Outfall Number	Outfall Description	Maximum Daily Value Flow Rate (kcfs?)	BOD mass (lbs)	BOD conc (mg/L)	TSS mass (lbs)	TSS conc (mg/L)	Fecal mass (lbs)
1	Fish Unit #2 Non-contact cooling water	1.15	0	nd	41	4	NA
2	Fish Unit #1 Non-contact cooling water	1.15	0	nd	317	33	NA
3	CAC2	1.87	0	nd	203	13	NA
4a	MU18 Non-Contact Cooling Water	0.94	0	nd	15	2	NA
4b	MU 18 Thrust Bearing Cooling Water	1.01	0	nd	28	3	NA
5a	MU17 Non-Contact Cooling Water	0.94	0	nd	14	2	NA
5b	MU 17 Thrust Bearing Cooling Water	1.01	0	nd	13	2	NA
6a	MU16 Non-Contact Cooling Water	0.94	0	nd	0	nd	NA
6b	MU 16 Thrust Bearing Cooling Water	1.01	19	2.3	0	nd	NA
7a	MU15 Non-Contact Cooling Water	0.94	0	nd	31	4	NA
7b	MU 15 Thrust Bearing Cooling Water	1.01	0	nd	12	1	NA
8a	MU14 Non-Contact Cooling Water	0.94	16	2	14	2	NA
8b	MU 14 Thrust Bearing Cooling Water	1.01	31	3.7	12	1	NA
9a	MU13 Non-Contact Cooling Water	0.94	0	0	16	2	NA
9b	MU 13 Thrust Bearing Cooling Water	1.01	23	2.7	27	3	NA
10a	MU12 Non-Contact Cooling Water	0.94	0	0	12	2	NA
10b	MU 12 Thrust Bearing Cooling Water	1.01	0	0	109	13	NA
11a	MU11 Non-Contact Cooling Water	0.94	NA	NA	NA	NA	NA
11b	MU 11 Thrust Bearing Cooling Water	1.01	NA	NA	NA	NA	NA
12	OWS	-	0	nd	7	1	0
13	CAC1	-	0	nd	156	10	0
14	Unwatering Sump	-	0	nd	34	6	0
15	Drainage Sump	-			11	6	0
		Average	4	1.5	51	5.8	0.0
		Minimum	0	0.0	0	1.0	0.0
		Maximum	31	3.7	317	33.0	0.0
	SIG FIGS		2	0	1	0	0

Fecal conc (mg/L)	TRC mass (lbs)	TRC conc (mg/L)	Oil and Grease mass (lbs)	Oil and Grease conc (mg/L)	COD mass (lbs)	COD conc (mg/L)	TOC mass (lbs)	TOC conc (mg/L)	Ammonia mass (lbs)	Ammonia conc (mg/L)	Discharge Flow (cfs)
NA	NA	NA	0	nd	0	nd	14	1.5	0	nd	800
NA	NA	NA	0	nd	0	nd	14	1.5	0	nd	800
NA	NA	NA	0	nd	0	nd	23	1.5	0	nd	1300
NA	NA	NA	0	nd	0	nd	12	1.5	0	nd	650
NA	NA	NA	0	nd	0	nd	13	1.5	2.44	0.29	700
NA	NA	NA	0	nd	0	nd	12	1.5	0	nd	650
NA	NA	NA	0	nd	0	nd	12	1.4	0	nd	700
NA	NA	NA	0	nd	0	nd	13	1.7	0	nd	650
NA	NA	NA	0	nd	0	nd	19	2.3	0	nd	700
NA	NA	NA	0	nd	0	nd	13	1.7	0	nd	650
NA	NA	NA	0	nd	0	nd	13	1.5	0	nd	700
NA	NA	NA	0	nd	0	nd	14	1.8	0	nd	650
NA	NA	NA	0	nd	0	nd	24	2.9	0	nd	700
NA	NA	NA	0	nd	0	nd	13	1.7	0	nd	650
NA	NA	NA	0	nd	0	nd	19	2.3	0	0	700
NA	NA	NA	0	nd	0	nd	12	1.5	0	0	650
NA	NA	NA	0	nd	0	nd	13	1.6	0	nd	700
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	650
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	700
nd	0	nd	0	nd	0	nd	0	nd	0	nd	600
nd	0	nd	0	nd	0	nd	27	1.7	0	nd	1300
nd	0	nd	0	nd	0	nd					7000
nd	0	nd	0	nd	0	nd	2	1.2	0	nd	3000
NA	0.0	NA	0.0	NA	0.0	NA	14	1.7	0.1	0.1	1113
NA	0.0	NA	0.0	NA	0.0	NA	0	1.2	0.0	0.0	600
NA	0.0	NA	0.0	NA	0.0	NA	27	2.9	2.44	0.29	7000
							0	1	2	2	0

pH	Winter temp (C)	Summer Temp (C)
7.9	-	23.8
8.1	-	24.3
8.1	-	22.2
8.1	-	22.7
8.1	-	22.6
8	-	21.8
8	-	21.8
8.1	-	16.6
8	-	15.4
8.1	-	22.7
8.1	-	22.3
8.1	-	23.1
8.1	-	23.1
8.1	-	22.9
8.1	-	23
8.1	-	19.3
8.1	-	22.8
	-	
	-	
7.7	-	17.8
8.1	-	20.6
7.6	-	16.4
7.5		16.2
8.0	-	21.0
7.5	-	15.4
8.10	-	24.30

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Outfall #	Outfall description	Maximum Daily Flow	BOD	COD
1	Unwatering sump	9	ND	10
2	Drainage sump	1.44	ND	10
3	MU 1&2 Non-Contact Cooling Water	1.44	ND	10
4	MU 3&4 Non-Contact Cooling Water	2.448	ND	ND
5	MU 5&6 Non-Contact Cooling Water	2.448	ND	ND
6	MU 7&8 Non-Contact Cooling Water	2.448	ND	ND
7	MU 9&10 Non-Contact Cooling Water	2.448	ND	ND
8	MU 11&12 Non-Contact Cooling Water	2.448	ND	ND
9	MU 13&14 Non-Contact Cooling Water	2.448	ND	ND
10	MU 15&16 Non-Contact Cooling Water	2.448	ND	ND
11	MU 17&18 Non-Contact Cooling Water	2.448	ND	ND
12	MU 19&20 Non-Contact Cooling Water	2.448	ND	ND
13	MU 21&22 Non-Contact Cooling Water	2.448	ND	ND
14	***Fish Units 1 &2 Cooling Water***	0.4392	ND	ND
15	***South Spillway Sump***	0.036	ND	ND
16	***North Spillway Sump***	0.0072	ND	ND
17	Navigation Lock Drainage Sump	0.00144	ND	ND
18	Transformer Cooling Water #1	1.872	ND	ND
19	Transformer Cooling Water #2	1.872	ND	ND
20	Transformer Cooling Water #3	1.872	ND	ND
21	Transformer Cooling Water #4	1.872	ND	220
22	Transformer Cooling Water #5	1.872	ND	ND
23	Transformer Cooling Water #6	1.872	ND	ND
24	Transformer Cooling Water #7	1.872	ND	ND
25	Transformer Cooling Water #8	1.872	ND	ND
26	Transformer Cooling Water #9	1.872	ND	ND
27	Transformer Cooling Water #10	1.872	ND	ND
28	Transformer Cooling Water #11	1.872	ND	ND
29	Transformer Cooling Water #12	1.872	ND	ND
30	Transformer Cooling Water #13	1.872	ND	ND
31	Transformer Cooling Water #14	1.872	3.1	ND

