Washington State Department of Ecology **Discharge Monitoring Report (DMR)**

Permit Number: WA0029181 **Permittee:** King County West Point WWTP

Facility County: King **Receiving Waterbody:** Puget Sound

Monitoring Period: 05/01/2017 - 05/31/2017 **Outfall:** 001 - PUGET SOUND (CENTRAL) **Version:** 1

Week	Monitoring Point	Total BOD5 Total Milligrams/L (mg/L) Weekly Composite sample (24 hour)	Total BOD5 Total Lbs/Day Weekly Calculated	Total CBOD5 Total Milligrams/L (mg/L) 1/Day Composite sample (24 hour)	Total CBOD5 Total Lbs/Day 1/Day Calculated	Solids (Residue) Total suspended (TSS) Milligrams/L (mg/L) 1/Day Composite sample (24 hour)	Solids (Residue) Total suspended (TSS) Lbs/Day 1/Day Calculated	Flow Million Gallons/Day Continuous Metered/Recorded	Total CBOD5 Total Milligrams/L (mg/L) 1/Day Composite sample (24 hour)	Total CBOD5 Total Lbs/Day 1/Day Calculated	Total CBOD5 Total Percent Monthly Calculated	Solids (Residue) Total suspended (TSS) Milligrams/L (mg/L) 1/Day Composite sample (24 hour)
		IN1	IN1	IN1	IN1	IN1	IN1	001	001	001	001	001
1-M	5/1/17	204	141383	184	127522	189	130987	83.10	23	15940	87.5	48
1-T	5/2/17	233	158372	200	135942	196	133223	81.50	21	14274	89.5	43
1-W	5/3/17	188	214225	166	189156	182	207388	136.63	24	27348	85.5	42
1-Th	5/4/17	223	219980	187	184467	224	220966	118.28	22	21702	88.2	41
1-F	5/5/17	149	177626	130	154976	241	287301	142.94	11	13113	91.5	21
1-Sa	5/6/17	200	197741	164	162148	215	212572	118.55	10	9887	93.9	21
2-Su	5/7/17	223	156969	180	126701	200	140779	84.40	10	7039	94.4	18
2-M	5/8/17	266	185639	202	140974	250	174473	83.68	10	6979	95.0	19
2-T	5/9/17	323	215506	257	171470	400	266880	80.00	11	7339	95.7	23
2-W	5/10/17	264	175436	233	154836	296	196701	79.68	8	5316	96.6	15
2-Th	5/11/17	354	319357	303	273348	332	299510	108.17	12	10826	96.0	14
2-F	5/12/17	313	243578	217	168871	308	239687	93.31	8	6226	96.3	11
2-Sa	5/13/17	245	205944	204	171480	222	186611	100.79	7	5884	96.6	10
3-Su	5/14/17	262	193030	226	166507	248	182715	88.34	8	5894	96.5	11
3-M	5/15/17	243	213646	196	172324	256	225076	105.42	9	7913	95.4	14
3-T	5/16/17	169	234703	133	184707	178	247202	166.52	8	11110	94.0	12
3-W	5/17/17	213	168831	205	162490	186	147430	95.04	7	5548	96.6	9
3-Th	5/18/17	201	147769	164	120568	224	164678	88.15	4	2941	97.6	8
3-F	5/19/17	184	132371	143	102875	174	125177	86.26	5	3597	96.5	8
3-Sa	5/20/17	208	145682	184	128872	192	134475	83.98	7	4903	96.2	9
4-Su	5/21/17	224	154198	177	121844	195	134235	82.54	6	4130	96.6	9
4-M	5/22/17	243	168230	206	142615	246	170307	83.01	7	4846	96.6	11
4-T	5/23/17	241	164855	215	147070	224	153226	82.02	9	6156	95.8	12
4-W	5/24/17	282	191467	223	151408	278	188751	81.41	8	5432	96.4	11
4-Th	5/25/17	303	200443	246	162736	300	198459	79.32	6	3969	97.6	9
4-F	5/26/17	273	188202	185	127536	280	193028	82.66	6	4136	96.8	7
4-Sa	5/27/17	358	226974	245	155332	318	201614	76.02	5	3170	98.0	7
5-Su	5/28/17	342	210612	194	119470	300	184748	73.84	6	3695	96.9	8
5-M	5/29/17	307	196253	225	143834	340	217349	76.65	5	3196	97.8	9
5-T	5/30/17	334	222399	225	149820	356	237048	79.84	7	4661	96.9	11
5-W	5/31/17	322	212153	235	154832	298	196340	79.00	8	5271	96.6	10
Daily Minimum												
Average		254.645	193019	201.742	154088	253.161	193514	93.5823	9.6129	7820.68	95	16.1613
		Report Only	DL: 201000	Report Only	Report Only	Report Only	DL: 218000	DL: 215	<= 25	<= 44800	>= 85	<= 30
Weekly Average									19	16434		35
									<= 40	<= 71700		<= 45
Maximum		358	319357	303	273348	400	299510	166.52				
		Report Only	Report Only	Report Only	Report Only	Report Only	Report Only	Report Only				
Daily Maximum												
Monthly geometric mean												
Weekly Geometric Mean												

Week	Monitoring Point	Solids (Residue) Total suspended (TSS) Lbs/Day 1/Day Calculated	Solids (Residue) Total suspended (TSS) Percent Monthly Calculated	pH Daily Min Standard Units Continuous Metered/Recorded	pH Daily Max Standard Units Continuous Metered/Recorded	Total Residual Chlorine Total residual Micrograms/L (ug/L) Continuous Metered/Recorded	Fecal Coliform #/100ml 1/Day Grab	Ammonia Total Milligrams/L (mg/L) Monthly Composite sample (24 hour)	Ammonia Total Lbs/Day Monthly Calculated	Nitrate + Nitrite Total Milligrams/L (mg/L) Monthly Composite sample (24 hour)	TKN Total Milligrams/L (mg/L) Monthly Composite sample (24 hour)	Phosphorus Total Milligrams/L (mg/L) Monthly Composite sample (24 hour)
		001	001	001	001	001	001	001	001	001	001	001
1-M	5/1/17	33267	74.6	6.4	6.5	60	<1	12.9	8940			
1-T	5/2/17	29228	78.1	6.4	6.5	60	<1	12.5	8496			
1-W	5/3/17	47859	76.9	6.3	6.5	110	40					
1-Th	5/4/17	40445	81.7	6.3	6.5	80	<1					
1-F	5/5/17	25035	91.3	6.3	6.6	280	<1					
1-Sa	5/6/17	20763	90.2	6.3	6.7	70	20					
2-Su	5/7/17	12670	91.0	6.4	6.5	150	<1	12.8	9010		16.5	2.13
2-M	5/8/17	13260	92.4	6.4	6.6	110	<1					
2-T	5/9/17	15346	94.3	6.3	6.6	110	<1					
2-W	5/10/17	9968	94.9	6.4	6.6	40	<1					
2-Th	5/11/17	12630	95.8	6.3	6.6	120	<1					
2-F	5/12/17	8560	96.4	6.4	6.6	40	<1					
2-Sa	5/13/17	8406	95.5	6.4	6.5	110	<1					
3-Su	5/14/17	8104	95.6	6.4	6.8	50	<1	13.9	10241		20.5	2.28
3-M	5/15/17	12309	94.5	6.5	6.6	120	<1			6.48		
3-T	5/16/17	16665	93.3	6.3	6.6	80	70					
3-W	5/17/17	7134	95.2	6.5	6.6	20	<1					
3-Th	5/18/17	5881	96.4	6.3	6.7	30	<1					
3-F	5/19/17	5755	95.4	6.5	6.7	40	20					
3-Sa	5/20/17	6304	95.3	6.5	6.6	110	<1					
4-Su	5/21/17	6195	95.4	6.5	6.6	220	<1				20.3	2.72
4-M	5/22/17	7615	95.5	6.5	6.6	50	<1	13.7	9485			
4-T	5/23/17	8209	94.6	6.5	6.6	80	20					
4-W	5/24/17	7469	96.0	6.5	6.7	80	<1					
4-Th	5/25/17	5954	97.0	6.5	6.7	40	<1					
4-F	5/26/17	4826	97.5	6.5	6.6	50	<1					
4-Sa	5/27/17	4438	97.8	6.4	6.5	50	<1					
5-Su	5/28/17	4927	97.3	6.3	6.5	70	<1					
5-M	5/29/17	5753	97.4	6.3	6.4	80	<1	10.8	6904		14.7	3.10
5-T	5/30/17	7325	96.9	6.3	6.7	110	<1					
5-W	5/31/17	6589	96.6	6.4	6.6	120	<1					
Daily Minimum				6.3								
				>= 6.0 (RO)								
Average		13190	94			88.3871		12.7667	8846	6.48	18	2.5575
		<= 53800	>= 85			<= 139		Report Only	Report Only	Report Only	Report Only	Report Only
Weekly Average		30966										
		<= 80700										
Maximum												
Daily Maximum					6.8	280						
					<= 9.0 (RO)	<= 364 (RO)						
Monthly geometric mean							2					
							<= 200					
Weekly Geometric Mean							3					
							<= 400					

Week	Monitoring Point	Phosphorus Soluble Reactive Milligrams/L (mg/L) Monthly Composite sample (24 hour) 001	Duration Event Hours Once per defined event Metered/Recorded BP01	Volume Event Million Gallons Once per defined event Metered/Recorded BP01	Rainfall Inches Once per defined event Metered/Recorded BP01	Flow Million Gallons/Day Once per defined event Metered/Recorded BP01
1-M	5/1/17	1.37				
1-T	5/2/17					
1-W	5/3/17					
1-Th	5/4/17					
1-F	5/5/17					
1-Sa	5/6/17					
2-Su	5/7/17	1.66				
2-M	5/8/17					
2-T	5/9/17					
2-W	5/10/17					
2-Th	5/11/17					
2-F	5/12/17					
2-Sa	5/13/17					
3-Su	5/14/17	2.00				
3-M	5/15/17					
3-T	5/16/17					
3-W	5/17/17					
3-Th	5/18/17					
3-F	5/19/17					
3-Sa	5/20/17					
4-Su	5/21/17	2.44				
4-M	5/22/17					
4-T	5/23/17					
4-W	5/24/17					
4-Th	5/25/17					
4-F	5/26/17					
4-Sa	5/27/17					
5-Su	5/28/17					
5-M	5/29/17	2.82				
5-T	5/30/17					
5-W	5/31/17					
Daily Minimum						
Average		2.058				
		Report Only				
Weekly Average						
Maximum						
Daily Maximum						
Monthly geometric mean						
Weekly Geometric Mean						

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge

Washington State Department of Ecology **Discharge Monitoring Report (DMR)**

Permit Number: WA0029181 **Permittee:** King County West Point WWTP

Facility County: King **Receiving Waterbody:** Puget Sound

Monitoring Period: 05/01/2017 - 05/31/2017 **Outfall:** 051 **Version:** 1

Week	Monitoring Point	Number of Events Number Summary Only Metered/Recorded	Flow Million Gallons/Day Summary Only Metered/Recorded	Volume Monthly Million Gallons Summary Only Calculated	Total BOD5 Total Milligrams/L (mg/L) Summary Only Composite Sample (24 HR Flow-proportional comp)	Solids (Residue) Total suspended (TSS) Milligrams/L (mg/L) Summary Only Composite Sample (24 HR Flow-proportional comp)	Number of Events Number Summary Only Metered/Recorded	Volume Monthly Million Gallons Summary Only Calculated	Total BOD5 Total Milligrams/L (mg/L) Summary Only Composite Sample (24 HR Flow-proportional comp)	Solids (Residue) Total suspended (TSS) Milligrams/L (mg/L) Summary Only Composite Sample (24 HR Flow-proportional comp)	Solids (Residue) Total suspended (TSS) Percent Summary Only Calculated	Solids (Residue) Settleable Solids Milliliter per liter Summary Only Composite Sample (24 HR Flow-proportional comp)
		IN51	IN51	IN51	IN51	IN51	051	051	051	051	051	051
1-M	5/1/17											
1-T	5/2/17											
1-W	5/3/17											
1-Th	5/4/17	1	0.33	0.33	191	675						
1-F	5/5/17	1	0.47	0.47	16	174						
1-Sa	5/6/17											
2-Su	5/7/17											
2-M	5/8/17											
2-T	5/9/17											
2-W	5/10/17											
2-Th	5/11/17											
2-F	5/12/17											
2-Sa	5/13/17											
3-Su	5/14/17											
3-M	5/15/17											
3-T	5/16/17											
3-W	5/17/17											
3-Th	5/18/17											
3-F	5/19/17											
3-Sa	5/20/17											
4-Su	5/21/17											
4-M	5/22/17											
4-T	5/23/17											
4-W	5/24/17											
4-Th	5/25/17											
4-F	5/26/17											
4-Sa	5/27/17											
5-Su	5/28/17											
5-M	5/29/17											
5-T	5/30/17											
5-W	5/31/17											
Daily Minimum												
Average			0.4		103.5	424.5						
			Report Only		Report Only	Report Only			Report Only	Report Only	Report Only	Report Only
Maximum			0.47		191	675						
			Report Only		Report Only	Report Only			Report Only	Report Only		Report Only
Daily Maximum												

