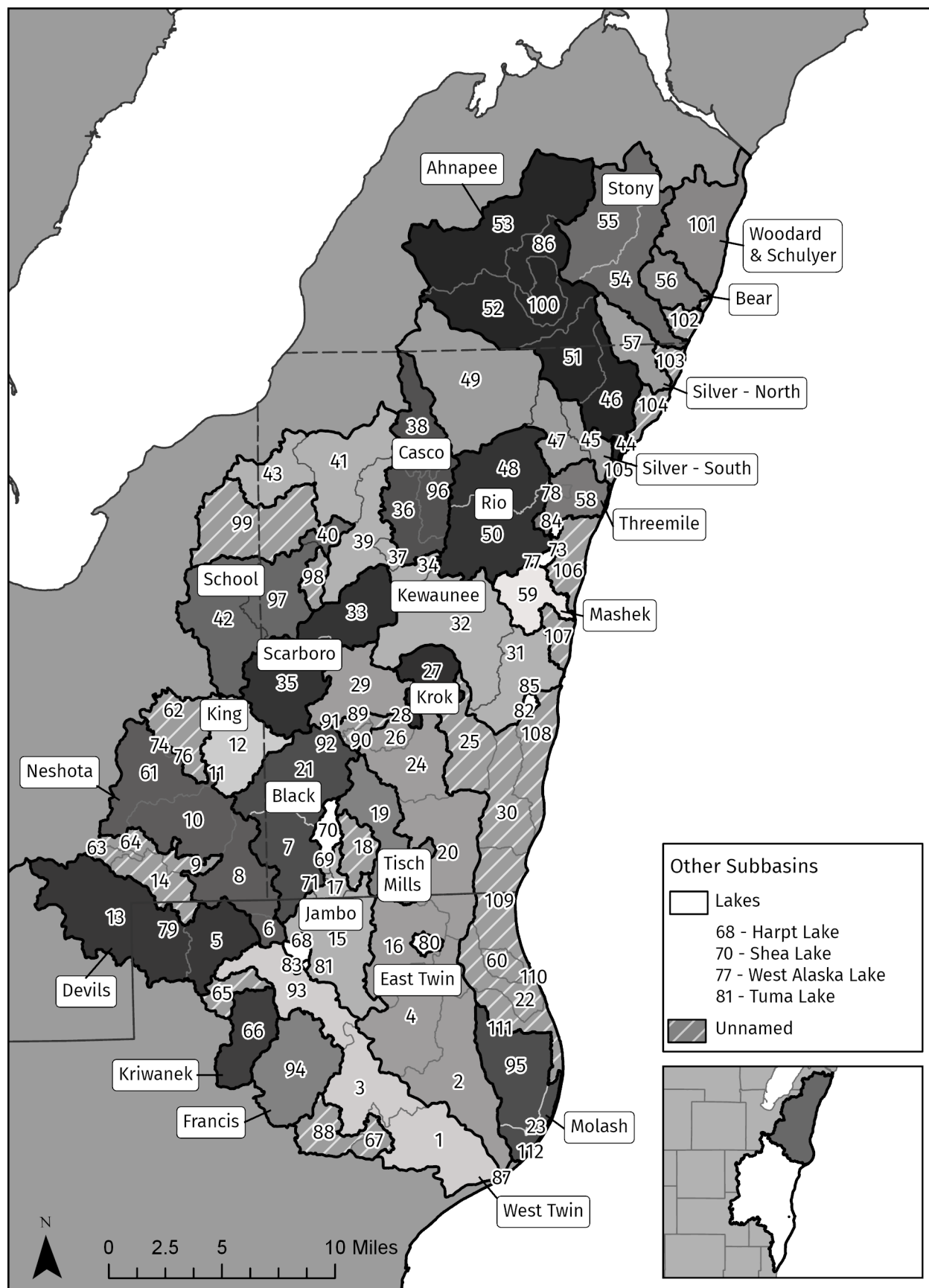


Appendix X: Northeast Lakeshore TMDL Allocation Tables
Total Phosphorus

DRAFT

Door/Kewaunee Region

DRAFT



Total Phosphorus Annual Allocations

Table X.K.1. Annual total phosphorus load allocations by TMDL reach. Some columns names have been abbreviated to fit: Load cap. = loading capacity, Res. cap. = reserve capacity, Alloc. = load allocation, BG = background load, Agric. = agriculture allocation, NPU = non-permitted urban allocation, Wasteload = total wasteload allocation (general permits, MS4s, individual permits), GP = general permits, Ind. perm. = individual permits.

Rch	Load cap. (lbs/year)	Res. cap. (lbs/year)	Alloc. (lbs/year)	BG (lbs/year)	Agric. (lbs/year)	NPU (lbs/year)	Wasteload (lbs/year)	GP (lbs/year)	MS4 (lbs/year)	Ind. perm. (lbs/year)
1	3,438	56	1,057	230	985	24	59	11	47	0
2	3,392	159	2,983	219	2,921	22	72	32	40	0
3	2,595	116	2,186	269	2,169	18	23	23	0	0
4	2,799	122	2,296	357	2,268	28	24	24	0	0