			BOD conc	TSS mass
32	Station Service 01 & 02 Cooling Water	0.2088		nd
33	Transformer T04 Cooling Water	0.1728	0	nd
34	Transformer T01 Cooling Water	0.1728	0	nd
35	Auxiliary Water Pump	0.072		

			BOD	COD
		53.1216		
average		average	3.1	52.2
min		minimum	3.1	10
max		max	3.1	220

TOC	TSS	Ammonia	Flow	Temp (winter)	Temp(summer)
1.72	2.5	ND	6250	60	
1.28	1.5	ND	1000	66	
1.73	3	ND	1700	68	
2.06	6.5	ND	1700	66	
1.8	3.5	ND	1700	67	
1.52	3.5	ND	1700	66	
1.59	3.5	ND	1700	67	
1.7	5.5	ND	1700	66	
1.63	3.5	ND	1700	65	
1.64	4.5	ND	1700	66	
1.39	24	ND	1700	68	
1.32	9.5	ND	1700	68	
1.2	5.5	ND	1700	67	
1.46	3	ND	305	67	
1.08	0.5	ND	25	60	
1.17	5.5	ND	5	66	
1.16	1	ND	1	67	
2.7	4	ND	1300	54	
2.5	6	ND	1300	53	
2.3	ND	ND	1300	53	
1.8	4	ND	1300	73	
2.2	2	ND	1300	54	
2.3	6	ND	1300	54	
2	2	ND	1300	55	
2.4	2	ND	1300	55	
2.1	4	ND	1300	54	
2.2	8	ND	1300	54	
2.1	10	ND	1300	54	
2.1	8	ND	1300	53	
2	8	ND	1300	53	
2.3	8	ND	1300	53	

TSS conc	Fecal mass	Fecal conc	TRC mass	TRC conc	Oil and Grease mass
0	nd	na	na	na	na
0	nd	na	na	na	na
0	nd	na	na	na	na

TOC	TSS	Ammonia	Temperature (winter)
1.764117647	5.283333333	0.32	15.98529412
0.92	0.5	0.32	11.66666667
2.7	24	0.32	17.3

pH (min)	pH (max)	temp (C, sinter)
6.5	8.5	15.55555556
6.5	8.5	18.88888889
6.5	8.5	20
6.5	8.5	18.88888889
6.5	8.5	19.44444444
6.5	8.5	18.88888889
6.5	8.5	19.44444444
6.5	8.5	18.88888889
6.5	8.5	18.33333333
6.5	8.5	18.88888889
6.5	8.5	20
6.5	8.5	20
6.5	8.5	19.44444444
6.5	8.5	19.44444444
6.5	8.5	15.55555556
6.5	8.5	18.88888889
6.5	8.5	19.44444444
6.5	8.9	12.22222222
6.8	8.9	11.66666667
6.8	8.9	11.66666667
6.8	8.9	22.77777778
6.8	8.9	12.22222222
6.8	8.9	12.22222222
6.8	8.9	12.77777778
6.8	8.9	12.77777778
6.8	8.9	12.22222222
6.8	8.9	12.22222222
6.8	8.9	12.22222222
6.8	8.9	11.66666667
6.8	8.9	11.66666667
6.8	8.9	11.66666667

Oil and Grease conc	COD mass	COD conc	TOC mass	TOC conc	Ammonia mass	Ammonia conc
0	nd	13.21	11	1.92	1.6	0.38
0	nd	0	nd	1.2	1.01	0
0	nd	0	nd	1.1	0.92	0

Discharge Flow	pH	Winter temp	Summer Temp	Summer Temp
0.32	145	7.32	12.8	
nd	120	7.83	13.4	
nd	120	7.61	17.3	

Cell: E45
Comment: Wu, Jennifer:
Check applications; rows are off.

Outfall Number	Outfall Description	Maximum Daily Value Flow Rate (kcfs?)	BOD mass (lbs)	BOD conc (mg/L)	TSS mass (lbs)	TSS conc (mg/L)	Fecal mass (lbs)	Fecal conc (mg/L)
18	Main Unit (MU) 15 Non-contact cooling water	2.16	NA	NA	NA	NA	NA	NA
19	MU 16 Non-contact Cooling Water	2.16	0	nd	31	2	NA	NA
20	Unwatering Sump Pump 3	14.40	0	nd	288	2	NA	NA
21	Unwatering Sump Pump 4	14.40	NA	NA	NA	NA	NA	NA
23	Central Non-Overflow (CNO) Pumps 9, 10, 11	3.60	0	nd	0	nd	NA	NA
		3.60						
		3.60						
26	Spillway Drainage Sump Pumps 8, 8A		0	nd	0	nd	NA	NA
27	Nav Lock Fill Valve Tainter 4	2.16	NA	NA	NA	NA	NA	NA
28	Nav Lock Drainage Sump 3	4.32	198	5.5	43	1	NA	NA
29	Nav Lock Pump 4	0.22	0	nd	0	nd	NA	NA
43	Powerhouse HVAC Cooling Water	0.17	0	nd	9	6	NA	NA
		Average	28	5.5	53	2.8	NA	NA
		Minimum	0	5.5	0	1.2	NA	NA
		Maximum	198	5.5	288	5.9	NA	NA

TRC mass (lbs)	TRC conc (mg/L)	Oil and Grease mass (lbs)	Oil and Grease conc (mg/L)	COD mass (lbs)	COD conc (mg/L)	TOC mass (lbs)	TOC conc (mg/L)	Ammonia mass (lbs)	Ammonia conc (mg/L)
NA	NA	NA	nd	NA	NA	NA	NA	NA	NA
NA	NA	0	nd	0	nd	31	1.7	2.16	0.12
0	nd	0	nd	0	nd	216	1.8	0	nd
NA	NA	NA	nd	NA	NA	NA	NA	NA	NA
NA	NA	NA	nd	NA	NA	36	1.2	0	nd
NA	NA	NA	nd	NA	NA	10	1.1	0	nd
NA	NA	NA	nd	NA	NA	NA	NA	NA	NA
NA	NA	0	nd	0	nd	94	2.6	0	nd
NA	NA	0	nd	0	nd	2	1.2	0.54	0.3
NA	NA	1	nd	1	nd	2	1.7	0	nd
0.0	NA	0.2	NA	0.2	NA	56	1.6	0.4	0.2
0.0	NA	0.0	NA	0.0	NA	2	1.1	0.0	0.1
0.0	NA	1.0	NA	1.0	NA	216	2.6	2.16	0.30

