

Appendix I
Outfall Sampling Data

Parameter Abbreviation	Description	Unit	Description
Alk	alkalinity	mg/L	milligrams/liter
BOD	biochemical demand	mg/L	milligrams/liter
BOD5	biochemical demand 5-day	mg/L	milligrams/liter
COD	chemical oxygen demand	mg/L	milligrams/liter
Cond	conductivity	uS/cm	microSiemens/centimeter
Cu	copper	mg/L	milligrams/liter
DO	dissolve oxygen	mg/L	milligrams/liter
DO Sat	dissolve oxygen saturation	%	percent saturation
E.Coli	E.Coli bacteria	#/100mL	number/100milliliters
Fecal Coliform	fecal coliform acteria	CFU/mL	Colony Forming Units/milliliter
Fecal Strep	fecal strep bacteria	CFU/mL	Colony Forming Units/milliliter
Fecals	fecal bacteria	#/100mL	number/100milliliters
NH3-N	ammonia-nitrogen	mg/L	milligrams/liter
NO3+NO2	nitrate-nitrite-nitrogen	mg/L	milligrams/liter
O-PO4	ortho-phosphate	mg/L	milligrams/liter
Pb	lead	mg/L	milligrams/liter
pH	pH	range of 0-14	measure acid-base balance
TDS	total dissolved solids	mg/L	milligrams/liter
Temp	Temperature	°C	degrees Celsius
TKN	total nitrogen content/ total Kjeldahl nitrogen	mg/L	milligrams/liter
T-PO4	total phosphorus	mg/L	milligrams/liter
TS	total sulphur	mg/L	milligrams/liter
TSS	total suspended solids	mg/L	milligrams/liter
Turb	turbidity	NTU	Nephelometric Turbidity Units
Zn	Zinc	mg/L	milligrams/liter

Notes

Blanks indicate that sampling was attempted but conditions at sites prevented sample collection (e.g., streams were dry or flood conditions make site dangerous).

Stormwater Outfall Sampling Data

City of Salem

Redleaf

Location	Date	Oil & Grease	E. Coli	Fecal Coliform (CFU/mL)	Fecal Strep (CFU/mL)	pH	Temp (°C)	BOD5 (mg/L)	COD (mg/L)	TS (mg/L)	TKN (mg/L)	NO3+NO2 (mg/L)	TDS (mg/L)	TSS (mg/L)	T-PO4 (mg/L)	O-PO4 (mg/L)	Cu (mg/L)	Pb (mg/L)	Zn (mg/L)
Redleaf	10/6/2004	0	1040	1000	6400	6.38		12.8	46	74	1.33	0.3	49	25.2	0.145	0.056	0	0.0015	0.624
Redleaf	11/15/2004	0	10460	1000	37000	6.31	12.00	8	39	114	1.13		38	76	0.246	0.043	0.021	0.0022	0.043
Redleaf	1/7/2005	0	2			6.15	13.00	0	0	42	1.05	1.89	38	4	0.022	0.007	0	0	0

Count	3	3	2	2	3	2	3	3	3	3	3	2	3	3	3	3	3	3	3
Average	0	3834	1000	21700	6.3	12.5	6.9	28	77	1.2	1.10	42	35	0.138	0.035	0.01	0.001	0.22	
Min	0	2	1000	6400	6.2	12.0	0.0	0	42	1.1	0.30	38	4	0.022	0.007	0.00	0.000	0.00	
Max	0	10460	1000	37000	6.4	13.0	12.8	46	114	1.3	1.89	49	76	0.246	0.056	0.02	0.002	0.62	
Median	0	1040	1000	21700	6.3	12.5	8.0	39	74	1.1	1.10	38	25	0.145	0.043	0.00	0.002	0.04	
StDev	0	5762	0	21637	0.1	0.7	6.5	25	36	0.1	1.12	6	37	0.112	0.025	0.01	0.001	0.35	
25th	0	521	1000	14050	6.2	12.3	4.0	20	58	1.1	0.70	38	15	0.084	0.025	0.00	0.001	0.02	
75th	0	5750	1000	29350	6.3	12.8	10.4	43	94	1.2	1.49	44	51	0.196	0.050	0.01	0.002	0.33	

Stormwater Outfall Sampling Data

City of Salem

Edgewater

Location	Date	Oil & Grease	E. Coli	Fecal Coliform (CFU/mL)	Fecal Strep (CFU/mL)	pH	Temp (°C)	BOD5 (mg/L)	COD (mg/L)	TS (mg/L)	TKN (mg/L)	NO3+NO2 (mg/L)	TDS (mg/L)	TSS (mg/L)	T-PO4 (mg/L)	O-PO4 (mg/L)	Cu (mg/L)	Pb (mg/L)	Zn (mg/L)
Edgewater	10/6/2004	0	24190	179000	31000	6.78		18.5	83	170	2.5	0.51	86	83.6	0.476	0.213	0.019	0.135	0.159
Edgewater	11/15/2004	0	10	360	49000	6.13	12.90	7.9	28	94	1.22		58.4	35.6	0.22	0.099	0	0.0121	0.061
Edgewater	1/7/2005	8	64			6.7	11.60	4.8	31	113	0.75	0.14	34	79	0.277	0.036	0.016	0.013	0.07
Count		3	3	2	2	3	2	3	3	3	3	2	3	3	3	3	3	3	3
Average		3	8088	89680	40000	6.5	12.3	10.4	47	126	1.5	0.33	59	66	0.324	0.116	0.01	0.053	0.10
Min		0	10	360	31000	6.1	11.6	4.8	28	94	0.8	0.14	34	36	0.220	0.036	0.00	0.012	0.06
Max		8	24190	179000	49000	6.8	12.9	18.5	83	170	2.5	0.51	86	84	0.476	0.213	0.02	0.135	0.16
Median		0	64	89680	40000	6.7	12.3	7.9	31	113	1.2	0.33	58	79	0.277	0.099	0.02	0.013	0.07
StDev		5	13945	126318	12728	0.4	0.9	7.2	31	40	0.9	0.26	26	26	0.134	0.090	0.01	0.071	0.05
25th		0	37	45020	35500	6.4	11.9	6.4	30	104	1.0	0.23	46	57	0.249	0.068	0.01	0.013	0.07
75th		4	12127	134340	44500	6.7	12.6	13.2	57	142	1.9	0.42	72	81	0.377	0.156	0.02	0.074	0.11