5	1,354	52	975	317	968	7	10	10	0	0
6	271	12	218	40	216	2.1	2.3	2.3	0	0
7	1,750	82	1,539	113	1,532	7.1	16	16	0	0
8	1,845	77	1,441	312	1,426	15	15	15	0	0.13
9	611	29	537	39	90	11	442	5.7	0	436
10	2,095	90	1,692	296	1,680	12	18	18	0	0
11	69	2.7	51	14	51	0.16	0.54	0.54	0	0
12	1,928	81	1,516	315	1,512	4.1	16	16	0	0
13	4,231	194	3,650	348	3,641	9.2	39	39	0	0
14	1,101	48	909	134	903	5.7	9.7	9.7	0	0
15	3,275	148	2,732	366	2,725	7	30	30	0	0
16	2,427	44	831	169	825	6	8.8	8.8	0	0
17	386	18	343	21	341	1.7	3.7	3.7	0	0
18	860	40	759	53	758	0.52	8.1	8.1	0	0
19	2,531	119	2,233	155	2,226	7.2	24	24	0	0
20	2,975	133	2,508	307	2,501	6.8	27	27	0	0
21	2,728	120	2,262	321	2,260	2	24	24	0	0
22	312	12	218	81	217	0.61	2.3	2.3	0	0
23	239	3.9	73	66	61	4.5	7.7	0.77	6.9	0
24	2,010	42	799	76	795	3.4	8.5	8.5	0	0
25	1,492	69	1,305	104	1,303	2.3	14	14	0	0
26	510	25	467	14	467	0.37	5	5	0	0
27	1,163	49	930	46	927	2.4	9.9	9.9	0	0
28	119	3.8	71	6.8	70	0.32	0.75	0.75	0	0

(continued)