Discharge Flow (cfs)	pH	Winter temp (C)	Summer Temp (C)
1500	7.9	-	24.2
1500	7.9	-	23.8
8800	7.6	-	18.7
8800		-	
2500	7.4	-	20.6
		-	
		-	
750	7.8	-	18.3
1500		-	
3000	7.6	-	18.7
150	7.5	-	17.3
120/pump	7.9	-	23.6
3167	7.7	-	20.7
150	7.4	-	17.3
8800	7.9	-	24.2

Outfall #	Outfall description	Pollutants Detected
21	Navigation Lock Upstream Sump	BOD, TSS, COD, TOC, Ammonia
22	Navigation Lock Downstream Sump	BOD, TSS, oil and grease, COD, TOC, Ammonia

Notes	ID permit effluent category
3 sump pumps, floor drains, and joint leakage; Outfall 021 is the Navigation Lock Upstream Sump. The sump drains the north monolith roof navigation lock floor drains and monolith joint leakage. This discharge is non-seasonal and intermittent with an approximate five (5) minute ON and fifteen minute OFF run cycle. When discharging, it discahrges approimxately 300 gallons per minute (gpm) through a 4" pipe into the Columbia River.	equipment and floor drain water, maintenance related water, maintenance-related water during flood/high water events
2 sump pumps, floor drains, roof drains, joint leakage; intermittent; Outfall 021 is the Navigation Lock Upstream Sump. The sump drains the south monolith roof navigation lock floor drains and monolith joint leakage. This discharge is non-seasonal and intermittent with an approximate five (5) minute ON and fifteen minute OFF run cycle. When discharging, it discahrges approimxately 300 gallons per minute (gpm) through a 4" pipe into the Columbia River.	equipment and floor drain water, maintenance related water, maintenance-related water during flood/high water events

Outfall Description	Maximum Daily Value Flow Rate (kcfs?)	BOD mass (lbs)	BOD conc (mg/L)	BOD mass (lbs)	BOD conc (mg/L)	TSS mass (lbs)	TSS conc (mg/L)	TSS mass (lbs)	TSS conc (mg/L)	Fecal mass (lbs)	Fecal conc (mg/L)
XX	XX	7.6	2.1	2.6	2.1	21.6	6	7.2	6	NA	NA
XX	XX	15.1	4.2	5	4.2	3.6	1	1.2	1	NA	NA
	Average	11.35	3.15	3.8	3.15	12.6	3.5	4.2	3.5	NA	NA
	Minimum	7.6	2.1	2.6	2.1	3.6	1	1.2	1	NA	NA
	Maximum	15.1	4.2	5	4.2	21.6	6	7.2	6	NA	NA

TRC mass (lbs)	TRC conc (mg/L)	Oil and Grease mass (lbs)	Oil and Grease conc (mg/L)	Oil and Grease mass (lbs)	Oil and Grease conc (mg/L)	COD mass (lbs)	COD conc (mg/L)	COD mass (lbs)	COD conc (mg/L)	TOC mass (lbs)	TOC conc (mg/L)	TOC mass (lbs)
0	<0.05	0	<1	0	<1	25.8	7.16	8.6	7.16	6.02	1.67	6.02
0	<0.05	4	1.1	1.3	1.1	0	<5	0	<5	9.94	2.76	3.32
0	<0.05	2	1.1	0.65	1.1	12.9	7.16	4.3	7.16	7.98	2.215	4.67
0	<0.05	0	<1	0	<1	0	<5	0	<5	6.02	1.67	3.32
0	<0.05	4	1.1	1.3	1.1	25.8	7.16	8.6	7.16	9.94	2.76	6.02

TOC conc (mg/L)	Ammonia mass (lbs)	Ammonia conc (mg/L)	Ammonia mass (lbs)	Ammonia conc (mg/L)	Discharge Flow (cfs)	pH	Winter temp (C)	Summer Temp (C)
1.67	0.27	0.0745	0	0.0745	300	7.5-8.5	-	19.1
2.76	0.271	0.074	0	0.074	300		-	20.3
2.215	0.2705	0.07425	0	0.07425	300		-	19.7
1.67	0.27	0.074	0	0.074	300		-	19.1
2.76	0.271	0.0745	0	0.0745	300		-	20.3

Outfall #	Outfall description	BOD mass (lbs)	BOD conc (mg/L)	BOD mass (lbs)	BOD conc (mg/L)	TSS mass (lbs)	TSS conc (mg/L)
1	Navigation lock spump 3: tainter valve #1 Drainage Sump discharge	0	<2	0	<2	102.71	5.7
2	Nav Lock Pump 4: North Fish Pumphouse Unwaterins sump discharge	177.31	9.84	8.53	9.84	153.11	8.5
3	Nav Lock Pump 8: North Non-Overflow Drainage Sump Discharge	0	<2	0	<2	18	3
4	Pump 9 :South fish pumphouse unwatering sump discharge	0	<2	0	<2	180.1	10
5	MU 1 Air Cooler non-contact cooling water	0	<2	0	<2	49	3.4
6	MU1 Thrust bearing non-contact cooling water	0	<2	0	<2	7.1	4.9
7	MU2 Air Cooler non-contact cooling water	NA	NA	NA	NA	NA	NA
8	MU2 Thrust bearing non-contact cooling water	NA	NA	NA	NA	NA	NA
9	MU3 Air Cooler non-contact cooling water	NA	NA	NA	NA	NA	NA
10	MU3 Thrust bearing non-contact cooling water	NA	NA	NA	NA	NA	NA
11	MU4 Non-contact cooling water	NA	NA	NA	NA	NA	NA
12	MU5 Non-contact cooling water	NA	NA	NA	NA	NA	NA
13	MU6 Non-contact cooling water	NA	NA	NA	NA	NA	NA
14	Combined Drainage and unwater sump discharge	0	<2	0	<2	378.3	3
15	HVAC discharge	86.3	6.3	86.3	6.3	205.4	15
16	Transformer Cool 1-1	0	<2	0	<2	6.4	2.8
17	Transformer Cool 1-2	0	<2	0	<2	6.2	2.6
18	Transformer Cool 2-1	NA	NA	NA	NA	NA	NA
19	Transformer Cool 2-2	NA	NA	NA	NA	NA	NA
20	Transformer Cool 3-1	NA	NA	NA	NA	NA	NA
21	Transformer Cool 3-2	NA	NA	NA	NA	NA	NA
	Average	26.361	8.07	9.483	8.07	110.632	5.89
	Minimum	0	6.3	0	6.3	6.2	2.6
	Maximum	177.31	9.84	86.3	9.84	378.3	15

FLOW??