Week	Monitoring Point	Total Residual Chlorine Total residual Micrograms/L (ug/L) Summary Only Metered/Recorded	pH Daily Min Standard Units Summary Only Metered/Recorded	pH Daily Max Standard Units Summary Only Metered/Recorded	Duration CSO Discharge Hours Summary Only Metered/Recorded	Duration Storm event Hours Summary Only Metered/Recorded	Rainfall Inches Summary Only Metered/Recorded	Fecal Coliform #/100ml Summary Only Grab	Total Residual Chlorine Total residual Micrograms/L (ug/L) Summary Only Metered/Recorded	pH Standard Units Summary Only Metered/Recorded	Fecal Coliform #/100ml Summary Only Grab	Total Residual Chlorine Total residual Micrograms/L (ug/L) Summary Only Metered/Recorded
		051	051	051	051	051	051	051A	051A	051A	051B	051B
1-M	5/1/17											
1-T	5/2/17											
1-W	5/3/17											
1-Th	5/4/17											
1-F	5/5/17											
1-Sa	5/6/17											
2-Su	5/7/17											
2-M	5/8/17											
2-T	5/9/17											
2-W	5/10/17											
2-Th	5/11/17											
2-F	5/12/17											
2-Sa	5/13/17											
3-Su	5/14/17											
3-M	5/15/17											
3-T	5/16/17											
3-W	5/17/17											
3-Th	5/18/17											
3-F	5/19/17											
3-Sa	5/20/17											
4-Su	5/21/17											
4-M	5/22/17											
4-T	5/23/17											
4-W	5/24/17											
4-Th	5/25/17											
4-F	5/26/17											
4-Sa	5/27/17											
5-Su	5/28/17											
5-M	5/29/17											
5-T	5/30/17											
5-W	5/31/17											
Daily Minimum			>= 6.0 (RO)									
Average		Report Only										
Maximum												
Daily Maximum		<= 234 (RO)		<= 9.0 (RO)								

Week	Monitoring Point	pH Standard Units Summary Only Metered/Recorded	Fecal Coliform #/100ml Summary Only Grab	Total Residual Chlorine Total residual Micrograms/L (ug/L) Summary Only Metered/Recorded	pH Standard Units Summary Only Metered/Recorded	Fecal Coliform #/100ml Summary Only Grab	Total Residual Chlorine Total residual Micrograms/L (ug/L) Summary Only Metered/Recorded	pH Standard Units Summary Only Metered/Recorded	Fecal Coliform #/100ml Summary Only Grab	Total Residual Chlorine Total residual Micrograms/L (ug/L) Summary Only Metered/Recorded	pH Standard Units Summary Only Metered/Recorded
		051B	051C	051C	051C	051D	051D	051D	051E	051E	051E
1-M	5/1/17										
1-T	5/2/17										
1-W	5/3/17										
1-Th	5/4/17										
1-F	5/5/17										
1-Sa	5/6/17										
2-Su	5/7/17										
2-M	5/8/17										
2-T	5/9/17										
2-W	5/10/17										
2-Th	5/11/17										
2-F	5/12/17										
2-Sa	5/13/17										
3-Su	5/14/17										
3-M	5/15/17										
3-T	5/16/17										
3-W	5/17/17										
3-Th	5/18/17										
3-F	5/19/17										
3-Sa	5/20/17										
4-Su	5/21/17										
4-M	5/22/17										
4-T	5/23/17										
4-W	5/24/17										
4-Th	5/25/17										
4-F	5/26/17										
4-Sa	5/27/17										
5-Su	5/28/17										
5-M	5/29/17										
5-T	5/30/17										
5-W	5/31/17										
Daily Minimum											
Average											
Maximum											
Daily Maximum											

Monthly geometric mean											
Total			0.8								
			Report Only				Report Only				

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge

Outfall: 051 -

Monitoring Point	Parameter	Sample Date/ Statistical Base	Value	Notes/Comment
051	All Parameters		C	TSS % removal calculated to be 84.3%
051A	All Parameters		C	
051B	All Parameters		C	
051C	All Parameters		C	
051D	All Parameters		C	
051E	All Parameters		C	

Monthly geometric mean											
							<= 400				
Total											
				Report Only	Report Only	Report Only					

Monthly geometric mean										
Total										

Washington State Department of Ecology **Discharge Monitoring Report (DMR)**

Permit Number: WA0029181 **Permittee:** King County West Point WWTP

Facility County: King **Receiving Waterbody:** Puget Sound

Monitoring Period: 05/01/2017 - 05/31/2017 **Outfall:** 046 **Version:** 1

Week	Monitoring Point	Number of Events Number Summary Only Metered/Recorded	Flow Million Gallons/Day Summary Only Metered/Recorded	Volume Monthly Million Gallons Summary Only Calculated	Total BOD5 Total Milligrams/L (mg/L) Summary Only Composite Sample (24 HR Flow-proportional comp)	Solids (Residue) Total suspended (TSS) Milligrams/L (mg/L) Summary Only Composite Sample (24 HR Flow-proportional comp)	Number of Events Number Summary Only Metered/Recorded	Volume Monthly Million Gallons Summary Only Calculated	Total BOD5 Total Milligrams/L (mg/L) Summary Only Composite Sample (24 HR Flow-proportional comp)	Solids (Residue) Total suspended (TSS) Milligrams/L (mg/L) Summary Only Composite Sample (24 HR Flow-proportional comp)	Solids (Residue) Total suspended (TSS) Percent Summary Only Calculated	Solids (Residue) Settleable Solids Milliliter per liter Summary Only Composite Sample (24 HR Flow-proportional comp)
		IN46	IN46	IN46	IN46	IN46	046	046	046	046	046	046
1-M	5/1/17											
1-T	5/2/17											
1-W	5/3/17											
1-Th	5/4/17	1	0.113	0.113	184	306						
1-F	5/5/17											
1-Sa	5/6/17											
2-Su	5/7/17											
2-M	5/8/17											
2-T	5/9/17											
2-W	5/10/17											
2-Th	5/11/17											
2-F	5/12/17											
2-Sa	5/13/17											
3-Su	5/14/17											
3-M	5/15/17	2	0.166	0.166	122	165						
3-T	5/16/17	2	0.041	0.041	109	153						
3-W	5/17/17											
3-Th	5/18/17											
3-F	5/19/17											
3-Sa	5/20/17											
4-Su	5/21/17											
4-M	5/22/17											
4-T	5/23/17											
4-W	5/24/17											
4-Th	5/25/17											
4-F	5/26/17											
4-Sa	5/27/17											
5-Su	5/28/17											
5-M	5/29/17											
5-T	5/30/17											
5-W	5/31/17											
Daily Minimum												
Average			0.106667		138.333	87.9						
			Report Only		Report Only	Report Only			Report Only	Report Only	Report Only	Report Only
Maximum			0.166		184	306						
			Report Only		Report Only	Report Only			Report Only	Report Only		Report Only
Daily Maximum												

Week	Monitoring Point	Total Residual Chlorine Total residual Micrograms/L (ug/L) Summary Only Metered/Recorded	pH Daily Min Standard Units Summary Only Metered/Recorded	pH Daily Max Standard Units Summary Only Metered/Recorded	Duration CSO Discharge Hours Summary Only Metered/Recorded	Duration Storm event Hours Summary Only Metered/Recorded	Rainfall Inches Summary Only Metered/Recorded	Fecal Coliform #/100ml Summary Only Grab	Total Residual Chlorine Total residual Micrograms/L (ug/L) Summary Only Metered/Recorded	pH Standard Units Summary Only Metered/Recorded	Fecal Coliform #/100ml Summary Only Grab	Total Residual Chlorine Total residual Micrograms/L (ug/L) Summary Only Metered/Recorded
		046	046	046	046	046	046	046A	046A	046A	046B	046B
1-M	5/1/17											
1-T	5/2/17											
1-W	5/3/17											
1-Th	5/4/17											
1-F	5/5/17											
1-Sa	5/6/17											
2-Su	5/7/17											
2-M	5/8/17											
2-T	5/9/17											
2-W	5/10/17											
2-Th	5/11/17											
2-F	5/12/17											
2-Sa	5/13/17											
3-Su	5/14/17											
3-M	5/15/17											
3-T	5/16/17											
3-W	5/17/17											
3-Th	5/18/17											
3-F	5/19/17											
3-Sa	5/20/17											
4-Su	5/21/17											
4-M	5/22/17											
4-T	5/23/17											
4-W	5/24/17											
4-Th	5/25/17											
4-F	5/26/17											
4-Sa	5/27/17											
5-Su	5/28/17											
5-M	5/29/17											
5-T	5/30/17											
5-W	5/31/17											
Daily Minimum												
			>= 6.0 (RO)									
Average												
		Report Only										
Maximum												
Daily Maximum												
		<= 490 (RO)		<= 9.0 (RO)								

Week	Monitoring Point	pH Standard Units Summary Only Metered/Recorded	Fecal Coliform #/100ml Summary Only Grab	Total Residual Chlorine Total residual Micrograms/L (ug/L) Summary Only Metered/Recorded	pH Standard Units Summary Only Metered/Recorded	Fecal Coliform #/100ml Summary Only Grab	Total Residual Chlorine Total residual Micrograms/L (ug/L) Summary Only Metered/Recorded	pH Standard Units Summary Only Metered/Recorded	Fecal Coliform #/100ml Summary Only Grab	Total Residual Chlorine Total residual Micrograms/L (ug/L) Summary Only Metered/Recorded	pH Standard Units Summary Only Metered/Recorded
		046B	046C	046C	046C	046D	046D	046D	046E	046E	046E
1-M	5/1/17										
1-T	5/2/17										
1-W	5/3/17										
1-Th	5/4/17										
1-F	5/5/17										
1-Sa	5/6/17										
2-Su	5/7/17										
2-M	5/8/17										
2-T	5/9/17										
2-W	5/10/17										
2-Th	5/11/17										
2-F	5/12/17										
2-Sa	5/13/17										
3-Su	5/14/17										
3-M	5/15/17										
3-T	5/16/17										
3-W	5/17/17										
3-Th	5/18/17										
3-F	5/19/17										
3-Sa	5/20/17										
4-Su	5/21/17										
4-M	5/22/17										
4-T	5/23/17										
4-W	5/24/17										
4-Th	5/25/17										
4-F	5/26/17										
4-Sa	5/27/17										
5-Su	5/28/17										
5-M	5/29/17										
5-T	5/30/17										
5-W	5/31/17										
Daily Minimum											
Average											
Maximum											
Daily Maximum											

Monthly geometric mean											
Total			0.32								
			Report Only				Report Only				

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge

Outfall: 046 -

Monitoring Point	Parameter	Sample Date/ Statistical Base	Value	Notes/Comment
046	All Parameters		C	TSS % removal calculated to be 87.9%
046A	All Parameters		C	
046B	All Parameters		C	
046C	All Parameters		C	
046D	All Parameters		C	
046E	All Parameters		C	

Monthly geometric mean											
							<= 400				
Total											
				Report Only	Report Only	Report Only					

Monthly geometric mean										
Total										

Washington State Department of Ecology **Discharge Monitoring Report (DMR)**

Permit Number: WA0029181 **Permittee:** King County West Point WWTP

Facility County: King **Receiving Waterbody:** Puget Sound

Monitoring Period: 05/01/2017 - 05/31/2017 **Outfall:** 027 **Version:** 1

Week	Monitoring Point	Number of Events Number Summary Only Metered/Recorded	Flow Million Gallons/Day Summary Only Metered/Recorded	Volume Monthly Million Gallons Summary Only Calculated	Total BOD5 Total Milligrams/L (mg/L) Summary Only Composite Sample (24 HR Flow-proportional comp)	Solids (Residue) Total suspended (TSS) Milligrams/L (mg/L) Summary Only Composite Sample (24 HR Flow-proportional comp)	Number of Events Number Summary Only Metered/Recorded	Volume Monthly Million Gallons Summary Only Calculated	Total BOD5 Total Milligrams/L (mg/L) Summary Only Composite Sample (24 HR Flow-proportional comp)	Solids (Residue) Total suspended (TSS) Milligrams/L (mg/L) Summary Only Composite Sample (24 HR Flow-proportional comp)	Solids (Residue) Total suspended (TSS) Percent Summary Only Calculated	Solids (Residue) Settleable Solids Milliliter per liter Summary Only Composite Sample (24 HR Flow-proportional comp)
		IN27	IN27	IN27	IN27	IN27	027	027	027	027	027	027
1-M	5/1/17											
1-T	5/2/17	1	0.34	0.34	524	815						
1-W	5/3/17	1	0.88	0.88	369	312						
1-Th	5/4/17	1	4.76	4.76	144	192						
1-F	5/5/17	1	3.01	3.01	46	60						
1-Sa	5/6/17	1	0.79	0.79	59	86						
2-Su	5/7/17											
2-M	5/8/17											
2-T	5/9/17											
2-W	5/10/17											
2-Th	5/11/17	2	0.39	0.39	146	97						
2-F	5/12/17											
2-Sa	5/13/17											
3-Su	5/14/17											
3-M	5/15/17											
3-T	5/16/17	3	1.15	1.15	51	34						
3-W	5/17/17											
3-Th	5/18/17											
3-F	5/19/17											
3-Sa	5/20/17											
4-Su	5/21/17											
4-M	5/22/17											
4-T	5/23/17											
4-W	5/24/17											
4-Th	5/25/17											
4-F	5/26/17											
4-Sa	5/27/17											
5-Su	5/28/17											
5-M	5/29/17											
5-T	5/30/17											
5-W	5/31/17											
Daily Minimum												
Average			1.61714		191.286	228						
			Report Only		Report Only	Report Only			Report Only	Report Only	Report Only	Report Only
Maximum			4.76		524	815						
			Report Only		Report Only	Report Only			Report Only	Report Only		Report Only
Daily Maximum												