Rch	Load cap. (lbs/year)	Res. cap. (lbs/year)	Alloc. (lbs/year)	BG (lbs/year)	Agric. (lbs/year)	NPU (lbs/year)	Wasteload (lbs/year)	GP (lbs/year)	MS4 (lbs/year)	Ind. perm. (lbs/year)
29	2,025	92	1,731	183	1,728	3.5	18	18	0	0
30	460	20	377	59	376	1	4	4	0	0
31	2,189	102	1,924	142	797	32	1,116	20	0	1,095
32	4,529	201	3,772	516	3,757	15	40	40	0	0
33	2,487	116	2,181	166	2,177	4.2	23	23	0	0
34	10,889	8.5	161	21	157	3.9	1.7	1.7	0	0
35	3,457	155	2,909	362	2,905	3.8	31	31	0	0
36	1,593	69	1,288	69	1,275	13	14	14	0	0
37	104	4.4	83	16	80	2.6	0.88	0.88	0	0
38	2,142	91	1,718	96	1,712	5.2	18	18	0	0
39	982	42	794	137	783	11	8.4	8.4	0	0
40	198	8	151	37	149	2.5	1.6	1.6	0	0
41	1,402	60	1,124	206	1,119	5.2	12	12	0	0
42	1,912	85	1,606	203	1,595	10	17	17	0	0
43	773	33	620	113	613	7.4	6.6	6.6	0	0
44	3,852	164	3,079	0.33	0.09	31	3,081	33	0	3,048
45	291	9.5	179	32	149	30	1.9	1.9	0	0
46	1,131	19	366	75	352	14	3.9	3.9	0	0
47	455	19	366	66	355	11	3.9	3.9	0	0
48	992	45	839	99	832	7.2	8.9	8.9	0	0
49	2,219	101	1,908	189	1,896	12	20	20	0	0
50	1,397	63	1,186	135	1,181	4.7	13	13	0	0
51	1,275	26	484	59	473	11	5.1	5.1	0	0
52	2,046	74	1,387	127	1,013	10	379	15	0	364
53	3,728	171	3,211	291	3,167	44	34	34	0	0
54	690	29	547	109	541	5.3	5.8	5.8	0	0
55	833	32	599	160	588	11	6.4	6.4	0	0
56	303	12	221	67	219	2.2	2.4	2.4	0	0
57	332	14	258	51	256	1.8	2.7	2.7	0	0
58	523	19	361	139	351	9.9	3.8	3.8	0	0
59	581	25	472	79	470	2.7	5	5	0	0
60	121	4.4	82	34	81	1.1	0.87	0.87	0	0

(continued)

Rch	Load cap. (lbs/year)	Res. cap. (lbs/year)	Alloc. (lbs/year)	BG (lbs/year)	Agric. (lbs/year)	NPU (lbs/year)	Wasteload (lbs/year)	GP (lbs/year)	MS4 (lbs/year)	Ind. perm. (lbs/year)
61	2,204	90	1,687	409	1,678	8.8	18	18	0	0
62	1,404	56	1,050	287	1,040	10	11	11	0	0
63	280	14	258	6	48	0.46	211	2.7	0	209
64	380	17	328	31	326	1.9	3.5	3.5	0	0
65	810	38	709	56	633	4.6	79	7.5	0	71
66	1,966	91	1,713	144	1,702	11	18	18	0	0
67	533	23	428	78	419	8.7	4.6	4.6	0	0
68	93	3.5	65	24	65	0	0.69	0.69	0	0
69	398	1.7	31	5.4	31	0.17	0.34	0.34	0	0
70	76	3	56	16	55	0.55	0.59	0.59	0	0
71	27	1.2	23	3	22	0.11	0.24	0.24	0	0
72	21	0.96	18	1.8	18	0.14	0.19	0.19	0	0
73	64	0.42	8	4.8	6.1	1.8	0.08	0.08	0	0
74	39	0.05	0.91	8.2	0	0.91	0.01	0.01	0	0
75	62	0	0	1.2	0	0	0	0	0	0
76	26	0.41	7.8	5.7	7.7	0.06	0.08	0.08	0	0
77	40	1.4	27	12	24	2.2	0.28	0.28	0	0
78	53	2.2	41	8.7	41	0.51	0.44	0.44	0	0
79	14	0.05	1	3.7	0	1	0.01	0.01	0	0
80	232	4	75	20	75	0.24	0.8	0.8	0	0
81	6.4	0.1	1.8	4.4	1.8	0	0.02	0.02	0	0
82	25	1.2	22	1.4	21	1.1	0.23	0.23	0	0
83	36	1	19	1	19	0	0.2	0.2	0	0
84	30	1.3	24	4.2	24	0.18	0.26	0.26	0	0
85	6.1	0.27	5	0.76	1.5	3.5	0.05	0.05	0	0
86	993	37	690	57	684	5.9	7.3	7.3	0	0
87	6,170	0.1	1.9	0	0	0	1.9	0.02	1.9	0
88	1,246	55	1,029	151	956	17	67	11	0	56
89	161	7.4	140	12	138	2.3	1.5	1.5	0	0
90	74	3.4	64	6.3	63	0.54	0.68	0.68	0	0
91	233	11	216	3.6	5	0.38	213	2.3	0	211
92	51	2.3	43	5.1	43	0	0.46	0.46	0	0