TSS mass (lbs)	TSS conc (mg/L)	Fecal mass (lbs)	Fecal conc (mg/L)	TRC mass (lbs)	TRC conc (mg/L)	TRC mass (lbs)	TRC conc (mg/L)	Oil and Grease mass (lbs)	Oil and Grease conc (mg/L)	Oil and Grease mass (lbs)	Oil and Grease conc (mg/L)
4.9	5.7	NA	NA	0	<0.05	0	<0.05	0	<1	0	<1
7.4	8.5	NA	NA	1.03	0.057	0.05	0.057	0.05	0.057	79.3	4.4
3.5	3	NA	NA	0	<0.05	0	<0.05	0	<1	0	<1
8.7	10	NA	NA	0	<0.05	0	<0.05	0	<1	0	<1
49	3.4	NA	NA	0	<0.05	0	<0.05	0	<1	0	<1
7.1	4.9	NA	NA	0	<0.05	0	<0.05	0	<1	0	<1
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
101.3	3	NA	NA	0	<0.05	0	<0.05	517	4.1	138.5	4.1
205.4	15	NA	NA	0	<0.05	0	<0.05	0	<1	0	<1
6.4	2.8	NA	NA	0	<0.05	0	<0.05	0	<1	0	<1
6.2	2.6	NA	NA	0	<0.05	0	<0.05	0	<1	0	<1
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
39.99	5.89	NA	NA	0.103	0.057	0.005	0.057	51.705	2.0785	21.78	4.25
3.5	2.6	NA	NA	0	0.057	0	0.057	0	0.057	0	4.1
205.4	15	NA	NA	1.03	0.057	0.05	0.057	517	4.1	138.5	4.4

COD mass (lbs)	COD conc (mg/L)	COD mass (lbs)	COD conc (mg/L)	TOC mass (lbs)	TOC conc (mg/L)	TOC mass (lbs)	TOC conc (mg/L)	Ammonia mass (lbs)	Ammonia conc (mg/L)	Ammonia mass (lbs)	Ammonia conc (mg/L)
0	<10	0	<10	30.6	1.7	1.4	1.7	0	<0.03	0	<0.03
3.8	4.4	3.8	4.4	122.51	6.8	22.6	6.8	0	<0.03	0	<0.03
0	<10	0	<10	9	1.5	1.7	1.5	0	<0.03	0	<0.03
0	<10	0	<10	28.8	1.6	1.4	1.6	0	<0.03	0	<0.03
0	<10	0	<10	30.3	2.1	30.3	2.1	0.69	0.048	0.69	0.048
0	<10	0	<10	3	2.1	3	2.1	0.06	0.043	0.06	0.043
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0	<10	0	<10	214.4	1.7	57.4	1.7	0	<0.03	0	<0.03
260.11	19	260.11	19	58.9	4.3	58.9	4.3	0	<0.03	0	<0.03
0	<10	0	<10	5.3	2.2	5.3	2.2	0.08	0.032	0.08	0.032
0	<10	0	<10	5.8	2.4	5.8	2.4	0	<0.03	0	<0.03
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
26.391	11.7	26.391	11.7	50.861	2.64	18.78	2.64	0.083	0.041	0.083	0.041
0	4.4	0	4.4	3	1.5	1.4	1.5	0	0.032	0	0.032
260.11	19	260.11	19	214.4	6.8	58.9	6.8	0.69	0.048	0.69	0.048

Discharge Flow (cfs)	pH	Winter temp (C)	Summer Temp (C)
1500	7.5-8.5	-	22.2
1500	7.0-8.0	-	14.8
500	7.5-8.5	-	19.4
1500	7.5-8.5	-	20.9
1200	7.0 - 8.0	-	24.2
120	7.0-8.0	-	26.1
1200		-	
120		-	
1200		-	
120		-	
1950		-	
1950		-	
1950		-	
10500	7.0 - 8.0	-	17.9
1140	7.0 - 8.0	-	
200	7.5-8.5	-	21.3
200	7.5 - 8.5	-	24.2
200		-	
200		-	
200		-	
200		-	
1316.666667		-	21.22222222
120		-	14.8
10500		-	26.1

Outfall #	Outfall description	BOD mass (lbs)	BOD conc (mg/L)	BOD mass (lbs)	BOD conc (mg/L)	TSS mass (lbs)	TSS conc (mg/L)
1	drainage sump	0	<2	0	<2	67.25	2.8
2	unwatering sump	0	<2	288.21	3.2	161.71	3.2
3	heat pump	42	2.8	42	2.8	1111	74
4	emergency diesel generator cooling discharge	0	<2	0	<2	23.2	4.3
5	generator cooling water unit 1	NA	NA	NA	NA	NA	NA
6	generator cooling water unit 2	NA	NA	NA	NA	NA	NA
7	generator cooling water unit 3	0	<2	0	<2	108.11	6
8	generator cooling water unit 4	0	<2	0	<2	43.2	3
9	generator cooling water unit 5	NA	NA	NA	NA	NA	NA
10	generator cooling water unit 6	NA	NA	NA	NA	NA	NA
11	Transformer tailwater discharge (01)	0	<2	0	<2	1.3	6.2
11b	Transformer tailwater discharge (02)	0	<2	0	<2	1.1	5.1
12	Anesthetizing tanks	0.24	29.6	0.24	29.6	0.04	5.5
13	Holding tanks	0	<2	0	<2	0.02	3.6
	average	4.224	16.2	33.045	11.86666667	151.693	11.37
	minimum	0	2.8	0	2.8	0.02	2.8
	maximum	42	29.6	288.21	29.6	1111	74

TSS mass (lbs)	TSS conc (mg/L)	Fecal mass (lbs)	Fecal conc (mg/L)	TRC mass (lbs)	TRC conc (mg/L)	TRC mass (lbs)	TRC conc (mg/L)	Oil and Grease mass (lbs)	Oil and Grease conc (mg/L)	Oil and Grease mass (lbs)
62.35	2.8	NA	NA	0	<0.05	0	<0.05	0	<1	0
161.71	3.2	NA	NA	0	<0.05	0	<0.05	0	<1	0
1111	74	NA	NA	0	<0.05	0	<0.05	0	<1	0
0.03	4.3	NA	NA	0	<0.05	0	<0.05	7	1.3	0.01
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
108.11	6	NA	NA	0	<0.05	0	<0.05	0	<1	0
43.2	3	NA	NA	0	<0.05	0	<0.05	0	<1	0
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1.3	6.2	NA	NA	0	<0.05	0	<0.05	0	<1	0
1.1	5.1	NA	NA	0.02	0.072	0.02	0.072	0.3	1.2	0.3
0.04	5.5	NA	NA	0	<0.05	0	<0.05	0	<1	0
0.02	3.6	NA	NA	0	<005	0	<0.05	0	<1	0
148.886	11.37	NA	NA	0.002	0.072	0.002	0.072	0.73	1.25	0.031
0.02	2.8	NA	NA	0	0.072	0	0.072	0	1.2	0
1111	74	NA	NA	0.02	0.072	0.02	0.072	7	1.3	0.3

