

**Appendix D.** Results of analyses for wastewater indicators in samples collected at three Lake Erie beaches and one inland lake during distribution, source, and spatial studies, 2000

[ft, feet; µg/L, micrograms per liter; col/100mL, colonies per 100 millimeters; K, results based on colony count outside the ideal range of 20-80 colonies per plate; A, average of two or more values; E, values below the detection limit are estimated because of the uncertainty associated with the result; <, value is less than concentration indicated; "Spike" is primary sewage collected at Westerly Wastewater Treatment Plant, Cleveland, Ohio, mixed with lake water]

Sample number	Site name	Location or beach area sampled	Type of sample	Depth (ft)	Date	<i>Escherichia coli</i> (col/100 mL)	1,4-Dichloro-benzene (µg/L)	2,6-Di- <i>t</i> -butylphenol (µg/L)
E1	Edgewater	Area 2	Bathing	3	6/19/00	470	0.059	< 0.090
E2	Edgewater	Area 3	Bathing	4	8/8/00	130	< 0.030	< 0.080
E3	Edgewater	Area 2	Offshore	9.5	8/28/00	K 2	< 0.030	< 0.080
H1	Huntington	Area 2	Bathing	5	6/19/00	A 500	< 0.030	E 0.006
M1	Mosquito	Area 2	Bathing	6	6/6/00	130	< 0.030	< 0.090
M2	Mosquito	Area 2	Offshore	8	6/6/00	200	< 0.030	< 0.090
M3	Mosquito	North Lakeshore	Offshore	8	6/6/00	K,A 4	< 0.030	< 0.090
M4	Mosquito	South Lakeshore	Offshore	10	6/6/00	< 1	< 0.030	< 0.090
M5	Mosquito	Area 1	Bathing	3	7/31/00	210	< 0.030	< 0.080
M6	Mosquito	South Lakeshore	Nearshore	3	7/31/00	K 14	< 0.030	< 0.080
M7	Mosquito	Area 3	Bathing	3	8/30/00	240	< 0.030	< 0.080
M8	Mosquito	North Lakeshore	Nearshore	2	8/30/00	440	< 0.030	< 0.080
V1	Villa Angela	Area 3	Bathing	5	6/19/00	80	E 0.010	< 0.090
W1	Westerly	Spike			8/7/00	20,000	< 0.030	< 0.080
W2	Westerly	Spike			8/17/00		< 0.030	< 0.080

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Sample number	2,6-Di- <i>t-p</i> -benzoquinone (µg/L)	3β-coprostanol (µg/L)	5-Methyl-1H-benzotriazole (µg/L)	17β-estradiol (µg/L)	Acetophenone (µg/L)	Anthracene (µg/L)	Benzo[ <i>a</i> ] pyrene (µg/L)	BHA (µg/L)	BHT (µg/L)	Bis(2-ethylhexyl) adipate (µg/L)
E1	< 0.070	E 0.268	< 0.100	< 0.500	< 0.100	< 0.050	< 0.050	< 0.120	< 0.080	< 1.500
E2	< 0.500	< 0.600	< 0.100	< 0.500	< 0.220	< 0.060	< 0.050	< 0.120	< 0.080	< 2.000
E3	< 0.500	< 0.600	< 0.100	< 0.500	< 0.150	< 0.050	< 0.050	< 0.120	< 0.080	E 3.78
H1	< 0.070	< 0.600	< 0.100	< 0.500	< 0.100	< 0.050	< 0.050	< 0.120	< 0.080	< 1.500
M1	< 0.070	< 0.600	< 0.100	< 0.500	< 0.100	< 0.050	< 0.050	< 0.120	< 0.080	< 1.500
M2	< 0.070	< 0.600	< 0.100	< 0.500	< 0.100	< 0.050	< 0.050	< 0.120	< 0.080	< 1.500
M3	< 0.070	< 0.600	< 0.100	< 0.500	< 0.100	< 0.050	< 0.050	< 0.120	< 0.080	< 1.500
M4	< 0.070	< 0.600	< 0.100	< 0.500	< 0.100	< 0.050	< 0.050	< 0.120	< 0.080	< 1.500
M5	< 0.500	< 0.600	< 0.100	< 0.500	< 0.220	< 0.060	< 0.050	< 0.120	< 0.080	< 2.000
M6	< 0.500	< 0.600	< 0.100	< 0.500	< 0.220	< 0.060	< 0.050	< 0.120	< 0.080	< 2.000
M7	< 0.500	< 0.600	< 0.100	< 0.500	< 0.150	< 0.050	< 0.050	< 0.120	< 0.080	E 2.94
M8	< 0.500	< 0.600	< 0.100	< 0.500	< 0.150	< 0.050	< 0.050	< 0.120	< 0.080	E 3.08
V1	< 0.070	< 0.600	< 0.100	< 0.500	< 0.100	< 0.050	< 0.050	< 0.120	< 0.080	< 1.500
W1	< 0.500	E 0.772	< 0.100	< 0.500	< 0.220	< 0.060	0.169	< 0.120	< 0.080	< 2.000
W2	< 0.500	E 3.50	0.270	< 0.500	< 0.150	< 0.050	< 0.050	< 0.120	< 0.080	E 4.46