(continued)

Rch	Load cap. (lbs/year)	Res. cap. (lbs/year)	Alloc. (lbs/year)	BG (lbs/year)	Agric. (lbs/year)	NPU (lbs/year)	Wasteload (lbs/year)	GP (lbs/year)	MS4 (lbs/year)	Ind. perm. (lbs/year)
93	9,319	105	1,971	406	1,956	15	21	21	0	0
94	3,315	150	2,824	311	2,795	29	30	30	0	0
95	781	29	540	206	536	3.9	5.8	5.7	0.06	0
96	1,515	65	1,213	67	655	13	559	13	0	546
97	1,051	46	860	136	856	4.5	9.2	9.2	0	0
98	314	15	273	24	257	16	2.9	2.9	0	0
99	1,752	69	1,302	367	1,295	6.2	14	14	0	0
100	699	28	526	65	523	3.3	5.6	5.6	0	0
101	719	28	535	151	527	7.2	5.7	5.7	0	0
102	110	4.1	76	29	74	2	0.81	0.81	0	0
103	76	2.6	48	25	47	1.1	0.51	0.51	0	0
104	357	7.5	140	21	129	11	1.5	1.5	0	0
105	44	0.92	17	3	2.7	15	0.18	0.18	0	0
106	487	22	422	38	419	3.4	4.5	4.5	0	0
107	229	9.6	181	37	178	2.9	1.9	1.9	0	0
108	368	15	287	63	282	5.1	3.1	3.1	0	0
109	498	17	315	164	311	4.3	3.3	3.3	0	0
110	14	0.44	8.3	4.9	8.3	0.05	0.09	0.09	0	0
111	309	9.9	186	111	182	5	2	2	0	0
112	28	0.77	15	2.7	0	3.8	11	0.15	11	0

Total Phosphorus Daily Allocations

Table X.K.2. Daily total phosphorus load allocations by TMDL reach. Some columns names have been abbreviated to fit: Load cap. = loading capacity, Res. cap. = reserve capacity, Alloc. = load allocation, BG = background load, Agric. = agriculture allocation, NPU = non-permitted urban allocation, Wasteload = total wasteload allocation (general permits, MS4s, individual permits), GP = general permits, Ind. perm. = individual permits.