Stormwater Outfall Sampling Data

City of Salem

Commercial

Location	Date	Oil & Grease	E. Coli	Fecal Coliform (CFU/mL)	Fecal Strep (CFU/mL)	pH	Temp (°C)	BOD5 (mg/L)	COD (mg/L)	TS (mg/L)	TKN (mg/L)	NO3+NO2 (mg/L)	TDS (mg/L)	TSS (mg/L)	T-PO4 (mg/L)	O-PO4 (mg/L)	Cu (mg/L)	Pb (mg/L)	Zn (mg/L)
Commercial	10/6/2004	0	24190	23000	51000	6.36		26.9	40	132	1.7	0.41	76	56.4	0.281	0.112	0	0.004	0.244
Commercial	11/15/2004	0	1330	860	9818	6.46	13.00	13.1	52	121	1.24		58.2	62.8	0.287	0.09	0.016	0.0063	0.069
Commercial	1/7/2005	5	60			5.61	12.00	4.6	48	114	2.12	0.42	34	80	0.269	0.014	0.025	0.0049	0.063

Count	3	3	2	2	3	2	3	3	3	3	3	2	3	3	3	3	3	3	3
Average	2	8527	11930	30409	6.1	12.5	14.9	47	122	1.7	0.42	56	66	0.279	0.072	0.01	0.005	0.13	
Min	0	60	860	9818	5.6	12.0	4.6	40	114	1.2	0.41	34	56	0.269	0.014	0.00	0.004	0.06	
Max	5	24190	23000	51000	6.5	13.0	26.9	52	132	2.1	0.42	76	80	0.287	0.112	0.03	0.006	0.24	
Median	0	1330	11930	30409	6.4	12.5	13.1	48	121	1.7	0.42	58	63	0.281	0.090	0.02	0.005	0.07	
StDev	3	13580	15655	29120	0.5	0.7	11.3	6	9	0.4	0.01	21	12	0.009	0.051	0.01	0.001	0.10	
25th	0	695	6395	20114	6.0	12.3	8.9	44	118	1.5	0.41	46	60	0.275	0.052	0.01	0.004	0.07	
75th	3	12760	17465	40705	6.4	12.8	20.0	50	127	1.9	0.42	67	71	0.284	0.101	0.02	0.006	0.16	

Stormwater Outfall Sampling Data

City of Salem

Cottage

Location	Date	Oil & Grease	E. Coli	Fecal Coliform (CFU/mL)	Fecal Strep (CFU/mL)	pH	Temp (°C)	BOD5 (mg/L)	COD (mg/L)	TS (mg/L)	TKN (mg/L)	NO3+N O2 (mg/L)	TDS (mg/L)	TSS (mg/L)	T-PO4 (mg/L)	O-PO4 (mg/L)	Cu (mg/L)	Pb (mg/L)	Zn (mg/L)	
Cottage	10/6/2004	0	350	320	4500	6.26	18.40	0	10	93	0.2	0.15	75	18	0.289	0.09	0.026	0.0049	0.119	
Cottage	11/15/2004	0	10	20	20	6.63	15.90	0	4	66	0.51		62.8	3.2	0.071	0.064	0.019	0.0014	0.067	
Cottage	1/7/2005	22	15			6.92	12.40	0	12	63	1.34	0.81	61	2	0.061	0.017	0	0.0008	0.015	
Count		3	3	2	2	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3
Average		7	125	170	2260	6.6	15.6	0.0	9	74	0.7	0.48	66	8	0.140	0.057	0.02	0.002	0.07	
Min		0	10	20	20	6.3	12.4	0.0	4	63	0.2	0.15	61	2	0.061	0.017	0.00	0.001	0.02	
Max		22	350	320	4500	6.9	18.4	0.0	12	93	1.3	0.81	75	18	0.289	0.090	0.03	0.005	0.12	
Median		0	15	170	2260	6.6	15.9	0.0	10	66	0.5	0.48	63	3	0.071	0.064	0.02	0.001	0.07	
StDev		13	195	212	3168	0.3	3.0	0.0	4	17	0.6	0.47	8	9	0.129	0.037	0.01	0.002	0.05	
25th		0	13	95	1140	6.4	14.2	0.0	7	65	0.4	0.32	62	3	0.066	0.041	0.01	0.001	0.04	
75th		11	183	245	3380	6.8	17.2	0.0	11	80	0.9	0.65	69	11	0.180	0.077	0.02	0.003	0.09	