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Sample number	Bis(2-ethylhexyl) phthalate (µg/L)	Bisphenol A (µg/L)	Caffeine (µg/L)	Carbaryl (µg/L)	Chlorpyrifos (µg/L)	Cholesterol (µg/L)	Cis-Chlordane (µg/L)	Codeine (µg/L)	Cotinine (µg/L)	Diazinon (µg/L)
E1	< 2.000	E 0.083	0.199	< 0.060	E 0.008	E 1.09	< 0.040	E 0.082	E 0.028	0.088
E2	E 4.38	< 0.090	0.106	< 0.060	< 0.020	< 1.50	< 0.040	< 0.200	< 0.040	< 0.030
E3	< 2.500	E 0.060	0.084	< 0.060	< 0.020	E 2.08	< 0.040	< 0.100	E 0.026	< 0.030
H1	< 2.000	< 0.090	0.107	< 0.060	< 0.020	E 0.820	< 0.040	< 0.100	< 0.040	0.046
M1	< 2.000	< 0.090	< 0.080	< 0.060	< 0.020	E 1.28	< 0.040	< 0.100	< 0.040	< 0.030
M2	< 2.000	< 0.090	E 0.029	< 0.060	< 0.020	E 1.80	< 0.040	< 0.100	< 0.040	< 0.030
M3	< 2.000	< 0.090	< 0.080	< 0.060	< 0.020	E 1.32	< 0.040	< 0.100	< 0.040	< 0.030
M4	< 2.000	E 0.049	< 0.080	< 0.060	< 0.020	E 1.35	< 0.040	< 0.100	< 0.040	< 0.030
M5	< 2.500	< 0.090	< 0.080	< 0.060	< 0.020	E 1.22	< 0.040	< 0.200	E 0.033	< 0.030
M6	< 2.500	< 0.090	E 0.042	< 0.060	< 0.020	E 1.37	< 0.040	< 0.200	E 0.036	< 0.030
M7	< 2.500	E 0.062	< 0.080	< 0.060	< 0.020	E 1.96	< 0.040	< 0.100	0.063	< 0.030
M8	E 2.74	E 0.127	0.748	< 0.060	< 0.020	E 3.34	< 0.040	0.581	0.251	< 0.030
V1	< 2.000	E 0.056	0.087	< 0.060	< 0.020	E 0.641	< 0.040	< 0.100	< 0.040	E 0.030
W1	< 2.500	< 0.090	0.282	< 0.060	< 0.020	E 1.32	< 0.040	< 0.200	E 0.008	< 0.030
W2	< 2.500	E 0.253	2.26	< 0.060	< 0.020	E 6.18	< 0.040	< 0.100	0.165	< 0.030

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Sample number	Dieldrin (µg/L)	Diethylphthalate (µg/L)	Ethanol, 2-butoxy-, phosphate (µg/L)	Fluoranthene (µg/L)	Lindane (µg/L)	Methyl parathion (µg/L)	Naphthalene (µg/L)	N,N-Diethyltoluamide (µg/L)	NPEO1-total (µg/L)
E1	< 0.080	< 0.250	0.352	0.041	< 0.050	< 0.060	< 0.030	0.066	E 0.458
E2	< 0.080	< 0.250	< 0.200	< 0.030	< 0.050	< 0.060	< 0.020	E 0.018	< 1.000
E3	< 0.080	E 2.32	< 0.200	E 0.016	< 0.050	< 0.060	E 0.051	0.091	E 1.94
H1	< 0.080	< 0.250	0.112	0.033	< 0.050	< 0.060	< 0.030	E 0.025	< 1.000
M1	< 0.080	< 0.250	< 0.070	< 0.030	< 0.050	< 0.060	< 0.030	E 0.022	< 1.000
M2	< 0.080	< 0.250	< 0.070	< 0.030	< 0.050	< 0.060	< 0.030	E 0.020	< 1.000
M3	< 0.080	< 0.250	< 0.070	< 0.030	< 0.050	< 0.060	< 0.030	< 0.040	< 1.000
M4	< 0.080	< 0.250	< 0.070	< 0.030	< 0.050	< 0.060	< 0.030	< 0.040	< 1.000
M5	< 0.080	< 0.250	< 0.200	< 0.030	< 0.050	< 0.060	< 0.020	0.055	E 1.34
M6	< 0.080	< 0.250	< 0.200	< 0.030	< 0.050	< 0.060	< 0.020	0.070	E 1.37
M7	< 0.080	E 1.58	< 0.200	E 0.017	< 0.050	< 0.060	E 0.018	0.095	< 1.000
M8	< 0.080	E 1.50	0.906	E 0.021	< 0.050	< 0.060	E 0.021	0.870	E 2.12
V1	< 0.080	< 0.250	0.120	E 0.025	< 0.050	< 0.060	0.063	E 0.026	< 1.000
W1	< 0.080	< 0.250	E 0.126	0.039	< 0.050	< 0.060	< 0.020	E 0.026	E 1.88
W2	< 0.080	E 2.51	1.07	E 0.037	< 0.050	< 0.060	E 0.035	0.191	E 4.04