Oil and Grease conc (mg/L)	COD mass (lbs)	COD conc (mg/L)	COD mass (lbs)	COD conc (mg/L)	TOC mass (lbs)	TOC conc (mg/L)	TOC mass (lbs)	TOC conc (mg/L)	Ammonia mass (lbs)	Ammonia conc (mg/L)
<1	202	8.41	187.31	8.41	51.88	2.16	48.1	2.16	0	<0.03
<1	0	<10	0	<10	144.11	1.6	81.9	1.6	0	<0.03
<1	420.31	28	420.31	28	42	2.8	42	2.8	0	<0.03
1.3	0	<10	0	<10	9.7	1.8	0.01	1.8	0.2	0.035
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<1	0	<10	0	<10	43.2	2.4	43.2	2.4	0	<0.03
<1	0	<10	0	<10	37.5	2.6	37.5	2.6	0	<0.03
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<1	0	<10	0	<10	0.4	1.9	0.4	1.9	0	<0.03
1.2	0	<10	0	<10	0.5	2.2	0.5	2.2	0	<0.03
<1	0.49	71	0.49	71	0.16	24	0.16	24	0.00031	0.038
<1	0.2	24	0.2	24	0.03	5.3	0.03	5.3	0.0002	0.031
1.25	62.3	32.8525	60.831	32.8525	32.948	4.676	25.38	4.676	0.020051	0.034666667
1.2	0	8.41	0	8.41	0.03	1.6	0.01	1.6	0	0.031
1.3	420.31	71	420.31	71	144.11	24	81.9	24	0.2	0.038

Ammonia mass (lbs)	Ammonia conc (mg/L)	Discharge Flow (cfs)	pH	Winter temp (C)	Summer Temp (C)
0	<0.03	2000	7.0-8.0	-	20.1
0	<0.03	7500	7.0-8.0	-	16.7
0	<0.03	1250	7.0-8.0	-	20.7
0	0.035	450	8.0-9.0	-	23
NA	NA	1500		-	
NA	NA	1500		-	
0	<0.03	1500	8.0-9.0	-	21.6
0	<0.03	1200	8.0-9.0	-	21.3
NA	NA	1200		-	
NA	NA	1200		-	
0	<0.03	18	7.0-8.0	-	20.3
0	<0.03	18	7.0-8.0	-	18.4
0.0003	0.038	0.57 gpm	7.42	-	19.2
0.0002	0.031	0.52gpm	7.0-8.0	-	17.6
0.00005	0.034666667	1611.333333	7.42	-	19.89
0	0.031	18	7.42	-	16.7
0.0003	0.038	7500	7.42	-	23

Average-high
BOD, TSS, COD, TOC, ammonia, oil and grease, ND for PCBs.

Outfall #	Outfall description	Pollutants Detected
1	drainage sump	TSS, oil and grease, COD, TOC, ammonia
2	unwatering pump	TSS, oil and grease, COD, TOC, ammonia
3	heat pump outfall	TSS, COD, TOC, ammonia
4	emergency diesel generator cooling water	TOC, ammonia
5	Cooling water discharge unit 1	BOD, TSS, Oil and grease, COD, TOC, ammonia
6	Cooling water discharge unit 2	BOD, TSS, Oil and grease, COD, TOC, ammonia

Notes		max BOD mass (lbs)	BOD conc (mg/L)
Includes drainage from various sources but are not limited to: Station Service and Governor air compressor cooling water discharge, deck drains, generator turbine floor and pit liner, powerhouse roof, powerhouse fishwater and fish collection channel, and north shore fishwater supply conduit and fishway tunnel. Runs 18 hours/day. Rcvs drainage from various sources, estimated flow rate 1200 gpm	combined	0	<2
		no meas	no meas
Drains water from several places inc: MU generators intake, discharge, spiral cases, nav lock and fishwater pump and turbine penstock. Unwatering pump is a backup for the drainage pump as well. Unwatering pump discharges 9150 gpm an average of 10 hours/day. Higher discahrges occur when pump is needed to unwater items such as MU generators, nav lock, and fish pump. Nav lock is unwatered in March and MUs are unwatered in August. Any item may require unwatering if a failure occurs.	combined	0	<2
		no meas	no meas
Discharges non-contact cooling water. Cooling water is river water thave comes from either the forebay or discharge cooling water Mus. In winter, the project uses warmer discharge cooling water to create heat and uses cooler forebay water in summer for air conditioning. Outfall discharges when heat pumps are running. Higher discharges occur during warmer and cooler months, Ave flow 600 gpm, operates ave 13 hrs/day.		0	<2
small amounts; rarely in use; weekly half hour tests		0	<2
all cooling water discharges are substantially the same; thrustbearing oil cooler, turbine gland water, and turbine bearing cooler water; intermittent discharges b/c cooling water shut down when MU is shut down.		252.9	10.8
		no meas	no meas
		86.83	3.67

ave daily		max daily		ave daily					
BOD mass (lbs)	BOD conc (mg/L)	TSS mass (lbs)	TSS conc (mg/L)	TSS mass (lbs)	TSS conc (mg/L)	Fecal mass (lbs)	Fecal conc (mg/L)	TRC mass (lbs)	TRC conc (mg/L)
0	<2	28.82	2	21.35	2	NA	NA	0	<0.05
no meas	no meas	no meas	no meas	no meas	no meas	no meas	no meas	no meas	no meas
0	<2	109.9	1	47.12	1	NA	NA	0	<0.05
no meas	no meas	no meas	no meas	no meas	no meas	NA	NA	no meas	no meas
0	<2	7.21	1	3.93	1	NA	NA	0	<0.05
0	<2	0	<2	0	<2	NA	NA	0	<0.05
252.9	10.8	445	19	445	19	NA	NA	0	<0.05
no meas	no meas	no meas	no meas	no meas	no meas	NA	NA	no meas	no meas
86.63	3.67	23.66	1	23.66	1	NA	NA	0	<0.05

		max daily		ave daily		max daily	
TRC mass (lbs)	TRC conc (mg/L)	Oil and Grease mass (lbs)	Oil and Grease conc (mg/L)	Oil and Grease mass (lbs)	Oil and Grease conc (mg/L)	COD mass (lbs)	COD conc (mg/L)
0	<0.05	77.82	5.4	57.65	5.4	89.35	6.2
no meas	no meas	33.15	2.3	24.58	2.3	no measurement	no measurement
0	<0.05	131.9	1.2	56.55	1.2	770.31	7.01
no meas	no meas	0	<1.0	0	<1.0	no measurement	no measurement
0	<0.05	0	<1	0	<1	75.7	10.5
0	<0.05	0	<1	0	<1	0	<5
0	<0.05	39.8	1.7	39.8	1.7	594.8	25.4
no meas	no meas	39.81	1.7	39.81	1.7	no meas	no meas
0	<0.05	0	<1	0	<1	262.6	11.1