Rch	Load cap. (lbs/day)	Res. cap. (lbs/day)	Alloc. (lbs/day)	BG (lbs/day)	Agric. (lbs/day)	NPU (lbs/day)	Wasteload (lbs/day)	GP (lbs/day)	MS4 (lbs/day)	Ind. perm. (lbs/day)
1	9.4125	0.1539	2.8936	0.6284	2.6978	0.0662	0.1604	0.0308	0.1296	0
2	9.2867	0.4344	8.1668	0.5986	7.9983	0.0590	0.1964	0.0869	0.1095	0
3	7.1043	0.3184	5.9863	0.7359	5.9380	0.0483	0.0637	0.0637	0	0
4	7.6641	0.3344	6.2859	0.9770	6.2105	0.0753	0.0669	0.0669	0	0
5	3.7076	0.1419	2.6685	0.8688	2.6493	0.0192	0.0284	0.0284	0	0
6	0.7423	0.0317	0.5959	0.1083	0.5903	0.0057	0.0063	0.0063	0	0
7	4.7926	0.2242	4.2145	0.3091	4.1950	0.0195	0.0448	0.0448	0	0
8	5.0515	0.2099	3.9458	0.8538	3.9054	0.0400	0.0423	0.0420	0	0.0004
9	1.6717	0.0783	1.4711	0.1067	0.2463	0.0307	1.2097	0.0157	0	1.1941
10	5.7371	0.2464	4.6321	0.8094	4.5991	0.0330	0.0493	0.0493	0	0
11	0.1884	0.0075	0.1401	0.0393	0.1397	0.0004	0.0015	0.0015	0	0
12	5.2782	0.2207	4.1496	0.8637	4.1385	0.0112	0.0441	0.0441	0	0
13	11.5842	0.5316	9.9944	0.9518	9.9692	0.0252	0.1063	0.1063	0	0
14	3.0150	0.1324	2.4890	0.3671	2.4734	0.0156	0.0265	0.0265	0	0
15	8.9668	0.4041	7.4791	1.0028	7.4598	0.0192	0.0808	0.0808	0	0
16	6.6440	0.1210	2.2741	0.4632	2.2576	0.0164	0.0242	0.0242	0	0
17	1.0565	0.0500	0.9396	0.0569	0.9348	0.0048	0.0100	0.0100	0	0
18	2.3557	0.1105	2.0771	0.1461	2.0757	0.0014	0.0221	0.0221	0	0
19	6.9286	0.3252	6.1138	0.4246	6.0939	0.0198	0.0650	0.0650	0	0
20	8.1453	0.3653	6.8672	0.8397	6.8486	0.0186	0.0731	0.0731	0	0
21	7.4684	0.3295	6.1937	0.8794	6.1881	0.0056	0.0659	0.0659	0	0
22	0.8552	0.0317	0.5967	0.2204	0.5950	0.0017	0.0063	0.0063	0	0
23	0.6556	0.0106	0.1990	0.1817	0.1677	0.0123	0.0211	0.0021	0.0190	0
24	5.5043	0.1163	2.1864	0.2070	2.1772	0.0092	0.0233	0.0233	0	0
25	4.0848	0.1901	3.5730	0.2837	3.5668	0.0062	0.0380	0.0380	0	0
26	1.3976	0.0680	1.2787	0.0373	1.2777	0.0010	0.0136	0.0136	0	0
27	3.1850	0.1354	2.5455	0.1268	2.5390	0.0064	0.0271	0.0271	0	0
28	0.3263	0.0103	0.1932	0.0186	0.1923	0.0009	0.0021	0.0021	0	0
29	5.5441	0.2521	4.7402	0.5013	4.7306	0.0096	0.0504	0.0504	0	0

(continued)