Week	Monitoring Point	Total Residual Chlorine Total residual Micrograms/L (ug/L) Summary Only Metered/Recorded	pH Daily Min Standard Units Summary Only Metered/Recorded	pH Daily Max Standard Units Summary Only Metered/Recorded	Duration CSO Discharge Hours Summary Only Metered/Recorded	Duration Storm event Hours Summary Only Metered/Recorded	Rainfall Inches Summary Only Metered/Recorded	Fecal Coliform #/100ml Summary Only Grab	Total Residual Chlorine Total residual Micrograms/L (ug/L) Summary Only Metered/Recorded	pH Standard Units Summary Only Metered/Recorded	Fecal Coliform #/100ml Summary Only Grab	Total Residual Chlorine Total residual Micrograms/L (ug/L) Summary Only Metered/Recorded
		027	027	027	027	027	027	027A	027A	027A	027B	027B
1-M	5/1/17											
1-T	5/2/17											
1-W	5/3/17											
1-Th	5/4/17											
1-F	5/5/17											
1-Sa	5/6/17											
2-Su	5/7/17											
2-M	5/8/17											
2-T	5/9/17											
2-W	5/10/17											
2-Th	5/11/17											
2-F	5/12/17											
2-Sa	5/13/17											
3-Su	5/14/17											
3-M	5/15/17											
3-T	5/16/17											
3-W	5/17/17											
3-Th	5/18/17											
3-F	5/19/17											
3-Sa	5/20/17											
4-Su	5/21/17											
4-M	5/22/17											
4-T	5/23/17											
4-W	5/24/17											
4-Th	5/25/17											
4-F	5/26/17											
4-Sa	5/27/17											
5-Su	5/28/17											
5-M	5/29/17											
5-T	5/30/17											
5-W	5/31/17											
Daily Minimum												
			>= 6.0 (RO)									
Average												
		Report Only										
Maximum												
Daily Maximum												
		<= 109 (RO)		<= 9.0 (RO)								

Week	Monitoring Point	pH Standard Units Summary Only Metered/Recorded	Fecal Coliform #/100ml Summary Only Grab	Total Residual Chlorine Total residual Micrograms/L (ug/L) Summary Only Metered/Recorded	pH Standard Units Summary Only Metered/Recorded	Fecal Coliform #/100ml Summary Only Grab	Total Residual Chlorine Total residual Micrograms/L (ug/L) Summary Only Metered/Recorded	pH Standard Units Summary Only Metered/Recorded	Fecal Coliform #/100ml Summary Only Grab	Total Residual Chlorine Total residual Micrograms/L (ug/L) Summary Only Metered/Recorded	pH Standard Units Summary Only Metered/Recorded
		027B	027C	027C	027C	027D	027D	027D	027E	027E	027E
1-M	5/1/17										
1-T	5/2/17										
1-W	5/3/17										
1-Th	5/4/17										
1-F	5/5/17										
1-Sa	5/6/17										
2-Su	5/7/17										
2-M	5/8/17										
2-T	5/9/17										
2-W	5/10/17										
2-Th	5/11/17										
2-F	5/12/17										
2-Sa	5/13/17										
3-Su	5/14/17										
3-M	5/15/17										
3-T	5/16/17										
3-W	5/17/17										
3-Th	5/18/17										
3-F	5/19/17										
3-Sa	5/20/17										
4-Su	5/21/17										
4-M	5/22/17										
4-T	5/23/17										
4-W	5/24/17										
4-Th	5/25/17										
4-F	5/26/17										
4-Sa	5/27/17										
5-Su	5/28/17										
5-M	5/29/17										
5-T	5/30/17										
5-W	5/31/17										
Daily Minimum											
Average											
Maximum											
Daily Maximum											

Monthly geometric mean											
Total			11.32								
			Report Only				Report Only				

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge

Outfall: 027 -

Monitoring Point	Parameter	Sample Date/ Statistical Base	Value	Notes/Comment
027	All Parameters		C	TSS 5 removal calculated to be 82.3%
027A	All Parameters		C	
027B	All Parameters		C	
027C	All Parameters		C	
027D	All Parameters		C	
027E	All Parameters		C	

Monthly geometric mean											
							<= 400				
Total											
				Report Only	Report Only	Report Only					

Monthly geometric mean										
Total										

Washington State Department of Ecology **Discharge Monitoring Report (DMR)**

Permit Number: WA0029181 **Permittee:** King County West Point WWTP

Facility County: King **Receiving Waterbody:** Puget Sound

Monitoring Period: 05/01/2017 - 05/31/2017 **Outfall:** 044 **Version:** 1

Week	Monitoring Point	Number of Events Number Summary Only Metered/Recorded	Flow Million Gallons/Day Summary Only Metered/Recorded	Volume Monthly Million Gallons Summary Only Calculated	Total BOD5 Total Milligrams/L (mg/L) Summary Only Composite Sample (24 HR Flow-proportional comp)	Solids (Residue) Total suspended (TSS) Milligrams/L (mg/L) Summary Only Composite Sample (24 HR Flow-proportional comp)	Number of Events Number Summary Only Metered/Recorded	Volume Monthly Million Gallons Summary Only Calculated	Total BOD5 Total Milligrams/L (mg/L) Summary Only Composite Sample (24 HR Flow-proportional comp)	Solids (Residue) Total suspended (TSS) Milligrams/L (mg/L) Summary Only Composite Sample (24 HR Flow-proportional comp)	Solids (Residue) Total suspended (TSS) Percent Summary Only Calculated	Solids (Residue) Settleable Solids Milliliter per liter Summary Only Composite Sample (24 HR Flow-proportional comp)
		IN44	IN44	IN44	IN44	IN44	044	044	044	044	044	044
1-M	5/1/17											
1-T	5/2/17											
1-W	5/3/17											
1-Th	5/4/17											
1-F	5/5/17											
1-Sa	5/6/17											
2-Su	5/7/17											
2-M	5/8/17											
2-T	5/9/17											
2-W	5/10/17											
2-Th	5/11/17											
2-F	5/12/17											
2-Sa	5/13/17											
3-Su	5/14/17											
3-M	5/15/17											
3-T	5/16/17											
3-W	5/17/17											
3-Th	5/18/17											
3-F	5/19/17											
3-Sa	5/20/17											
4-Su	5/21/17											
4-M	5/22/17											
4-T	5/23/17											
4-W	5/24/17											
4-Th	5/25/17											
4-F	5/26/17											
4-Sa	5/27/17											
5-Su	5/28/17											
5-M	5/29/17											
5-T	5/30/17											
5-W	5/31/17											
Daily Minimum												
Average			Report Only		Report Only	Report Only			Report Only	Report Only	Report Only	Report Only
Maximum			Report Only		Report Only	Report Only			Report Only	Report Only		Report Only
Daily Maximum												

Week	Monitoring Point	Total Residual Chlorine Total residual Micrograms/L (ug/L) Summary Only Metered/Recorded	pH Daily Min Standard Units Summary Only Metered/Recorded	pH Daily Max Standard Units Summary Only Metered/Recorded	Duration CSO Discharge Hours Summary Only Metered/Recorded	Duration Storm event Hours Summary Only Metered/Recorded	Rainfall Inches Summary Only Metered/Recorded	Fecal Coliform #/100ml Summary Only Grab	Total Residual Chlorine Total residual Micrograms/L (ug/L) Summary Only Metered/Recorded	pH Standard Units Summary Only Metered/Recorded	Fecal Coliform #/100ml Summary Only Grab	Total Residual Chlorine Total residual Micrograms/L (ug/L) Summary Only Metered/Recorded
		044	044	044	044	044	044	044A	044A	044A	044B	044B
1-M	5/1/17											
1-T	5/2/17											
1-W	5/3/17											
1-Th	5/4/17											
1-F	5/5/17											
1-Sa	5/6/17											
2-Su	5/7/17											
2-M	5/8/17											
2-T	5/9/17											
2-W	5/10/17											
2-Th	5/11/17											
2-F	5/12/17											
2-Sa	5/13/17											
3-Su	5/14/17											
3-M	5/15/17											
3-T	5/16/17											
3-W	5/17/17											
3-Th	5/18/17											
3-F	5/19/17											
3-Sa	5/20/17											
4-Su	5/21/17											
4-M	5/22/17											
4-T	5/23/17											
4-W	5/24/17											
4-Th	5/25/17											
4-F	5/26/17											
4-Sa	5/27/17											
5-Su	5/28/17											
5-M	5/29/17											
5-T	5/30/17											
5-W	5/31/17											
Daily Minimum												
			>= 6.0 (RO)									
Average												
		Report Only										
Maximum												
Daily Maximum												
		<= 39 (RO)		<= 9.0 (RO)								

Week	Monitoring Point	pH Standard Units Summary Only Metered/Recorded	Fecal Coliform #/100ml Summary Only Grab	Total Residual Chlorine Total residual Micrograms/L (ug/L) Summary Only Metered/Recorded	pH Standard Units Summary Only Metered/Recorded	Fecal Coliform #/100ml Summary Only Grab	Total Residual Chlorine Total residual Micrograms/L (ug/L) Summary Only Metered/Recorded	pH Standard Units Summary Only Metered/Recorded	Fecal Coliform #/100ml Summary Only Grab	Total Residual Chlorine Total residual Micrograms/L (ug/L) Summary Only Metered/Recorded	pH Standard Units Summary Only Metered/Recorded
		044B	044C	044C	044C	044D	044D	044D	044E	044E	044E
1-M	5/1/17										
1-T	5/2/17										
1-W	5/3/17										
1-Th	5/4/17										
1-F	5/5/17										
1-Sa	5/6/17										
2-Su	5/7/17										
2-M	5/8/17										
2-T	5/9/17										
2-W	5/10/17										
2-Th	5/11/17										
2-F	5/12/17										
2-Sa	5/13/17										
3-Su	5/14/17										
3-M	5/15/17										
3-T	5/16/17										
3-W	5/17/17										
3-Th	5/18/17										
3-F	5/19/17										
3-Sa	5/20/17										
4-Su	5/21/17										
4-M	5/22/17										
4-T	5/23/17										
4-W	5/24/17										
4-Th	5/25/17										
4-F	5/26/17										
4-Sa	5/27/17										
5-Su	5/28/17										
5-M	5/29/17										
5-T	5/30/17										
5-W	5/31/17										
Daily Minimum											
Average											
Maximum											
Daily Maximum											

Monthly geometric mean											
Total											
			Report Only				Report Only				

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge

Outfall: 044 -

Monitoring Point	Parameter	Sample Date/ Statistical Base	Value	Notes/Comment
IN44	All Parameters		C	
044	All Parameters		C	
044A	All Parameters		C	
044B	All Parameters		C	
044C	All Parameters		C	
044D	All Parameters		C	
044E	All Parameters		C	

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 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.