ave daily		max daily		ave daily
COD mass (lbs)	COD conc (mg/L)	TOC mass (lbs)	TOC conc (mg/L)	TOC mass (lbs)
66.19	6.2	24.21	1.68	17.93
no measurement	no measurement	no measurement	no measurement	no measurement
330.31	7.01	189.01	1.72	81.05
no measurement	no measurement	no measurement	no measurement	no measurement
41.3	10.5	15.42	75.66	8.42
0	<5	0.07	0.21	0.07
594.8	25.4	142.2	6.07	142.2
no meas	no meas	no meas	no meas	no meas
262.6	11.1	60.57	2.56	60.57

	max daily		ave daily		
TOC conc (mg/L)	Ammonia mass (lbs)	Ammonia conc (mg/L)	Ammonia mass (lbs)	Ammonia conc (mg/L)	Discharge Flow (cfs)
1.68	1.56	0.11	1.15	0.11	1200
no measurement	no measurement	no measurement	no measurement	no measurement	1200
1.72	6.46	0.06	2.77	0.06	9150
no measurement	no measurement	no measurement	no measurement	no measurement	9150
75.66	0.71	0.1	0.39	0.1	600
0.21	0.04	0.11	0.04	0.11	30
6.07	4.52	0.19	4.52	0.19	1950
no meas	no meas	no meas	no meas	no meas	1950
2.56	2.02	0.09	2.02	0.09	1970

pH	Winter temp (C)	Summer Temp (C)
7.0-8.0	-	17.4
	-	
7.0-8.0	-	16.5
no meas	-	no meas
7.0-8.0	-	28.3
7.0-8.0	-	28.2
7.0-8.0	-	23.1
no meas	-	no meas
7.0-8.0	-	22.6

7	Cooling water discharge unit 3	BOD, TSS, Oil and grease, COD, TOC, ammonia
8	Cooling water discharge unit 4	BOD, TSS, Oil and grease, COD, TOC, ammonia
9	Cooling water discharge unit 5	BOD, TSS, Oil and grease, COD, TOC, ammonia
10	Cooling water discharge unit 6	BOD, TSS, Oil and grease, COD, TOC, ammonia
11	North shore diesel generator drain	TSS, Oil and grease, TOC
12	north shore sump pump #2 drain	oil and grease, TOC, ammonia
13	navigation lock fill valve sump	BOD, TSS, TRC, Oil and grease, COD, TOC, ammonia
14	visitors center A.C drain	oil and grease, TOC, ammonia
15	Navigation lock drainage	BOD, TSS, TRC, Oil and grease, COD, TOC, ammonia
16	juvenile fish facility discharge from wet lab	BOD, TSS, TRC, Oil and grease, COD, TOC, ammonia
	average	
	minimum	
	maximum	

no samples taken, but notes in outfalls 5 and 6 indicate that discharge quality of outfalls 5-10 are virtually the same		no meas	no meas
		no meas	no meas
		no meas	no meas
		no meas	no meas
small amounts; rarely in use; monthly running of generator or in emergency situations	may combine 11 and 12 because 11 may feed into 12	0	<2
		no meas	no meas
Receives discharges from all waterstop leaks and aquifer uplift that occurs in drainage galleries. Flow to sump is constant, but can be heavier in winter due to expansion of the dam.	b/c of upwelling, warwe is in cavity; combined - unlcear about cooling water	0	<2
		no meas	no meas
pump is rarely operated; collects water that leaks past seals from fill valve shafts. Intermittent discharge depending on rate of seal leakage. 2" line	this is its own drainage sump; no non-contact cooling water	0.43	17.7
		no meas	no meas
drains potable water from AC unit; flow restricted to summer months; 12 hrs/day during warmest months and incrementally less until unit is shut down in cooler months	non-contact cooling water	0	<2
		no meas	no meas
highest levels of all outfalls; discharges lock water leakage from nav lock, gates, fill drains, and drain s=culverts. 5600 gpm if both submerisble pumps in operation. Under normal conditions, flow is 1500 gpm. 16" line.	couldn't get sample; had to lower sampling unit	284.6	15.8
		no meas	no meas
low but detectable concentrations, MS-222 in discharges, 30" pipe; operates seasonally from ~April -Oct. Fish facility smolt monitoring and transportation lab operates 7 days/wk. In April, fish are sampled every 5th day and MS-222 is discharged. May through October sampling occurs daily. Water is discharged from 180-gallon take once daily, and only during the normal season.		0.03	17.3
		52.06583333	13.054
		0	3.67
		284.6	17.7

FLOW?

no meas	no meas	no meas	no meas	no meas	no meas	no meas	no meas	no meas	no meas
no meas	no meas	no meas	no meas	no meas	no meas	no meas	no meas	no meas	no meas
no meas	no meas	no meas	no meas	no meas	no meas	no meas	no meas	no meas	no meas
no meas	no meas	no meas	no meas	no meas	no meas	no meas	no meas	no meas	no meas
0	<2	0.04	2	0.04	2	NA	NA	0	<0.05
no meas	no meas	no meas	no meas	no meas	no meas	NA	NA	no meas	no meas
0	<2	0	<2	0	<2	NA	NA	0	<0.05
no meas	no meas	no meas	no meas	no meas	no meas	NA	NA	no meas	no meas
0.43	17.7	0.89	37	0.89	37	NA	NA	0.001	0.06
no meas	no meas	no meas	no meas	no meas	no meas	NA	NA	no meas	no meas
0	<2	0	<2	0	<2	NA	NA	0.01	0.09
no meas	no meas	no meas	no meas	no meas	no meas	NA	NA	no meas	no meas
0.57	15.8	108.11	6	0.22	6	NA	NA	1.41	0.08
no meas	no meas	no meas	no meas	no meas	no meas	NA	NA	no meas	no meas
0.03	17.3	0	3	0	3	NA	NA	0	0.07
28.38	13.054	60.3025	8	45.18416667	8	NA	NA	0.118416667	0.075
0	3.67	0	1	0	1	NA	NA	0	0.06
252.9	17.7	445	37	445	37	NA	NA	1.41	0.09