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Sample number	NPEO2-total (µg/L)	OPEO1 (µg/L)	OPEO2 (µg/L)	Para-cresol (µg/L)	Para-nonylphenol-total (µg/L)	Phenanthrene (µg/L)	Phenol (µg/L)	Phthalic anhydride (µg/L)	Pyrene (µg/L)	Stigmastanol (µg/L)
E1	< 1.100	E 0.044	E 0.053	< 0.030	< 0.500	< 0.060	< 0.080	< 0.150	0.040	< 2.000
E2	< 1.100	< 0.100	< 0.200	< 0.060	< 0.500	< 0.050	E 0.387	< 0.290	< 0.030	< 2.000
E3	< 1.100	E 0.084	< 0.200	E 0.050	E 1.46	< 0.060	E 1.97	E 0.313	E 0.013	< 2.000
H1	< 1.100	< 0.100	< 0.200	< 0.030	< 0.500	< 0.060	< 0.080	< 0.150	E 0.023	< 2.000
M1	< 1.100	< 0.100	< 0.200	< 0.030	< 0.500	< 0.060	< 0.080	< 0.150	< 0.030	< 2.000
M2	< 1.100	< 0.100	< 0.200	0.070	E 1.58	< 0.060	22.0	E 0.209	< 0.030	< 2.000
M3	< 1.100	< 0.100	< 0.200	< 0.030	< 0.500	< 0.060	0.270	< 0.150	< 0.030	< 2.000
M4	< 1.100	< 0.100	< 0.200	< 0.030	< 0.500	< 0.060	< 0.080	< 0.150	< 0.030	< 2.000
M5	< 1.100	E 0.144	< 0.200	< 0.060	< 0.500	< 0.050	< 0.250	< 0.290	< 0.030	< 2.000
M6	< 1.100	E 0.150	< 0.200	< 0.060	< 0.500	< 0.050	E 0.476	< 0.290	< 0.030	< 2.000
M7	< 1.100	E 0.094	< 0.200	E 0.050	< 0.500	< 0.060	E 1.61	E 0.335	E 0.020	< 2.000
M8	< 1.100	E 0.115	< 0.200	< 0.040	E 2.07	< 0.060	E 0.323	E 0.506	E 0.020	< 2.000
V1	< 1.100	E 0.070	E 0.070	< 0.030	< 0.500	< 0.060	< 0.080	< 0.150	E 0.016	< 2.000
W1	< 1.100	< 0.100	< 0.200	< 0.060	E 3.10	< 0.050	E 0.204	< 0.290	0.226	< 2.000
W2	< 1.100	E 0.334	< 0.200	E 0.066	E 3.69	< 0.060	E 0.545	E 0.597	E 0.040	< 2.000

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Sample number	Tetrachloro-ethylene (µg/L)	Tri(2-chloroethyl) phosphate (µg/L)	Triclosan (µg/L)	Tri(dichloroiso propyl) phosphate (µg/L)	Triphenyl phosphate (µg/L)
E1	0.051	E 0.035	0.249	< 0.100	E 0.079
E2	< 0.030	< 0.040	< 0.050	< 0.100	< 0.100
E3	< 0.030	0.110	0.140	0.139	< 0.100
H1	0.032	< 0.040	0.042	< 0.100	E 0.008
M1	< 0.030	< 0.040	< 0.040	< 0.100	< 0.100
M2	< 0.030	< 0.040	0.041	< 0.100	< 0.100
M3	< 0.030	< 0.040	< 0.040	< 0.100	< 0.100
M4	< 0.030	< 0.040	< 0.040	< 0.100	< 0.100
M5	< 0.030	< 0.040	0.124	< 0.100	< 0.100
M6	< 0.030	< 0.040	0.124	< 0.100	< 0.100
M7	< 0.030	0.104	< 0.040	< 0.100	< 0.100
M8	< 0.030	0.133	0.241	0.241	< 0.100
V1	E 0.019	< 0.040	0.151	< 0.100	E 0.012
W1	< 0.030	E 0.034	E 0.022	< 0.100	< 0.100
W2	< 0.030	0.140	0.503	0.503	< 0.100