Eugene Sugita
Signature

6/15/2017 2:53:39 PM
Date

Monthly geometric mean											
							<= 400				
Total											
				Report Only	Report Only	Report Only					

Monthly geometric mean										
Total										

King County Environmental Lab Analytical MICRO Report

Project:	421298A							Project:	421298A					
Locator:	I4001							Locator:	I5001					
Sample:	L67720-4							Sample:	L67720-5					
Matrix:	SD SLUDGE							Matrix:	SD SLUDGE					
ColDate:	5/16/17 8:10							ColDate:	5/16/17 0:00					
TotalSolid:	30.2							TotalSolid:	23.6					
DRY Weight Basis								**DRY Weight Basis**						
Parameters	**Qual**	**Wet Wght**	**Wet MDL**	**Wet Unit**	**Dry Wght**	**Dry MDL**	**Dry Unit**	**Qual**	**Wet Wght**	**Wet MDL**	**Wet Unit**	**Dry Wght**	**Dry MDL**	**Dry Unit**
MC EPA-821-R-06-14 1682 MODIFIED														
Salmonella	>1.6E+04			MPN/100g			MPN/4g		130		MPN/100g	22		MPN/4g
MC SM 9221E 20TH														
Fecal Coliform		920000000		MPN/100g	30000000		MPN/1g		11000000		MPN/100g	470000		MPN/1g
* Not converted to dry weight basis														

King County Environmental Lab Analytical MICRO Report

Project: 421298A
Locator: I6101
Sample: L67720-6
Matrix: SD SLUDGE
ColDate: 5/15/17 18:00
TotalSolid: 19.4
DRY Weight Basis

Parameters	Qual	Wet Wght	Wet MDL	Wet Unit	Dry Wght	Dry MDL	Dry Unit
MC EPA-821-R-06-14 1682 MODIFIED							
Salmonella		330		MPN/100g	68		MPN/4g
MC SM 9221E 20TH							
Fecal Coliform		3300000		MPN/100g	170000		MPN/1g
* Not converted to dry weight basis							

King County Environmental Lab Analytical MATRIX Report

Owner: SEEDPAK
Matrix Class: SOLID/TISSUE
User select: DRY Weight Basis

LOCATOR	PROJECT	SAMPLE	COLLECTED	Silver, Total, ICP-MS mg/Kg	Arsenic, Total, ICP-MS mg/Kg	Barium, Total, ICP-MS mg/Kg	Beryllium, Total, ICP-MS mg/Kg	Cadmium, Total, ICP-MS mg/Kg	Chromium, Total, ICP-MS mg/Kg	Copper, Total, ICP-MS mg/Kg	Mercury, Total, CVAA mg/Kg	Potassium, Total, ICP-MS mg/Kg	Magnesium, Total, ICP-MS mg/Kg	Manganese, Total, ICP-MS mg/Kg	Molybdenum, Total, ICP-MS mg/Kg	Nickel, Total, ICP-MS mg/Kg	Lead, Total, ICP-MS mg/Kg	Selenium, Total, ICP-MS mg/Kg	Zinc, Total, ICP-MS mg/Kg
I4001	421298A	L67720-1	5/15/2017 7:30	3.4	6.04	200	0.174	1.64	32.1	356	0.634	1090	4850	663	7.89	23.5	76.6	6.24	805
I5001	421298A	L67720-2	5/15/2017 6:00	2.22	5.66	188	<0.126	1.56	23.2	318	0.724	1960	5710	420	8.98	16.6	29.4	5.61	755
I6101	421298A	L67720-3	5/15/2017 8:35	1.81	2.29	152	<0.123	0.688	25.1	252	0.849	1610	3940	442	5.38	15.8	8.69	5.48	563
I4001	421298A	L67720-4	5/16/2017 8:10																
I5001	421298A	L67720-5	5/16/2017 0:00																
I6101	421298A	L67720-6	5/15/2017 18:00																
* Not converted to dry weight basis																			
If a parameter/analyte appears twice in the column header, it implies that they were analyzed by two different method codes																			

King County Environmental Lab Analytical MATRIX Report

Owner: SEEDPAK
Matrix Class: SOLID/TISSUE
User select: DRY Weight Basis

LOCATOR	PROJECT	SAMPLE	COLLECTED	*Total Solids	Boron, Total, ICP-MS	Calcium, Total, ICP-MS	Iron, Total, ICP-MS	Phosphorus, Total, ICP-MS	Sulfur, Total, ICP-MS	Total Volatile Solids	Total Phosphorus	*pH	Ammonia Nitrogen	Organic Nitrogen	Total Kjeldahl Nitrogen	*Total Solids	Salmonella	Fecal Coliform
				%	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	%	mg/Kg	pH	mg/Kg	mg/Kg	mg/Kg	%	MPN/100g	MPN/100g
I4001	421298A	L67720-1	5/15/2017 7:30	30.3	12.3	18400	17400	13700	8250	63.7	14600	8.85	6240	48800	55100			
I5001	421298A	L67720-2	5/15/2017 6:00	19.6	13.6	21200	18500	21600	9230	70.4	21500	8.62	13300	48400	61700			
I6101	421298A	L67720-3	5/15/2017 8:35	19.9	42.4	22100	7740	18000	9200	82.9	17000	8.87	9700	63800	73400			
I4001	421298A	L67720-4	5/16/2017 8:10													30.2		3050000000
I5001	421298A	L67720-5	5/16/2017 0:00													23.6	551	46600000
I6101	421298A	L67720-6	5/15/2017 18:00													19.4	1700	17000000
* Not converted to dry weight basis																		
If a parameter/analyte appears twice in the column header,																		

King County Environmental Lab Analytical Report

	Project: 421298A Locator: I4001 Descrip: WEST POINT STP/DEW Sample: L67720-1 Matrix: SD SLUDGE ColDate: 5/15/17 7:30 TimeSpan: 24 TotalSolid: 30.3 **DRY Weight Basis**					Project: 421298A Locator: I5001 Descrip: RENTON STP/DEWATER Sample: L67720-2 Matrix: SD SLUDGE ColDate: 5/15/17 6:00 TimeSpan: 18 TotalSolid: 19.6 **DRY Weight Basis**					Project: 421298A Locator: I6101 Descrip: BRIGHTWATER TREATM Sample: L67720-3 Matrix: SD SLUDGE ColDate: 5/15/17 8:35 TimeSpan: 9.42 TotalSolid: 19.9 **DRY Weight Basis**				
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**
CV SM2540-E 18ED.															
Total Volatile Solids						70.4		0.026	0.051	%	82.9		0.025	0.0503	%
CV SM2540-E 20ED.															
Total Volatile Solids	63.7		0.017	0.033	%										
CV SM2540-G															
Total Solids*															
CV SM2540-G 18ED															
Total Solids*						19.6		0.005	0.01	%	19.9		0.005	0.01	%
CV SM2540-G 20ED															
Total Solids*	30.3		0.005	0.01	%										
CV SM4500 P . B. & C. 18ED.															
Total Phosphorus						21500		1020	1020	mg/Kg	17000		1010	1010	mg/Kg
CV SM4500-H+B 18ED															
pH*						8.62	H			pH	8.87	H			pH
CV SM4500-H+B 20ED															
pH*	8.85	H			pH										
CV SM4500-NH3-E 18ED.															
Ammonia Nitrogen						13300		25.5	25.5	mg/Kg	9700		25.1	25.1	mg/Kg
CV SM4500-NH3-E 20ED															
Ammonia Nitrogen	6240		16.5	16.5	mg/Kg										
CV SM4500-NORG-B 18ED.															
Organic Nitrogen						48400		663	663	mg/Kg	63800		653	653	mg/Kg
Total Kjeldahl Nitrogen						61700		663	663	mg/Kg	73400		653	653	mg/Kg
CV SM4500-NORG-B 20ED.															
Organic Nitrogen	48800		429	429	mg/Kg										
Total Kjeldahl Nitrogen	55100		429	429	mg/Kg										
CV SM4500-P B5 & E															
Total Phosphorus	14600		660	660	mg/Kg										
MC EPA-821-R-06-14 1682 MODIFIED															
Salmonella															
MC SM 9221E 20TH															
Fecal Coliform															
MT SW846 3050B(MODSB)*SW846 6020B															
Arsenic, Total, ICP-MS	6.04		0.0842	0.0842	mg/Kg	5.66		0.126	0.126	mg/Kg	2.29		0.123	0.123	mg/Kg
Barium, Total, ICP-MS	200		0.419	0.419	mg/Kg	188		0.633	0.633	mg/Kg	152		0.613	0.613	mg/Kg
Beryllium, Total, ICP-MS	0.174		0.0842	0.0842	mg/Kg		<QL	0.126	0.126	mg/Kg		<QL	0.123	0.123	mg/Kg
Boron, Total, ICP-MS	12.3		1.68	1.68	mg/Kg	13.6		2.53	2.53	mg/Kg	42.4		2.45	2.45	mg/Kg
Cadmium, Total, ICP-MS	1.64		0.0419	0.0419	mg/Kg	1.56		0.0628	0.0628	mg/Kg	0.688		0.0613	0.0613	mg/Kg
Calcium, Total, ICP-MS	18400		41.9	41.9	mg/Kg	21200		63.3	63.3	mg/Kg	22100		61.3	61.3	mg/Kg
Chromium, Total, ICP-MS	32.1		0.168	0.168	mg/Kg	23.2		0.253	0.253	mg/Kg	25.1		0.245	0.245	mg/Kg
Copper, Total, ICP-MS	356		0.168	0.168	mg/Kg	318		0.253	0.253	mg/Kg	252		0.245	0.245	mg/Kg
Iron, Total, ICP-MS	17400		8.42	8.42	mg/Kg	18500		12.6	12.6	mg/Kg	7740		12.3	12.3	mg/Kg
Lead, Total, ICP-MS	76.6		0.0842	0.0842	mg/Kg	29.4		0.126	0.126	mg/Kg	8.69		0.123	0.123	mg/Kg
Magnesium, Total, ICP-MS	4850		41.9	41.9	mg/Kg	5710		63.3	63.3	mg/Kg	3940		61.3	61.3	mg/Kg
Manganese, Total, ICP-MS	663		0.0842	0.0842	mg/Kg	420		0.126	0.126	mg/Kg	442		0.123	0.123	mg/Kg
Molybdenum, Total, ICP-MS	7.89		0.0842	0.0842	mg/Kg	8.98		0.126	0.126	mg/Kg	5.38		0.123	0.123	mg/Kg
Nickel, Total, ICP-MS	23.5		0.0838	0.0838	mg/Kg	16.6		0.126	0.126	mg/Kg	15.8		0.123	0.123	mg/Kg
Phosphorus, Total, ICP-MS	13700		84.2	84.2	mg/Kg	21600		126	126	mg/Kg	18000		123	123	mg/Kg
Potassium, Total, ICP-MS	1090		84.2	84.2	mg/Kg	1960		126	126	mg/Kg	1610		123	123	mg/Kg
Selenium, Total, ICP-MS	6.24		0.419	0.419	mg/Kg	5.61		0.633	0.633	mg/Kg	5.48		0.613	0.613	mg/Kg

King County Environmental Lab Analytical Report

	West Point	Renton	Brightwater
Project:	421298A	421298A	421298A
Locator:	I4001	I5001	I6101
Descrip:	WEST POINT STP/DEW	RENTON STP/DEWATER	BRIGHTWATER TREATM
Sample:	L67720-1	L67720-2	L67720-3
Matrix:	SD SLUDGE	SD SLUDGE	SD SLUDGE
ColDate:	5/15/17 7:30	5/15/17 6:00	5/15/17 8:35
TimeSpan:	24	18	9.42
TotalSolid:	30.3	19.6	19.9
	DRY Weight Basis	**DRY Weight Basis**	**DRY Weight Basis**

Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
Silver, Total, ICP-MS	3.4		0.0337	0.0337	mg/Kg	2.22		0.0504	0.0504	mg/Kg	1.81		0.0491	0.0491	mg/Kg
Sulfur, Total, ICP-MS	8250		842	842	mg/Kg	9230		1260	1260	mg/Kg	9200		1230	1230	mg/Kg
Zinc, Total, ICP-MS	805		0.419	0.419	mg/Kg	755		0.633	0.633	mg/Kg	563		0.613	0.613	mg/Kg
MT SW846 7471B															
Mercury, Total, CVAA	0.634		0.064	0.064	mg/Kg	0.724		0.099	0.099	mg/Kg	0.849		0.102	0.102	mg/Kg

* Not converted to dry weight basis

King County Environmental Lab Analytical Report

	Project: 421298A Locator: I4001 Descrip: WEST POINT STP/DEW Sample: L67720-4 Matrix: SD SLUDGE ColDate: 5/16/17 8:10 TimeSpan: TotalSolid: 30.2 **DRY Weight Basis**					Project: 421298A Locator: I5001 Descrip: RENTON STP/DEWATER Sample: L67720-5 Matrix: SD SLUDGE ColDate: 5/16/17 0:00 TimeSpan: TotalSolid: 23.6 **DRY Weight Basis**					Project: 421298A Locator: I6101 Descrip: BRIGHTWATER TREATM Sample: L67720-6 Matrix: SD SLUDGE ColDate: 5/15/17 18:00 TimeSpan: TotalSolid: 19.4 **DRY Weight Basis**				
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**
CV SM2540-E 18ED.															
Total Volatile Solids															
CV SM2540-E 20ED.															
Total Volatile Solids															
CV SM2540-G															
Total Solids*	30.2		0.005	0.01	%	23.6		0.005	0.01	%	19.4		0.005	0.01	%
CV SM2540-G 18ED															
Total Solids*															
CV SM2540-G 20ED															
Total Solids*															
CV SM4500 P . B. & C. 18ED.															
Total Phosphorus															
CV SM4500-H+B 18ED															
pH*															
CV SM4500-H+B 20ED															
pH*															
CV SM4500-NH3-E 18ED.															
Ammonia Nitrogen															
CV SM4500-NH3-E 20ED															
Ammonia Nitrogen															
CV SM4500-NORG-B 18ED.															
Organic Nitrogen															
Total Kjeldahl Nitrogen															
CV SM4500-NORG-B 20ED.															
Organic Nitrogen															
Total Kjeldahl Nitrogen															
CV SM4500-P B5 & E															
Total Phosphorus															
MC EPA-821-R-06-14 1682 MODIFIED															
Salmonella		>1.6E+04			MPN/100g	551				MPN/100g	1700				MPN/100g
MC SM 9221E 20TH															
Fecal Coliform	3050000000				MPN/100g	46600000				MPN/100g	17000000				MPN/100g
MT SW846 3050B(MODSB)*SW846 6020B															
Arsenic, Total, ICP-MS															
Barium, Total, ICP-MS															
Beryllium, Total, ICP-MS															
Boron, Total, ICP-MS															
Cadmium, Total, ICP-MS															
Calcium, Total, ICP-MS															
Chromium, Total, ICP-MS															
Copper, Total, ICP-MS															
Iron, Total, ICP-MS															
Lead, Total, ICP-MS															
Magnesium, Total, ICP-MS															
Manganese, Total, ICP-MS															
Molybdenum, Total, ICP-MS															
Nickel, Total, ICP-MS															
Phosphorus, Total, ICP-MS															
Potassium, Total, ICP-MS															
Selenium, Total, ICP-MS															

