6	3.7	6.4					6.4		
08/25/15		1.1	2.5	3.6	6.8					6.8	359	240
08/26/15		1.1	2.5	3.7	6.5					6.5		
08/27/15		1.1	2.5	3.6	6.5					6.5	362	241
08/28/15		1.1	2.5	3.6	6.0					6.0		
08/29/15		1.3	2.7	4.0	8.0					8.0		
08/30/15		1.4	3.2	4.7	9.8					9.8	351	195
08/31/15		1.3	2.8	4.1	7.1					7.1		
Max		1.4	3.2	4.7	9.8		N/A	N/A	N/A	9.8	559	502
Min		1.0	2.4	3.3								
Avg		1.1	2.6	3.7			N/A	N/A	N/A			
Sum		34	80	115								

MONTHLY REPORT SUMMARY									
PRIMARY TREATMENT				Rem		Primary			
Influent		Effluent				Feed Sludge			
mg/l	lbs/day	mg/l	lbs/day	%		Flow gal/day	Total Solids %	Volatile Content %	
SS	308	103	3235	67		17104	6.93		
BOD5	278	136	4277	51					
Detent Time hrs		Population Equivalent		Precip "		Detention Time days		Loading lbs VS / ft3 / day	
4.3		43996		0.9		21			
SECONDARY TREATMENT									
Influent		Effluent		Rem		Total Solids		Volatile Content	
mg/l	lbs/day	mg/l	lbs/day	%		%	%	%	
SS	308	8	252	97		2.22		69.8	
BOD5	278	12	370	96					
F/M	SVI	SRT days		MLSS mg/l		Total Solids (TWS) %		Capture %	
0.28	130	0.0		1249		4.49			
RAS Flow mgd		CL2 Res mg/l		CL2 Feed lbs/day		Sludge Hauled gal/day		lbs/mo	
0.00		0.4		231		5948		1101	
WAS Flow mgd		Aerator Detention Time hrs		Aerator DO mg/l		10000		3748	
.000		9.6		0.0		15948		4850	
						Total			

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: 9/14/2015
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	
8/1/2015	1.02	2.44			0.00
8/2/2015	1.14	2.62			0.00
8/3/2015	1.11	2.68			0.00
8/4/2015	1.09	2.65			0.00
8/5/2015	1.04	2.50			0.00
8/6/2015	1.09	2.56			0.00
8/7/2015	1.01	2.45			0.00
8/8/2015	1.08	2.60			0.00
8/9/2015	1.16	2.69			0.00
8/10/2015	1.10	2.64			0.00
8/11/2015	1.07	2.58			0.00
8/12/2015	1.06	2.57			0.00
8/13/2015	1.09	2.63			0.00
8/14/2015	0.98	2.35			0.00
8/15/2015	1.04	2.45			0.00
8/16/2015	1.17	2.65			0.00
8/17/2015	1.12	2.60			0.00
8/18/2015	1.09	2.63			0.00
8/19/2015	1.02	2.48			0.00
8/20/2015	1.05	2.51			0.00
8/21/2015	1.02	2.49			0.00
8/22/2015	1.05	2.49			0.00
8/23/2015	1.18	2.57			0.00
8/24/2015	1.07	2.60			0.00
8/25/2015	1.08	2.52			0.00
8/26/2015	1.12	2.54			0.00
8/27/2015	1.10	2.54			0.00
8/28/2015	1.11	2.51			0.00
8/29/2015	1.27	2.75			0.88
8/30/2015	1.45	3.23			0.02
8/31/2015	1.25	2.81			0.00
Max	1.45	3.23			0.88
Min	0.98	2.35			0.00
Avg	1.10	2.59			0.03
SUM	34.21	80.31			0.90