no meas	no meas	no meas	no meas	no meas	no meas	no meas	no meas
no meas	no meas	no meas	no meas	no meas	no meas	no meas	no meas
no meas	no meas	no meas	no meas	no meas	no meas	no meas	no meas
no meas	no meas	no meas	no meas	no meas	no meas	no meas	no meas
0	<0.05	0.02	1.2	0.02	1.2	0	<5
no meas	no meas	0.02	1.2	0.03	1.4	no meas	no meas
0	<0.05	8.07	1.2	2.47	1.2	0	<2
no meas	no meas	8.07	1.2	0	<1	no meas	no meas
0.001	0.06	1.46	60.6	1.46	60.6	2.69	112
no meas	no meas	0.07	3.1	0.07	3.1	no meas	no meas
0.01	0.09	0.17	1.1	0.09	1.1	0	<5
no meas	no meas	0	<1	0	<1	no meas	no meas
0	0.08	291.6	16.2	0.58	16.2	617.9	34.3
no meas	no meas	79.3	4.4	0.16	4.4	no meas	no meas
0	0.07	0	1	0	1	0.09	56.8
0.000916667	0.075	35.563	6.9	11.1635	7.321428571	201.12	32.91375
0	0.06	0	1	0	1	0	6.2
0.01	0.09	291.6	60.6	57.65	60.6	770.31	112

no meas	no meas	no meas	no meas	no meas
no meas	no meas	no meas	no meas	no meas
no meas	no meas	no meas	no meas	no meas
no meas	no meas	no meas	no meas	no meas
0	<5	0.01	0.51	0.01
no meas	no meas	no meas	no meas	no meas
0	<2	9.68	1.44	2.96
no meas	no meas	no meas	no meas	no meas
2.69	112	0.07	2.83	0.07
no meas	no meas	no meas	no meas	no meas
0	<5	0.18	1.13	0.09
no meas	no meas	no meas	no meas	no meas
1.24	34.3	115.3	6.4	0.23
no meas	no meas	no meas	no meas	no meas
0.09	56.8	0.03	19.3	0.03
108.2683333	32.91375	46.39583333	9.959166667	26.13583333
0	6.2	0.01	0.21	0.01
594.8	112	189.01	75.66	142.2

no meas	no meas	no meas	no meas	no meas	1690
no meas	no meas	no meas	no meas	no meas	1690
no meas	no meas	no meas	no meas	no meas	1690
no meas	no meas	no meas	no meas	no meas	1690
0.51	0	0.08	0	0.08	1.6
no meas	no meas	no meas	no meas	no meas	1.6
1.44	0.79	0.12	0.24	0.12	560
no meas	no meas	no meas	no meas	no meas	560
2.83	0.001	0.06	0.001	0.06	2
no meas	no meas	no meas	no meas	no meas	2
1.13	0.01	0.07	0.01	0.07	13
no meas	no meas	no meas	no meas	no meas	13
6.4	1.26	0.07	4.72	0.07	5600
no meas	no meas	no meas	no meas	no meas	13
19.3	0	0.2	0	0.2	0.125
9.959166667	1.447583333	0.105	1.32175	0.105	1696.930208
0.21	0	0.06	0	0.06	0.125
75.66	6.46	0.2	4.72	0.2	9150

no meas	-	no meas
no meas	-	no meas
no meas	-	no meas
no meas	-	no meas
7.0-8.0	-	24.3
no meas	-	no meas
8.0-9.0	-	14.7
no meas	-	no meas
7.0-8.0	-	16.8
no meas	-	no meas
7.0-8.0	-	27.6
no meas	-	no meas
7.0-8.0	-	17.3
no meas	-	no meas
7.0-8.0	-	17.7
#DIV/0!	-	21.20833333
0	-	14.7
0	-	28.3

		max		ave daily	
Outfall #	**Outfall description**	**BOD mass (lbs)**	**BOD conc (mg/L)**	**BOD mass (lbs)**	**BOD conc (mg/L)**
1	drainage sump	0	<2	0	<2
2	unwatering sump	0	<2	0	<2
3	generator cooling water unit 1	NA	NA	NA	NA
3b?	emergency diesel generator cooling	0	<2	0	<2
4	generator cooling water unit 2	141.8	9.84	141.81	9.84
5	generator cooling water unit 3	83	5.76	83	5.76
6	generator cooling water unit 4	NA	NA	NA	NA
7	generator cooling water unit 5	NA	NA	NA	NA
8	generator cooling water unit 6	NA	NA	NA	NA
9	heat pump non-contact cooling water	75.3	5.4	75.3	5.4
10	adult fish trap discharge	3018	22.4	3018	22.4
11	CNO sump discharge (2 pumps with two discharges from one sump)	84.141	5.65	31.55	5.65
12	JFF Conex Lab discharge	NA	NA	NA	NA
13	JFF WET Lab Discharge	16.9	28.1	2.1	28.1
	average	379.9045556	12.85833333	372.4177778	12.85833333
	minimum	0	5.4	0	5.4
	maximum	3018	28.1	3018	28.1

max daily		ave daily							
TSS mass (lbs)	**TSS conc (mg/L)**	**TSS mass (lbs)**	**TSS conc (mg/L)**	**Fecal mass (lbs)**	**Fecal conc (mg/L)**	**TRC mass (lbs)**	**TRC conc (mg/L)**	**TRC mass (lbs)**	**TRC conc (mg/L)**
48	2	18.2	2	NA	NA	0	<0.05	0	<0.05
180.11	2	18.8	2	NA	NA	0	<0.05	0	<0.05
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1.3	2	0.0021	2	NA	NA	0	<0.05	0	<0.05
72.1	5	72.1	5	NA	NA	0	<0.05	0	<0.05
28.82	2	28.82	2	NA	NA	0	<0.05	0	<0.05
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
13.9	1	13.9	1	NA	NA	0	<0.05	0	<0.05
1077	8	1077	8	NA	NA	7.68	0.057	7.68	0.057
104.21	7	39.1	7	NA	NA	0	<0.05	0	<0.05
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0	nd	0	nd	NA	NA	0	<0.05	0	<0.05
169.4933333	3.625	140.8802333	3.625	NA	NA	0.853333333	0.057	0.853333333	0.057
0	1	0	1	NA	NA	0	0.057	0	0.057
1077	8	1077	8	NA	NA	7.68	0.057	7.68	0.057

max daily		ave daily		max daily		ave daily		max daily
Oil and Grease mass (lbs)	**Oil and Grease conc (mg/L)**	**Oil and Grease mass (lbs)**	**Oil and Grease conc (mg/L)**	**COD mass (lbs)**	**COD conc (mg/L)**	**COD mass (lbs)**	**COD conc (mg/L)**	**TOC mass (lbs)**
31.2	1.3	11.8	1.3	142.71	5.94	54.1	5.94	50.7
0	<1	0	<1	0	<5	0	<5	100.01
NA	NA	NA	NA	NA	NA	NA	NA	NA
0	<1	0	<1	4.99	7.55	0.007	7.55	1.14
0	<1	0	<1	292.6	20.3	292.6	20.3	65.6
0	<1	0	<1	206.11	14.3	206.11	14.3	48.131
NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA
0	<1	0	<1	177.11	12.7	177.11	12.7	42.94
0	<1	0	<1	820.61	6.09	820.61	6.09	353
19.4	1.3	7.4	1.3	285.91	19.2	107.21	19.2	65.231
NA	NA	NA	NA	NA	NA	NA	NA	NA
0	<1	0	<1	33.4	55.6	4.2	55.6	11.4
5.622222222	1.3	2.133333333	1.3	218.16	17.71	184.6607778	17.71	82.01688889
0	1.3	0	1.3	0	5.94	0	5.94	1.14
31.2	1.3	11.8	1.3	820.61	55.6	820.61	55.6	353