King County Environmental Lab Analytical Report

	Project: 421298A Locator: I4001 Descrip: WEST POINT STP/DEW Sample: L67720-4 Matrix: SD SLUDGE ColDate: 5/16/17 8:10 TimeSpan: TotalSolid: 30.2 **DRY Weight Basis**					Project: 421298A Locator: I5001 Descrip: RENTON STP/DEWATER Sample: L67720-5 Matrix: SD SLUDGE ColDate: 5/16/17 0:00 TimeSpan: TotalSolid: 23.6 **DRY Weight Basis**					Project: 421298A Locator: I6101 Descrip: BRIGHTWATER TREATM Sample: L67720-6 Matrix: SD SLUDGE ColDate: 5/15/17 18:00 TimeSpan: TotalSolid: 19.4 **DRY Weight Basis**				
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**
Silver, Total, ICP-MS															
Sulfur, Total, ICP-MS															
Zinc, Total, ICP-MS															
MT SW846 7471B															
Mercury, Total, CVAA															
* Not converted to dry weight basis															

King County Environmental Lab Analytical MICRO Report

Project:	421298A							Project:	421298A						
Locator:	I4001							Locator:	I5001						
Sample:	L67461-4							Sample:	L67461-5						
Matrix:	SD SLUDGE							Matrix:	SD SLUDGE						
ColDate:	4/25/17 6:45							ColDate:	4/10/17 21:00						
TotalSolid:	31							TotalSolid:	22.6						
DRY Weight Basis								DRY Weight Basis							
Parameters	**Qual**	**Wet Wght**	**Wet MDL**	**Wet Unit**	**Dry Wght**	**Dry MDL**	**Dry Unit**	**Qual**	**Wet Wght**	**Wet MDL**	**Wet Unit**	**Dry Wght**	**Dry MDL**	**Dry Unit**
MC EPA-821-R-06-14 1682 MODIFIED														
Salmonella		12		MPN/100g	1.5		MPN/4g		33		MPN/100g	5.8		MPN/4g
MC SM 9221E 20TH														
Fecal Coliform		2300000		MPN/100g	74000		MPN/1g		790000		MPN/100g	35000		MPN/1g
* Not converted to dry weight basis														

King County Environmental Lab Analytical MICRO Report

Project: 421298A
Locator: I6101
Sample: L67461-6
Matrix: SD SLUDGE
ColDate: 4/10/17 17:00
TotalSolid: 19.6
DRY Weight Basis

Parameters	Qual	Wet Wght	Wet MDL	Wet Unit	Dry Wght	Dry MDL	Dry Unit
MC EPA-821-R-06-14 1682 MODIFIED							
Salmonella		330		MPN/100g	67		MPN/4g
MC SM 9221E 20TH							
Fecal Coliform		7900000		MPN/100g	400000		MPN/1g

* Not converted to dry weight basis

King County Environmental Lab Analytical MATRIX Report

Owner: SEEDPAK
Matrix Class: SOLID/TISSUE
User select: DRY Weight Basis

LOCATOR	PROJECT	SAMPLE	COLLECTED	Silver, Total, ICP-MS	Arsenic, Total, ICP-MS	Barium, Total, ICP-MS	Beryllium, Total, ICP-MS	Cadmium, Total, ICP-MS	Chromium, Total, ICP-MS	Copper, Total, ICP-MS	Mercury, Total, CVAA	Potassium, Total, ICP-MS	Magnesium, Total, ICP-MS	Manganese, Total, ICP-MS	Molybdenum, Total, ICP-MS	Nickel, Total, ICP-MS	Lead, Total, ICP-MS	Selenium, Total, ICP-MS	Zinc, Total, ICP-MS
				mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
I4001	421298A	L67461-1	4/24/2017 7:00	4.25	7.08	244	0.209	2.14	40.1	488	0.957	1180	5160	870	10	30.2	100	7.92	1110
I5001	421298A	L67461-2	4/10/2017 6:00	2.64	7.03	227	0.133	2.54	24.9	362	0.59	2150	7690	576	11.2	18.6	25.7	6.81	852
I6101	421298A	L67461-3	4/10/2017 9:00	2.47	2.54	149	<0.116	0.712	17.5	260	0.374	1730	3870	462	5.63	19.2	9.18	6.06	567
I4001	421298A	L67461-4	4/25/2017 6:45																
I5001	421298A	L67461-5	4/10/2017 21:00																
I6101	421298A	L67461-6	4/10/2017 17:00																

* Not converted to dry weight basis

If a parameter/analyte appears twice in the column header, it implies that they were analyzed by two different method codes

King County Environmental Lab Analytical MATRIX Report

Owner: SEEDPAK
Matrix Class: SOLID/TISSUE
User select: DRY Weight Basis

LOCATOR	PROJECT	SAMPLE	COLLECTED	*Total Solids	Boron, Total, ICP-MS	Calcium, Total, ICP-MS	Iron, Total, ICP-MS	Phosphorus, Total, ICP-MS	Sulfur, Total, ICP-MS	Total Volatile Solids	Total Phosphorus	*pH	Ammonia Nitrogen	Organic Nitrogen	Total Kjeldahl Nitrogen	*Total Solids	Salmonella	Fecal Coliform
				%	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	%	mg/Kg	pH	mg/Kg	mg/Kg	mg/Kg	%	MPN/100g	MPN/100g
I4001	421298A	L67461-1	4/24/2017 7:00	32.2	11.9	24200	20300	16000	10300	62.7	15100	8.8	5400	53100	58700			
I5001	421298A	L67461-2	4/10/2017 6:00	22.9	13.6	24500	22900	27900	9000	71.2	23400	8.72	13000	51100	64200			
I6101	421298A	L67461-3	4/10/2017 9:00	20.8	36.2	22400	7980	18600	8610	77.4	13800	8.83	9090	66800	76000			
I4001	421298A	L67461-4	4/25/2017 6:45													31	38.7	7420000
I5001	421298A	L67461-5	4/10/2017 21:00													22.6	146	3500000
I6101	421298A	L67461-6	4/10/2017 17:00													19.6	1680	40300000
* Not converted to dry weight basis																		
If a parameter/analyte appears twice in the column header,																		

King County Environmental Lab Analytical Report

	Project: 421298A Locator: I4001 Descrip: WEST POINT STP/DEW Sample: L67461-1 Matrix: SD SLUDGE ColDate: 4/24/17 7:00 TimeSpan: 23.75 TotalSolid: 32.2 DRY Weight Basis					Project: 421298A Locator: I5001 Descrip: RENTON STP/DEWATER Sample: L67461-2 Matrix: SD SLUDGE ColDate: 4/10/17 6:00 TimeSpan: 15 TotalSolid: 22.9 DRY Weight Basis					Project: 421298A Locator: I6101 Descrip: BRIGHTWATER TREATM Sample: L67461-3 Matrix: SD SLUDGE ColDate: 4/10/17 9:00 TimeSpan: 8 TotalSolid: 20.8 DRY Weight Basis				
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**
CV SM2540-E 18ED.															
Total Volatile Solids						71.2		0.022	0.0437	%	77.4		0.024	0.0481	%
CV SM2540-E 20ED.															
Total Volatile Solids	62.7		0.016	0.0311	%										
CV SM2540-G															
Total Solids*															
CV SM2540-G 18ED															
Total Solids*						22.9		0.005	0.01	%	20.8		0.005	0.01	%
CV SM2540-G 20ED															
Total Solids*	32.2		0.005	0.01	%										
CV SM4500 P . B. & C. 18ED.															
Total Phosphorus						23400		873	873	mg/Kg	13800		962	962	mg/Kg
CV SM4500-H+B 18ED															
pH*						8.72	H			pH	8.83	H			pH
CV SM4500-H+B 20ED															
pH*	8.8	H			pH										
CV SM4500-NH3-E 18ED.															
Ammonia Nitrogen						13000		21.8	21.8	mg/Kg	9090		24	24	mg/Kg
CV SM4500-NH3-E 20ED															
Ammonia Nitrogen	5400		15.5	15.5	mg/Kg										
CV SM4500-NORG-B 18ED.															
Organic Nitrogen						51100		568	568	mg/Kg	66800		625	625	mg/Kg
Total Kjeldahl Nitrogen						64200		568	568	mg/Kg	76000		625	625	mg/Kg
CV SM4500-NORG-B 20ED.															
Organic Nitrogen	53100		404	404	mg/Kg										
Total Kjeldahl Nitrogen	58700		404	404	mg/Kg										
CV SM4500-P B5 & E															
Total Phosphorus	15100		621	621	mg/Kg										
ES NONE															
Sample Code*	C				none	C				none	C				none
Sample Description*	LAAK				none	LAAK				none	LAAE				none
MC EPA-821-R-06-14 1682 MODIFIED															
Salmonella															
MC SM 9221E 20TH															
Fecal Coliform															
MT SW846 3050B(MODSB)*SW846 6020B															
Arsenic, Total, ICP-MS	7.08		0.0786	0.0786	mg/Kg	7.03		0.111	0.111	mg/Kg	2.54		0.116	0.116	mg/Kg
Barium, Total, ICP-MS	244		0.391	0.391	mg/Kg	227		0.555	0.555	mg/Kg	149		0.582	0.582	mg/Kg
Beryllium, Total, ICP-MS	0.209		0.0786	0.0786	mg/Kg	0.133		0.111	0.111	mg/Kg		<QL	0.116	0.116	mg/Kg
Boron, Total, ICP-MS	11.9		1.57	1.57	mg/Kg	13.6		2.22	2.22	mg/Kg	36.2		2.33	2.33	mg/Kg
Cadmium, Total, ICP-MS	2.14		0.0391	0.0391	mg/Kg	2.54		0.0555	0.0555	mg/Kg	0.712		0.0582	0.0582	mg/Kg
Calcium, Total, ICP-MS	24200		39.1	39.1	mg/Kg	24500		55.5	55.5	mg/Kg	22400		58.2	58.2	mg/Kg
Chromium, Total, ICP-MS	40.1		0.157	0.157	mg/Kg	24.9		0.222	0.222	mg/Kg	17.5		0.233	0.233	mg/Kg
Copper, Total, ICP-MS	488		0.786	0.786	mg/Kg	362		0.222	0.222	mg/Kg	260		0.233	0.233	mg/Kg
Iron, Total, ICP-MS	20300		7.86	7.86	mg/Kg	22900		11.1	11.1	mg/Kg	7980		11.6	11.6	mg/Kg
Lead, Total, ICP-MS	100		0.391	0.391	mg/Kg	25.7		0.111	0.111	mg/Kg	9.18		0.116	0.116	mg/Kg
Magnesium, Total, ICP-MS	5160		39.1	39.1	mg/Kg	7690		55.5	55.5	mg/Kg	3870		58.2	58.2	mg/Kg
Manganese, Total, ICP-MS	870		0.391	0.391	mg/Kg	576		0.111	0.111	mg/Kg	462		0.116	0.116	mg/Kg
Molybdenum, Total, ICP-MS	10		0.0786	0.0786	mg/Kg	11.2		0.111	0.111	mg/Kg	5.63		0.116	0.116	mg/Kg
Nickel, Total, ICP-MS	30.2		0.0786	0.0786	mg/Kg	18.6		0.111	0.111	mg/Kg	19.2		0.116	0.116	mg/Kg

King County Environmental Lab Analytical Report

	Project: 421298A Locator: I4001 Descrip: WEST POINT STP/DEW Sample: L67461-1 Matrix: SD SLUDGE ColDate: 4/24/17 7:00 TimeSpan: 23.75 TotalSolid: 32.2 **DRY Weight Basis**					Project: 421298A Locator: I5001 Descrip: RENTON STP/DEWATER Sample: L67461-2 Matrix: SD SLUDGE ColDate: 4/10/17 6:00 TimeSpan: 15 TotalSolid: 22.9 **DRY Weight Basis**					Project: 421298A Locator: I6101 Descrip: BRIGHTWATER TREATM Sample: L67461-3 Matrix: SD SLUDGE ColDate: 4/10/17 9:00 TimeSpan: 8 TotalSolid: 20.8 **DRY Weight Basis**				
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**
Phosphorus, Total, ICP-MS	16000		78.6	78.6	mg/Kg	27900		33.3	33.3	mg/Kg	18600		35	35	mg/Kg
Potassium, Total, ICP-MS	1180		78.6	78.6	mg/Kg	2150		111	111	mg/Kg	1730		116	116	mg/Kg
Selenium, Total, ICP-MS	7.92		0.391	0.391	mg/Kg	6.81		0.555	0.555	mg/Kg	6.06		0.582	0.582	mg/Kg
Silver, Total, ICP-MS	4.25		0.0314	0.0314	mg/Kg	2.64		0.0445	0.0445	mg/Kg	2.47		0.0466	0.0466	mg/Kg
Sulfur, Total, ICP-MS	10300		786	786	mg/Kg	9000		1110	1110	mg/Kg	8610		1160	1160	mg/Kg
Zinc, Total, ICP-MS	1110		1.96	1.96	mg/Kg	852		0.555	0.555	mg/Kg	567		0.582	0.582	mg/Kg
MT SW846 7471B															
Mercury, Total, CVAA	0.957		0.0602	0.0602	mg/Kg	0.59		0.0843	0.0843	mg/Kg	0.374		0.0957	0.0957	mg/Kg
* Not converted to dry weight basis															

King County Environmental Lab Analytical Report

	West Point	Renton	Brightwater
Project:	421298A	421298A	421298A
Locator:	I4001	I5001	I6101
Descrip:	WEST POINT STP/DEW	RENTON STP/DEWATER	BRIGHTWATER TREATM
Sample:	L67461-4	L67461-5	L67461-6
Matrix:	SD SLUDGE	SD SLUDGE	SD SLUDGE
ColDate:	4/25/17 6:45	4/10/17 21:00	4/10/17 17:00
TimeSpan:			
TotalSolid:	31	22.6	19.6
	DRY Weight Basis	**DRY Weight Basis**	**DRY Weight Basis**

Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
CV SM2540-E 18ED.															
Total Volatile Solids															
CV SM2540-E 20ED.															
Total Volatile Solids															
CV SM2540-G															
Total Solids*	31		0.005	0.01	%	22.6		0.005	0.01	%	19.6		0.005	0.01	%
CV SM2540-G 18ED															
Total Solids*															
CV SM2540-G 20ED															
Total Solids*															
CV SM4500 P . B. & C. 18ED.															
Total Phosphorus															
CV SM4500-H+B 18ED															
pH*															
CV SM4500-H+B 20ED															
pH*															
CV SM4500-NH3-E 18ED.															
Ammonia Nitrogen															
CV SM4500-NH3-E 20ED															
Ammonia Nitrogen															
CV SM4500-NORG-B 18ED.															
Organic Nitrogen															
Total Kjeldahl Nitrogen															
CV SM4500-NORG-B 20ED.															
Organic Nitrogen															
Total Kjeldahl Nitrogen															
CV SM4500-P B5 & E															
Total Phosphorus															
ES NONE															
Sample Code*	G				none	G				none	G				none
Sample Description*	LAAA				none	LAAA				none	LAAA				none
MC EPA-821-R-06-14 1682 MODIFIED															
Salmonella	38.7				MPN/100g	146				MPN/100g	1680				MPN/100g
MC SM 9221E 20TH															
Fecal Coliform	7420000				MPN/100g	3500000				MPN/100g	40300000				MPN/100g
MT SW846 3050B(MODSB)*SW846 6020B															
Arsenic, Total, ICP-MS															
Barium, Total, ICP-MS															
Beryllium, Total, ICP-MS															
Boron, Total, ICP-MS															
Cadmium, Total, ICP-MS															
Calcium, Total, ICP-MS															
Chromium, Total, ICP-MS															
Copper, Total, ICP-MS															
Iron, Total, ICP-MS															
Lead, Total, ICP-MS															
Magnesium, Total, ICP-MS															
Manganese, Total, ICP-MS															
Molybdenum, Total, ICP-MS															
Nickel, Total, ICP-MS															

King County Environmental Lab Analytical Report

	Project: 421298A Locator: I4001 Descrip: WEST POINT STP/DEW Sample: L67461-4 Matrix: SD SLUDGE ColDate: 4/25/17 6:45 TimeSpan: TotalSolid: 31 **DRY Weight Basis**					Project: 421298A Locator: I5001 Descrip: RENTON STP/DEWATER Sample: L67461-5 Matrix: SD SLUDGE ColDate: 4/10/17 21:00 TimeSpan: TotalSolid: 22.6 **DRY Weight Basis**					Project: 421298A Locator: I6101 Descrip: BRIGHTWATER TREATM Sample: L67461-6 Matrix: SD SLUDGE ColDate: 4/10/17 17:00 TimeSpan: TotalSolid: 19.6 **DRY Weight Basis**				
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**
Phosphorus, Total, ICP-MS															
Potassium, Total, ICP-MS															
Selenium, Total, ICP-MS															
Silver, Total, ICP-MS															
Sulfur, Total, ICP-MS															
Zinc, Total, ICP-MS															
MT SW846 7471B															
Mercury, Total, CVAA															
* Not converted to dry weight basis															

Plant Performance

May 2017

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	Avg. Flow	Amb Temp High	Amb Temp Low	Rainfall	Inf Sew Temp	Eff Temp	Primary Clarifiers In Use	Detention Time	Grit Removed	Screenings Removed
Date	MGD	DegF	DegF	Inch	Deg C	Deg C	Count	Hrs	Tons	Tons
5/1/2017	83.10	53	46	0.03	16	15	6	1.2		
5/2/2017	81.50	64	45	0.13	16	15	6	1.2	23.41	
5/3/2017	136.63	69	53	0.25	15	15	6	0.7		
5/4/2017	118.28	64	52	0.29	16	15	6	0.8		
5/5/2017	142.94	58	52	0.01	16	16	6	0.7	21.96	15.42
5/6/2017	118.55	54	43	0.09	15	15	7	0.9		
5/7/2017	84.40	59	47	0.00	16	15	8	1.5		
5/8/2017	83.68	60	49	0.00	17	15	8	1.5	22.80	
5/9/2017	80.00	62	49	0.00	16	15	8	1.6		
5/10/2017	79.68	70	51	0.00	17	16	8	1.6	27.94	
5/11/2017	108.17	58	47	0.19	17	16	8	1.2	27.19	
5/12/2017	93.31	54	46	0.07	16	15	6	1.0		
5/13/2017	100.79	56	45	0.57	16	16	6	1.0		
5/14/2017	88.34	56	47	0.05	16	15	6	1.1		
5/15/2017	105.42	51	47	0.34	17	16	6	0.9	20.54	9.42
5/16/2017	166.52	53	42	0.23	14	15	6	0.6	46.04	
5/17/2017	95.04	62	47	0.00	16	14	6	1.0	17.45	
5/18/2017	88.15	66	48	0.00	16	16	6	1.1		
5/19/2017	86.26	71	51	0.00	17	16	6	1.1		
5/20/2017	83.98	65	54	0.00	17	16	6	1.1		
5/21/2017	82.54	66	52	0.00	17	16	6	1.2		
5/22/2017	83.01	72	56	0.00	17	16	6	1.2	18.68	
5/23/2017	82.02	68	54	0.00	17	16	6	1.2		
5/24/2017	81.41	65	48	0.00	18	17	6	1.2		
5/25/2017	79.32	64	49	0.00	18	17	6	1.2	14.65	
5/26/2017	82.66	71	53	0.00	18	17	6	1.2	7.79	
5/27/2017	76.02	74	55	0.00	18	17	6	1.3		
5/28/2017	73.84	70	55	0.00	18	17	6	1.3		
5/29/2017	76.65	70	52	0.00	18	17	6	1.3	7.60	
5/30/2017	79.84	60	53	0.00	18	17	6	1.2		
5/31/2017	79.00	70	51	0.03	18	17	6	1.2	17.55	
Minimum	73.84	51	42	0.00	14	14	6	0.6	7.60	9.42
Maximum	166.52	74	56	0.57	18	17	8	1.6	46.04	15.42
Total	2,901.05			2.28					273.60	24.84
Average	93.58	63	50	0.07	17	16	6	1.1	21.05	12.42

Plant Performance

May 2017

	Inf pH	Inf BOD	Inf BOD	Inf CBOD	Inf CBOD	Inf Sol BOD	Inf TSS	Inf TSS	Inf VSS	Inf Total Solids	Inf Volatile Solids
Date	su	mg/l	Lbs	mg/l	Lbs	mg/l	mg/l	Lbs	mg/l	mg/l	mg/l
5/1/2017	7.1	204	141,383	184	127,522		189	130,987	164	651	276
5/2/2017	7.1	233	158,372	200	135,942	68	196	133,223	180	797	314
5/3/2017	7.0	188	214,225	166	189,156		182	207,388	166	695	411
5/4/2017	7.1	223	219,980	187	184,467		224	220,966	174	708	259
5/5/2017	7.1	149	177,626	130	154,976		241	287,301	177	496	234
5/6/2017	7.2	200	197,741	164	162,148		215	212,572	180	571	360
5/7/2017	7.2	223	156,969	180	126,701		200	140,779	180	606	303
5/8/2017	7.2	266	185,639	202	140,974		250	174,473	210	657	343
5/9/2017	7.1	323	215,506	257	171,470	60	400	266,880	328	687	322
5/10/2017	7.2	264	175,436	233	154,836		296	196,701	257	701	367
5/11/2017	7.0	354	319,357	303	273,348		332	299,510	284	821	495
5/12/2017	7.1	313	243,578	217	168,871		308	239,687	276	797	462
5/13/2017	7.1	245	205,944	204	171,480		222	186,611	200	630	324
5/14/2017	7.1	262	193,030	226	166,507		248	182,715	210	656	292
5/15/2017	7.1	243	213,646	196	172,324		256	225,076	210	686	281
5/16/2017	7.1	169	234,703	133	184,707	20	178	247,202	140	512	245
5/17/2017	7.1	213	168,831	205	162,490		186	147,430	178	648	315
5/18/2017	7.1	201	147,769	164	120,568		224	164,678	200	642	315
5/19/2017	6.9	184	132,371	143	102,875		174	125,177	154	619	301
5/20/2017	7.0	208	145,682	184	128,872		192	134,475	172	635	304
5/21/2017	6.9	224	154,198	177	121,844		195	134,235	173	801	500
5/22/2017	6.6	243	168,230	206	142,615		246	170,307	221	738	409
5/23/2017	6.1	241	164,855	215	147,070	74	224	153,226	200	766	336
5/24/2017	6.7	282	191,467	223	151,408		278	188,751	254	809	359
5/25/2017	7.1	303	200,443	246	162,736		300	198,459	272	809	356
5/26/2017	7.1	273	188,202	185	127,536		280	193,028	250	852	364
5/27/2017	7.1	358	226,974	245	155,332		318	201,614	294	990	456
5/28/2017	7.1	342	210,612	194	119,470		300	184,748	274	938	426
5/29/2017	6.9	307	196,253	225	143,834		340	217,349	294	925	371
5/30/2017	7.0	334	222,399	225	149,820	51	356	237,048	328	1,093	550
5/31/2017	6.9	322	212,153	235	154,832		298	196,340	248	952	371
Minimum	6.1	149	132,371	130	102,875	20	174	125,177	140	496	234
Maximum	7.2	358	319,357	303	273,348	74	400	299,510	328	1,093	550
Total			5,983,575		4,776,730			5,998,936			
Average	7.0	255	193,019	202	154,088	55	253	193,514	221	738	356

Plant Performance

May 2017

	Inf NH3-N	Inf NH3-N	Inf TKN	Inf TKN	Inf Ortho-P	Inf Ortho-P	Inf Total P	Inf Total P
Date	mg/l	Lbs	mg/l	Lbs	mg/l	lbs/day	mg/l	lbs/day
5/1/2017	20.9	14,485						
5/2/2017	21.7	14,750						
5/3/2017	15.2	17,320						
5/4/2017	17.7	17,460						
5/5/2017	19.2	22,889						
5/6/2017	23.8	23,531						
5/7/2017	33.3	23,440	54.5	38,362	3.80	2,675	6.55	4,611
5/8/2017	31.5	21,984						
5/9/2017	26.7	17,814						
5/10/2017	38.8	25,784						
5/11/2017	19.3	17,411						
5/12/2017	23.0	17,899						
5/13/2017	22.6	18,997						
5/14/2017	33.7	24,829	48.8	35,954	3.62	2,667	6.48	4,774
5/15/2017	25.7	22,596						
5/16/2017	10.9	15,138						
5/17/2017	19.9	15,773						
5/18/2017	20.8	15,292						
5/19/2017	20.7	14,892						
5/20/2017	19.4	13,588						
5/21/2017	20.0	13,768	39.5	27,191	1.90	1,308	3.23	2,223
5/22/2017	23.3	16,131						
5/23/2017	21.7	14,844						
5/24/2017	35.5	24,103						
5/25/2017	40.2	26,593						
5/26/2017	37.3	25,714						
5/27/2017	39.6	25,107						
5/28/2017	37.4	23,032						
5/29/2017	32.2	20,584	60.4	38,611	4.13	2,659	7.90	5,050
5/30/2017	42.0	27,966						
5/31/2017	40.8	26,881						
Minimum	10.9	13,588	39.5	27,191	1.90	1,308	3	2,223
Maximum	42.0	27,966	60.4	38,611	4.13	2,675	8	5,050
Total		620,593		140,119		9,309	24	16,658
Average	26.9	20,019	50.8	35,030	3.36	2,327	6	1,758