	ave daily		max daily		ave daily	
TOC conc (mg/L)	**TOC mass (lbs)**	**TOC conc (mg/L)**	**Ammonia mass (lbs)**	**Ammonia conc (mg/L)**	**Ammonia mass (lbs)**	**Ammonia conc (mg/L)**
2.11	19.2	2.11	3.94	0.164	1.49	0.164
1.11	10.4	1.11	5.79	0.064	0.6	0.064
NA	NA	NA	NA	NA	NA	NA
1.72	0.0021	1.72	0.07	0.111	0.00011	0.111
4.55	65.6	4.55	2.44	0.169	2.44	1.69
3.34	48.13	3.34	1.71	0.119	1.71	0.119
NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA
3.08	42.94	3.08	1.39	0.1	1.39	0.1
2.62	353	2.62	30.72	0.228	30.72	0.228
4.38	24.46	4.38	1.94	0.13	0.73	0.13
NA	NA	NA	NA	NA	NA	NA
18.9	1.4	18.9	0.09	0.155	0.01	0.155
4.645555556	62.79245556	4.645555556	5.343333333	0.137777778	4.343345556	0.306777778
1.11	0.0021	1.11	0.07	0.064	0.00011	0.064
18.9	353	18.9	30.72	0.228	30.72	1.69

0.2

Discharge Flow (cfs)	pH	Winter temp (C)	Summer Temp (C)
2000	7.0 - 8.0	-	18.6
7500	7.0-8.0	-	16.6
2200		-	
55	7.0-8.0	-	33.6
1200	7.0-8.0	-	22.6
1200	7.0-8.0	-	23.6
1200		-	
1200		-	
1200		-	
1161	7.0-8.0	-	21.8
11220	7.0-8.0	-	18.8
1240	7.0-8.0	-	18.6
10		-	
50	6.5-7.5	-	16.6
2245.428571		-	21.2
10		-	16.6
11220		-	33.6

Outfall #	Outfall description	BOD mass	BOD conc	TSS mass	TSS conc	Fecal mass
1	Pump/Generating Plant Sump	4.7	0.032	0	<10	0
2	Left Powerhouse Transformer Desk Sump	0	<2.4	0	<10	2
3	Left Powerhouse Sump	0	<2.4	0	<10	6
4a	Left Powerhouse Generator Three (G-3), G-8, Cooling water	0	<2.4	0	<10	1
4b		0	<2.4	0	<10	4
5	Main Dam Galleries	0	<2.4	0	<10	1
6	Right Powerhouse Transformer Deck Sump	0	<2.4	0	<10	4
7	Right Power House Sump	4.6	0.192	0	<10	4
8	Right Power House G-11, G-16 cooling water	0	<2.4	0	<10	3
8b		0	<2.4	0	<10	1
9a	Third Power plant transformer deck sump	0	<2.4	0	<10	3
9b		0	<2.4	0	<10	1
10	Third Power Plant Sump	18	30.832	0	<10	30
11	Third Power Plant G-19, G-24 Cooling water	0	<2.4	0	<10	7
	min	0	0.032	0	<10	0
	max	18	30.832	0	<10	30
	average	1.95	10.352	0	<10	4.785714286

Fecal conc	TRC mass	TRC conc	Oil and Grease mass	Oil and Grease conc	COD mass	COD conc	TOC mass
<1	0.06	<0	0	<4.3	0	20	2.4
0.031	0.03	0.004	0	**<4.1**	0	<20	1.2
0.25	0.06	0.009	0	<4.3	0	<21	1.3
0.033	0.02	0.001	0	**<4.3**	0	<20	1.3
0.133	0.04	0.001	0	**<4.3**	0	<20	3.4
0.343	0.02	0.007	0	**<4.3**	0	<20	2.2
0.558	0.04	0.006	0	**<4.3**	0	<20	1.6
0.167	0.12	0.005	0	**<4.3**	0	<20	4
0.1	0.02	0.001	0	**<4.3**	0	<20	3.5
0.033	0.05	0.002	0	**<4.3**	0	<20	0
0.038	0.01	0	0	**<4.3**	0	<20	3.3
0.013	0	<0.1	0	**<4.3**	0	<20	3.3
51.387	0	<0.1	310	531	87	149.024	5.5
0.081	0.06	0.001	0	**<4.3**	0	<20	0
0.013	0	0	0	531	0	20	0
51.387	0.12	0.009	310	531	87	149.024	5.5
4.089769231	0.037857143	0.003363636	22.14285714	531	6.214285714	84.512	2.357142857

TOC conc	Ammonia mass	Ammonia conc	Discharge Flow	pH	Winter temp	Summer Temp
0.017	0.11	0.001	17.39	7.25	-	17.1
0.018	0.19	0.003	7.81	7.52	-	16.2
0.054	0	<0.1	2.8	7.66	-	15.5
0.043	0.14	0.005	3.6	7.66	-	17.5
0.113	0	<0.1	3.6	7.69	-	17.9
0.754	0	<0.1	0.35	7.43	-	11
0.223	0	<0.1	0.86	7.57	-	16.4
0.167	0	<0.1	2.88	7.73	-	16.6
0.117	0	<0.1	3.6	7.65	-	17.4
<1	0.16	0.005	3.6	7.71	-	15.6
0.04	0	<0.1	9.36	7.64	-	13.4
0.04	0	<0.1	9.36	7.71	-	13.5
9.421	0	<0.1	0.07	6.51	-	13.4
<1	0	<0.1	10.37	7.35	-	17.7
0.017	0	0.001	0.07	6.51	-	11
9.421	0.19	0.005	17.39	7.73	-	17.9
0.91725	0.042857143	0.0035	5.403571429	7.505714286	-	15.65714286

	Temp (C)	pH	BOD (mg/L)	TSS conc (mg/L)	COD (X)	TOC (X)	Ammonia (X)	Oil/Grease (X)	PCB (X)
BONNEVILLE INFLUENT	21.5	8.05	nd	6	nd	1.7	0.2	nd	0.07
DALLES INFLUENT	9	7.83	nd	nd	nd	2.1	nd	nd	NA
JOHN DAY INFLUENT	22.9	7.6	nd	10	nd	1.7	0.12	nd	nd

	Temp (C)	pH	BOD (mg/L)	TSS conc (mg/L)	COD (X)	TOC (X)	Ammonia (X)	Oil/Grease (X)	PCB (X)
LITTLE GOOSE INFLUENT	18.2	8.04	6.2	6	12.7	3.48	0.056	1.8	nd
LOWER GRANITE INFLUENT	24.9	8.42	<2.0	2	8.91	1.85	0.107	nd	nd