Plant Performance

May 2017

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	Final Eff pH Min	Final Eff pH Max	Final Eff BOD	Final Eff BOD	Final Eff CBOD	Final Eff CBOD	Final Eff Sol BOD	Final Eff TSS	Final Eff TSS	Final Eff VSS	Final Eff Total Solids	Final Eff Volatile Solids
Date	su	su	mg/l	Lbs	mg/l	Lbs	mg/l	mg/l	Lbs	mg/l	mg/l	mg/l
5/1/2017	6.4	6.5	52	36,039	23	15,940		48	33,267	42	527	154
5/2/2017	6.4	6.5	45	30,587	21	14,274	4	43	29,228	36	547	180
5/3/2017	6.3	6.5	45	51,277	24	27,348		42	47,859	37	431	140
5/4/2017	6.3	6.5	42	41,431	22	21,702		41	40,445	32	466	122
5/5/2017	6.3	6.6	16	19,074	11	13,113		21	25,035	18	284	79
5/6/2017	6.3	6.7	29	28,673	10	9,887		21	20,763	14	297	99
5/7/2017	6.4	6.5	42	29,564	10	7,039		18	12,670	15	388	154
5/8/2017	6.4	6.6	51	35,592	10	6,979		19	13,260	17	434	131
5/9/2017	6.3	6.6	41	27,355	11	7,339	5	23	15,346	14	447	79
5/10/2017	6.4	6.6	37	24,588	8	5,316		15	9,968	10	440	114
5/11/2017	6.3	6.6	52	46,911	12	10,826		14	12,630	10	513	203
5/12/2017	6.4	6.6	37	28,794	8	6,226		11	8,560	10	402	107
5/13/2017	6.4	6.5	28	23,536	7	5,884		10	8,406	8	437	114
5/14/2017	6.4	6.8	39	28,733	8	5,894		11	8,104	8	444	74
5/15/2017	6.5	6.6	40	35,168	9	7,913		14	12,309	12	464	85
5/16/2017	6.3	6.6	29	40,275	8	11,110	4	12	16,665	10	288	44
5/17/2017	6.5	6.6	30	23,779	7	5,548		9	7,134	8	361	75
5/18/2017	6.3	6.7	24	17,644	4	2,941		8	5,881	7	392	100
5/19/2017	6.5	6.7	30	21,582	5	3,597		8	5,755	7	405	129
5/20/2017	6.5	6.6	38	26,615	7	4,903		9	6,304	8	425	93
5/21/2017	6.5	6.6	35	24,093	6	4,130		9	6,195	7	444	104
5/22/2017	6.5	6.6	50	34,615	7	4,846		11	7,615	9	405	92
5/23/2017	6.5	6.6	48	32,834	9	6,156	4	12	8,209	11	439	118
5/24/2017	6.5	6.7	42	28,516	8	5,432		11	7,469	10	517	98
5/25/2017	6.5	6.7	34	22,492	6	3,969		9	5,954	8	589	141
5/26/2017	6.5	6.6	30	20,682	6	4,136		7	4,826	6	647	162
5/27/2017	6.4	6.5	29	18,386	5	3,170		7	4,438	6	677	164
5/28/2017	6.3	6.5	28	17,243	6	3,695		8	4,927	7	719	190
5/29/2017	6.3	6.4	27	17,260	5	3,196		9	5,753	6	715	187
5/30/2017	6.3	6.7	31	20,642	7	4,661	5	11	7,325	10	735	262
5/31/2017	6.4	6.6	32	21,084	8	5,271		10	6,589	7	698	127
Minimum	6.3		16	17,243	4	2,941	4	7	4,438	6	284	44
Maximum		6.8	52	51,277	24	27,348	5	48	47,859	42	735	262
Total				875,064		242,442	22		408,885		14,977	3,918
Average			37	28,228	10	7,821	4	16	13,190	13	483	126

Plant Performance

May 2017

	Final Eff NH3-N	Final Eff NH3-N	Final Eff TKN	Final Eff TKN	Final Eff Ortho-P	Final Eff Ortho-P	Final Eff Total P	Final Eff Total P	Final Eff NO3-NO2	Eff Fecal Coliform	Pre-Dechlor Residual	Eff Chlorine Residual	Eff Chlorine
Date	mg/l	Lbs	mg/l	Lbs	mg/l	Lbs	mg/l	Lbs	mg/l	Counts/100	mg/l	ug/l	lbs/day
5/1/2017	12.9	8,940			1.37	949				0	1.06	60	42
5/2/2017	12.5	8,496								0	1.06	60	41
5/3/2017										40	0.90	110	125
5/4/2017										0	0.85	80	79
5/5/2017										0	0.83	280	334
5/6/2017										20	0.93	70	69
5/7/2017	12.8	9,010	16.5	11,614	1.66	1,168	2.13	1,499		0	1.05	150	106
5/8/2017										0	0.90	110	77
5/9/2017										0	1.04	110	73
5/10/2017										0	1.05	40	27
5/11/2017										0	0.92	120	108
5/12/2017										0	0.85	40	31
5/13/2017										0	0.84	110	92
5/14/2017	13.9	10,241	20.5	15,103	2.00	1,474	2.28	1,680		0	0.86	50	37
5/15/2017									6.48	0	0.82	120	106
5/16/2017										70	0.70	80	111
5/17/2017										0	0.74	20	16
5/18/2017										0	0.74	30	22
5/19/2017										20	0.74	40	29
5/20/2017										0	0.83	110	77
5/21/2017			20.3	13,974	2.44	1,680	2.72	1,872		0	0.87	220	151
5/22/2017	13.7	9,485								0	0.73	50	35
5/23/2017										20	0.74	80	55
5/24/2017										0	0.83	80	54
5/25/2017										0	0.75	40	26
5/26/2017										0	0.72	50	34
5/27/2017										0	0.65	50	32
5/28/2017										0	0.62	70	43
5/29/2017	10.8	6,904	14.7	9,397	2.18	1,803	3.10	1,982		0	0.58	80	51
5/30/2017										0	0.71	110	73
5/31/2017										0	0.67	120	79
Minimum	10.8	6,904	14.7	9,397	1.37	949	2	1,499	6	0	0.58	20	16
Maximum	13.9	10,241	20.5	15,103	2.44	1,803	3	1,982	6	70	1.06	280	334
Total		53,076		50,089		7,074	10	7,033	6				2,235
Average	12.8	8,846	18.0	12,522	1.93	1,415	3	1,758	6	2	0.83	88	72

PERMIT SUMMARY

Month May, 2017

Avg Flow (MGD) for this month is: 93.58

Removal Requirement 80 % Nov-Apr

85 % May-Oct

Item	CBOD		%CBOD Removal		TSS		%TSS Removal		Fecal Coliforms	Residual Chlorine	pH (6.0-9.0)	
Week	mg/l	ppd			mg/l	ppd			MPN/100ml	ug/l	min	max
05/06/17	19	16,430			35	30,970			3			
05/13/17	9	7,087			16	11,549			1			
05/20/17	7	5,987			10	8,879			3			
05/27/17	7	4,549			9	6,386			2			
05/31/17	6	4,177			9	6,094			2			
Monthly Avg	10	7,821	95	%	16	13,190	94	%	2	88		
Daily Max										280	6.3	6.8
Weekly Max	19	16,434			35	30,966			3			
Exceptions												
Monthly	0	0	0		0	0	0		0	0	0	0
Weekly	0	0			0	0			0			
Daily										0		
Sub-Totals												
Total Overall	0	0	0		0	0	0		0	0	0	0

Parameter	Average Monthly				Average Weekly	Maximum Daily
CBOD	25 mg/l	or 15% or inf	30 mg/l		40 mg/l	
	44,800 lbs/day				71,700 lbs/day	
	80% Removal (Nov-Apr)				85% Removal (May-Oct)	
TSS	30 mg/l	or 15% or inf	38 mg/l		45 mg/l	
	53,800 lbs/day				80,700 lbs/day	
	80% Removal (Nov-Apr)				85% Removal (May-Oct)	
Fecals	200/100 ml				400/100 ml	
pH	Daily minimum is equal to or greater than 6.0 and the daily					
	maximum is less than or equal to 9.0.					
Residual Cl2	139 ug/l				The daily average concentration is	364 ug/l

2006 CSO PERMIT UPDATE REPORT

This year's update report includes two sheets:
1) Both sheets have been formatted to assist in editing. If you would prefer a non-formatted version please contact the sender.
2) "Permits" Sheet - contains general information about active, individual CSO permits and may require updating using the provided instructions
3) "Outfalls" Sheet- contains a list of active CSO outfalls and their locations. The list may require updating locational information or outfall status using the provided instructions.

Instructions for "Permits" Sheet:

Table Column Definitions:

1) Permittee Status	Status - ACTIVE, SEPARATED, or ELIMINATED
2) NPDES	NPDES Permit Number
3) Facility Name	Facility Name
4) City (Mail)	Facility City
5) Permit Expire Date	Permit Expiration date as recorded in PCS
6) Current Outfalls	Number of permitted CSO outfalls (as currently permitted according to our last update)
7) Difference	The difference between the "current" number of CSO outfalls and the number of outfalls on record with locational information.
8) Status of Phase I Permit	Status of Nine Minimum Controls
i) CSO Controls develop?	Have the CSO controls required by your permit been identified (Yes/No)?
ii) CSO Controls implemented?	Have the CSO controls required by your permit been implemented (Yes/No)?
9) Status of Phase II Permit	Status of LTCP
i) LTCP Required?	Does this facility have a requirement to develop a LTCP as defined in the CSO Control Policy? (Yes/No)
ii) LTCP Type	If a LTCP is required, is it required in the NPDES permit (PER) or some other enforceable mechanism (ENF)?
iii) LTCP Submitted?	Has the LTCP been submitted? (Yes/No)
iv) LTCP Approval?	If submitted, has the LTCP been approved? (Yes/No)
v) LTCP Approval Date	Date of LTCP approval

Instructions:
All updates can be made within this spreadsheet.
Shaded cells are areas where we suspect updating maybe needed.
1) Confirm the "Permitee Status" and update if necessary. You can update a cell by clicking on the cell containing the incorrect information and choosing either ACTIVE, SEPARATED, or ELIMINATED.
2) Verify "Permit Expiration Date" and update if necessary. The green shaded cells indicate past permit expiration dates.
3) Check "Current Outfalls" and update if necessary. Red shaded cells indicate the number is greater than the number of outfalls for which we have locational information and this number may be too high. Blue shaded cells indicate the number is less than the number of outfalls for which we have locational information and this number may be too low.
4) Check the NMC information. It is assumed that if an LTCP is Required that NMCs have been developed and implemented. Yellow shaded cells indicated an LTCP is Not Required and an update to the NMC Developed and Implemented cells is required.
5) Check LTCP information (required, submitted, approved, and approval date) and update if necessary.
Aqua colored cells indicate that a comment must be entered in the "Comment" field to indicate why a LTCP is not required.
The orange shaded cells indicate information that may need to be updated.

Instructions for "Outfalls" Sheet:

Table Column Definitions:	Status - ACTIVE, SEPARATED, or ELIMINATED
1) Outfall Status	CSO Outfall Number
2) Outfall #	NPDES Permit Number
3) NPDES	Facility Name
4) Facility Name	Name of the water body that the outfall discharges to
5) Receiving Water	Name of the nearest street to outfall location
6) Street Location	Latitude of the outfall location
7) Latitude	Longitude of the outfall location
8) Longitude	

Instructions:
For permits where it is known that outfalls have been separated, eliminated, or locational information is missing:
1) Go to the "Outfalls" Sheet. Click on the NPDES column and select the corresponding permit number.
2) Update the "Outfall Status" if that outfall has been SEPARATED or ELIMINATED.
The number of outfalls that may require an update to the "Status" may likely coincide with the "Difference" on the "Permits" sheet.
3) Update any missing outfall locational information. The missing locational information can be found on the permit documentation.

For permits with shaded "Current Outfalls" and shaded "Difference":
1) On the "Permits" Sheet find the NPDES permit number that has a blue or red shaded "Difference". If the "Difference" is shaded in blue this equals the number of permitted outfalls that we expect may need to be added to the Outfalls sheet. If the "Difference" is shaded in red this equals the number of outfalls we expect require an update to the "Outfall Status" to SEPARATED or ELIMINATED.
2) Go to the "Outfalls" Sheet. Click on the NPDES column and select the corresponding permit number.
3) Update the "Outfall Status" if that outfall has been SEPARATED or ELIMINATED. Or update any missing outfall locational information if active outfalls are not listed. The missing outfall information can be found on the permit documentation. The number of outfalls that require updating will likely coincide with the "Difference" on the "Permits" sheet.

As shown in "Permitted Outfall Locations"			Fill in data for each discharge event							
Outfall #	CSO Name	Receiving Water	Event Starting Date/Time	Event Ending Date/Time	Duration (hours)	Volume (gallons)	Precipitation (inches)	Storm Duration (hours)	Note if DWO	Comments
003	Ballard Siphon Regulator via Seattle Storm Drain	Lake Washington Ship Canal			0.00	0				
004	East Ballard (AKA 11th Ave NW)	Lake Washington Ship Canal	5/4/17 6:19 PM	5/4/17 6:45 PM	0.43	274,432	0.37	2.02		
004	East Ballard (AKA 11th Ave NW)	Lake Washington Ship Canal	5/16/17 5:40 AM	5/16/17 11:10 AM	5.50	98,567	0.74	40.72		
006	Magnolia Overflow	Elliot Bay/Puget Sound	5/4/17 6:06 PM	5/4/17 10:02 PM	3.93	16,103	0.32	5.60		
006	Magnolia Overflow	Elliot Bay/Puget Sound	5/16/17 5:46 AM	5/16/17 10:38 AM	4.87	307	0.58	21.43		
007	Canal Street Overflow	Lake Washington Ship Canal			0.00	0				
008	3rd Ave W and Ewing St	Lake Washington Ship Canal			0.00	0				
009	Dexter Ave Regulator	Lake Union			0.00	0				
011	E Pine St. Pump Station Emergency Overflow	Lake Washington			0.00	0				
012	Belvoir Pump Station Emergency Overflow	Lake Washington			0.00	0				
013	Martin Luther King Way Trunkline Overflow	Lake Washington via storm drain			0.00	0				
014	Montlake Overflow	Lake Washington Ship Canal	5/5/17 4:21 AM	5/5/17 4:33 AM	0.20	284,028	0.56	12.32		
015	University Regulator	Lake Washington Ship Canal			0.00	0				
018	Matthews Park Pump Station Emergency Overflows	Lake Washington			0.00	0				
027a	Denny Way Regulator	Elliott Bay			0.00	0				
028	King Street Regulator	Elliott Bay			0.00	0				
029	Connecticut St. Regulator (AKA Kingdome)	Elliott Bay			0.00	0				
030	Lander St Regulator	Elliott Bay			0.00	0				
031	Hanford #1	Duwamish River via Diagonal Storm Drain	5/4/17 6:24 PM	5/5/17 4:27 AM	10.05	55,612	0.43	12.28		
032	Hanford #2 Regulator	Duwamish River - East Waterway			0.00	0				
033	Rainier Ave. Pump Station	Lake Washington			0.00	0				
034	East Duwamish	Duwamish River			0.00	0				
035	West Duwamish	Duwamish River			0.00	0				
036	Chelan Ave. Regulator	West Waterway of Duwamish River			0.00	0				
037	Harbor Avenue Regulator	Duwamish River into Elliott Bay			0.00	0				
038	Terminal 115 Overflow	Duwamish River			0.00	0				
039	Michigan Regulator (AKA S. Michigan Regulator)	Duwamish River	5/6/17 3:27 AM	5/6/17 4:13 AM	0.77	50,803	0.85	35.02		
040	8th Ave South Regulator (AKA W. Marginal Way Pump Station)	Duwamish River			0.00	0				
041	Brandon Street Regulator	Duwamish River			0.00	0				
042	West Michigan (AKA SW Michigan St regulator)	Duwamish River			0.00	0				
043	East Marginal Pump Station	Duwamish River			0.00	0				
044a	Norfolk local drainage	Duwamish River			0.00	0				
045	Henderson Pump Station	Lake Washington			0.00	0				
048a	North Beach Pump Station (wet well)	Puget Sound			0.00	0				

As shown in "Permitted Outfall Locations"			Fill in data for each discharge event							
Outfall #	CSO Name	Receiving Water	Event Starting Date/Time	Event Ending Date/Time	Duration (hours)	Volume (gallons)	Precipitation (inches)	Storm Duration (hours)	Note if DWO	Comments
048b	North Beach Pump Station (inlet structure)	Puget Sound			0.00	0				
049	30th Avenue NE Pump Station	Lake Washington			0.00	0				
052	53rd Avenue SW Pump Station	Puget Sound			0.00	0				
054	63rd Avenue SW Pump Station	Puget Sound			0.00	0				
055	SW Alaska Street Overflow	Puget Sound			0.00	0				
056	Murray Street Pump Station	Puget Sound			0.00	0				
057	Barton Street Pump Station	Puget Sound	5/4/17 5:56 PM	5/4/17 6:10 PM	0.23	49,015	0.37	2.00		

NPDES	Outfall #	CSO Name	Facility Name	Receiving Water	Event Ending Date/Time	Event Starting Date/Time	Duration (hours)	Volume (gallons)	Precipitation (inches)	Storm Duration (hours)	Note if DWO	Comments
WA0029182	027b	Elliott West CSO Treatment Facility	Metropolitan King County - West Point	Puget Sound								
WA0029182	044b	Henderson/MLK CSO Treatment Facility	Metropolitan King County - West Point	Duwamish River								
WA0029182	046b	Carkeek CSO Treatment Facility Outfall	Metropolitan King County - West Point	Puget Sound								
WA0029182	051b	Alki CSO Treatment Facility Outfall	Metropolitan King County - West Point	Puget Sound								

King County
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June 6, 2017

To: Robert Waddle, WTD Operations Manager

From: Rick Butler, East Section Process Control Supervisor
John Cameron, East Section Assistant Operations Manager
Teresa Allen, East Section Chief Process Analyst

Subject: Martin Luther King/Henderson Combined Sewer Overflow (CSO) Facility – May 2017

There were no filling events into the tunnel at the MLK/Henderson Combined Sewer Overflow (CSO) Treatment facility in May. The MLK/Henderson CSO treatment system is permitted under the West Point NPDES permit, WA-002918-1. The MLK CSO treatment was fully functional in May 2017.

2.28 inches of rain fell in May (SeaTac Airport); the historic average is 1.94 inches. Rainfall total was 2.37 inches using the rain gauge at the Henderson Pump Station (the nearest gauge to the CSO treatment system).

Plant Performance/PMR Log Book Report

General Notes: we=weekend; le=lab error; hd= holiday; nm=not measured; nr=not reportable.

May , 2017

5/2/2017 WAS flow reduced to 850 gpm to SE.

5/3/2017 WAS introduced to RSBT. 850 gpm to SE, 285 gpm to RSBT.

5/4/2017 WAS to SE reduced to 420 gpm, WAS to RSBT increased to 780 gpm.

5/8/2017 WAS to SE reduced to 300, WAS to RSBT at 730 gpm.

5/9/2017 WAS no longer sent to SE.

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TTY Relay: 711

June 5, 2017

TO: Robert Waddle, WTD Operations Manager

FROM: Eugene Sugita, West Section Process Control Supervisor
Karl Zimmer, West Section Assistant Operations Manager
Pedro de Arteaga, West Section Process Analyst I
Jessica Tanumihardja, West Section Process Analyst I

SUBJECT: Elliott West Combined Sewer Overflow (CSO) Facility – May 2017

This report summarizes Elliott West Combined Sewer Overflow (EWCSO) Facility's performance during May 2017. This facility operates under West Point Permit No.WA-002918-1. The daily reporting period is from 0700 to 0700.

The main pumps at the EWCSO storage facility either recycle the flows to West Point via the Elliott Bay Interceptor (EBI), or discharge treated flows to Elliott Bay via the Elliott West Outfall, depending on the levels in the collection system.

There were three inflow and no discharge events during the month of May. The inflow volume was 11.31 million gallons (MG), and all was returned for treatment at the West Point Treatment Plant. The monthly solids removal for Elliott West CSO TP was calculated at 82.3%. Precipitation totaled 2.00 inches for the month, as measured at the Denny Way station rain gauge which is located at 3165 Alaskan Way in Seattle. A total of 2.28 inches of precipitation was reported at Seattle-Tacoma Airport (Sea-Tac) for the month.

Effluent Quality Report

WEST POINT TREATMENT PLANT

MONTH: May

YEAR: 2017

PARAMETER	Average	Maximum	Minimum
Flow*	93.58	166.52	73.84
pH		6.8	6.3
Fecal Colif/100ml	2	70	0

PARAMETER	CONCENTRATION (mg/l)			QUANTITY (lbs/day)		
	Average	Maximum	Minimum	Average	Maximum	Minimum
CBOD (INFLUENT)	202	303	130	154,088	273,348	102,875
CBOD	10	24	4	7,821	27,348	2,941
TSS (INFLUENT)	253	400	174	193,514	299,510	125,177
TSS	16	48	7	13,190	47,859	4,438
NH3-N	12.8	13.9	10.8	8,846	10,241	6,904
TKN	18.0	20.5	14.7	12,522	15,103	9,397
PO4P	2.06	2.82	1.37	1,415	1,803	949
RESIDUAL CHLORINE	0.088	0.280	0.020	72	334	16
ARSENIC (INF)						
CADMIUM (INF)						
CHROMIUM (INF)						
COPPER (INF)						
LEAD (INF)						
NICKEL (INF)						
SILVER (INF)						
ZINC (INF)						

King County
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West Point Treatment Plant, WTP-NR-0100
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Seattle, WA 98199-1044

June 12, 2017

TO: Robert Waddle, WTD Operations Manager

FROM: Process Control Staff

SUBJECT: West Point Treatment Plant Performance Report – May 2017

Seattle had a slightly wetter than normal May. West Point recorded a total of 2.28 inches of precipitation for the month, with recorded precipitation on twelve days. The wettest day was May 13, with 0.57 inches of rain. SeaTac recorded 2.28 inches of precipitation (the same as West Point), 0.34 inches above the normal May rainfall of 1.94 inches. Boeing Field recorded 2.39 inches of precipitation, 0.79 inches above the normal 1.60 inches. The National Weather Service Office at Sand Point recorded 3.15 inches of precipitation, 0.99 inches above the normal 2.16 inches. Total Plant flow at West Point averaged 93.58 MGD, 15.70 MGD above the average May flow for the previous five years (77.88 MGD). North end flows were sent to South Plant and Brightwater via Woodinville and North Creek.

There were no NPDES Permit exceptions during the month. Plant restoration continued throughout the month. All flow received full secondary treatment. In May primary flow continued to be mostly processed through the West primary tanks. In the East primary area, the Southeast quadrant was fully restored and available by May 11. Restoration continues on the Northeast quadrant. Digester feed was slowly stepped up throughout the month. Feed was increased to the digesters, but excess solids continued to be hauled to South Plant. Digester 5 cleaning was completed and the digester put back in service on May 18. The plant emergency bypass gate remained closed throughout the month, but was available for use if needed.

Key Measures

Volume Treated	2901	million gallons
Permit Compliance	0	exceptions
Biosolids	2927	wet tons hauled
	857	dry tons hauled
	29.29%	cake total solids

Permit Compliance Summary – May 2017

Flow (mgd)	cBOD (mg/l)	TSS (mg/l)	cBOD (% Removal)	TSS (% Removal)	Fecal Coliforms (counts/100 ml)	Chlorine Residual (µg/l)
	Plant/Permit	Plant/Permit	Plant/Permit	Plant/Permit	Plant/Permit	Plant/Permit
93.58	10/25	16/30	95/85	94/85	2/200	88/139

West Point's NPDES Permit requires 85% removal of cBOD and TSS during the dry season months of May through October. The Permit also sets effluent concentration limits of 25 mg/l for cBOD and 30 mg/l for TSS, or 15% of influent values during the dry season months, whichever is more stringent. For May 2017, the effluent concentration limits were 25 mg/l for cBOD and 30 mg/l for TSS.

Process Control

Total plant flow for the month was 2901.05 million gallons. All plant flow received full treatment. No flow was diverted around secondary.

Date	Secondary Diversion Volume (MG)	Reason for Diversion

For the month, influent and effluent cBOD concentrations averaged 202 mg/l and 10 mg/l, respectively (95% removal); influent and effluent TSS averaged 253 mg/l and 16 mg/l, respectively (94% removal).

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June 5, 2017

TO: Robert Waddle, WTD Operations Manager

FROM: Eugene Sugita, West Section Process Control Supervisor
Karl Zimmer, West Section Assistant Operations Manager
Pedro de Arteaga, West Section Process Analyst I
Jessica Tanumihardja, West Section Process Analyst I

SUBJECT: Carkeek Park Combined Sewer Overflow (CSO) Facility – May 2017

This report summarizes the facility's performance during May 2017. The facility operates under the West Point Permit No. WA-002918-1. The daily reporting period is from 0700 to 0700.

An "inflow event" begins when flow exceeds the pump station capacity and begins to fill the process tanks of the facility. An inflow event becomes a "discharge event" with the onset of discharge from the facility to Puget Sound. Subsequent inflows or discharges on consecutive days are considered part of the same event until there is a 24-hour period of no inflows or no discharge. Once the inflow drops off or stops, the contents of the process tanks are transferred back to the pump station wet well and pumped to West Point.

There were two inflow events and no discharge events during the month of May. The inflow volume was 0.32 million gallons (MG), and all was returned for treatment at the West Point Treatment Plant. Precipitation totaled 2.52 inches for the month as measured at the Ballard Rain Gauge Station, which is located at 5110 Shilshole Avenue NW in Seattle. A total of 2.28 inches of precipitation was reported at Seattle-Tacoma Airport (Sea-Tac) for the month.

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June 5, 2017

TO: Robert Waddle, WTD Operations Manager

FROM: Eugene Sugita, West Section Process Control Supervisor
Karl Zimmer, West Section Offsite Assistant Operations Manager
Pedro de Arteaga, West Section Process Analyst I
Jessica Tanumihardja, West Section Process Analyst I

SUBJECT: Alki Combined Sewer Overflow (CSO) Facility – May 2017

This report summarizes the facility's performance during May 2017. The facility operates under the West Point Permit No. WA-002918-1. The daily reporting period is from 0700 to 0700.

There was one inflow event and no discharge events during the month of May. The inflow volume was 0.80 million gallons (MG), and all was returned for treatment at the West Point Treatment Plant. The total precipitation for the month was 2.11 inches (based on the rain gauge at the County's Chelan Pump Station, the nearest gauge to the Alki Treatment System). A total of 2.28 inches of precipitation was reported at Seattle-Tacoma Airport (Sea-Tac) for the month.