Rch	Load cap. (lbs/day)	Res. cap. (lbs/day)	Alloc. (lbs/day)	BG (lbs/day)	Agric. (lbs/day)	NPU (lbs/day)	Wasteload (lbs/day)	GP (lbs/day)	MS4 (lbs/day)	Ind. perm. (lbs/day)
30	1.2588	0.0549	1.0325	0.1605	1.0297	0.0028	0.0110	0.0110	0	0
31	5.9937	0.2803	5.2688	0.3886	2.1819	0.0886	3.0544	0.0561	0	2.9983
32	12.3993	0.5493	10.3268	1.4133	10.2853	0.0414	0.1099	0.1099	0	0
33	6.8087	0.3177	5.9725	0.4550	5.9611	0.0114	0.0635	0.0635	0	0
34	29.8126	0.0234	0.4397	0.0587	0.4289	0.0108	0.0047	0.0047	0	0
35	9.4652	0.4236	7.9645	0.9924	7.9541	0.0103	0.0847	0.0847	0	0
36	4.3627	0.1876	3.5270	0.1898	3.4917	0.0354	0.0375	0.0375	0	0
37	0.2853	0.0121	0.2276	0.0432	0.2203	0.0072	0.0024	0.0024	0	0
38	5.8657	0.2502	4.7029	0.2621	4.6886	0.0143	0.0500	0.0500	0	0
39	2.6875	0.1157	2.1743	0.3745	2.1449	0.0294	0.0231	0.0231	0	0
40	0.5414	0.0220	0.4138	0.1012	0.4068	0.0069	0.0044	0.0044	0	0
41	3.8389	0.1637	3.0772	0.5652	3.0629	0.0143	0.0327	0.0327	0	0
42	5.2338	0.2339	4.3967	0.5565	4.3680	0.0287	0.0468	0.0468	0	0
43	2.1162	0.0903	1.6979	0.3099	1.6778	0.0202	0.0181	0.0181	0	0
44	10.5468	0.4484	8.4304	0.0009	0.0002	0.0847	8.4352	0.0897	0	8.3455
45	0.7954	0.0260	0.4893	0.0866	0.4066	0.0827	0.0052	0.0052	0	0
46	3.0956	0.0533	1.0023	0.2044	0.9626	0.0397	0.0107	0.0107	0	0
47	1.2466	0.0533	1.0018	0.1808	0.9711	0.0307	0.0107	0.0107	0	0
48	2.7162	0.1223	2.2984	0.2711	2.2787	0.0197	0.0245	0.0245	0	0
49	6.0746	0.2779	5.2242	0.5169	5.1917	0.0325	0.0556	0.0556	0	0
50	3.8239	0.1727	3.2469	0.3697	3.2342	0.0127	0.0345	0.0345	0	0
51	3.4916	0.0704	1.3244	0.1620	1.2937	0.0307	0.0141	0.0141	0	0
52	5.6005	0.2019	3.7964	0.3474	2.7723	0.0279	1.0366	0.0404	0	0.9962
53	10.2081	0.4677	8.7920	0.7968	8.6718	0.1203	0.0935	0.0935	0	0
54	1.8897	0.0796	1.4963	0.2978	1.4817	0.0146	0.0159	0.0159	0	0
55	2.2799	0.0873	1.6404	0.4378	1.6104	0.0301	0.0175	0.0175	0	0
56	0.8293	0.0322	0.6060	0.1846	0.6001	0.0059	0.0064	0.0064	0	0
57	0.9084	0.0375	0.7053	0.1410	0.7004	0.0049	0.0075	0.0075	0	0
58	1.4315	0.0525	0.9873	0.3812	0.9602	0.0271	0.0105	0.0105	0	0
59	1.5916	0.0688	1.2935	0.2155	1.2862	0.0073	0.0138	0.0138	0	0
60	0.3313	0.0119	0.2240	0.0930	0.2209	0.0031	0.0024	0.0024	0	0
61	6.0338	0.2457	4.6190	1.1200	4.5950	0.0240	0.0491	0.0491	0	0

(continued)

Rch	Load cap. (lbs/day)	Res. cap. (lbs/day)	Alloc. (lbs/day)	BG (lbs/day)	Agric. (lbs/day)	NPU (lbs/day)	Wasteload (lbs/day)	GP (lbs/day)	MS4 (lbs/day)	Ind. perm. (lbs/day)
62	3.8442	0.1529	2.8754	0.7852	2.8475	0.0279	0.0306	0.0306	0	0
63	0.7667	0.0375	0.7053	0.0164	0.1327	0.0012	0.5789	0.0075	0	0.5714
64	1.0391	0.0478	0.8977	0.0841	0.8926	0.0051	0.0096	0.0096	0	0
65	2.2178	0.1032	1.9406	0.1534	1.7327	0.0127	0.2159	0.0206	0	0.1952
66	5.3837	0.2495	4.6905	0.3938	4.6604	0.0301	0.0499	0.0499	0	0
67	1.4596	0.0623	1.1710	0.2139	1.1471	0.0239	0.0125	0.0125	0	0
68	0.2547	0.0095	0.1780	0.0653	0.1780	0	0.0019	0.0019	0	0
69	1.0900	0.0046	0.0862	0.0148	0.0858	0.0005	0.0009	0.0009	0	0
70	0.2070	0.0081	0.1525	0.0448	0.1510	0.0015	0.0016	0.0016	0	0
71	0.0737	0.0033	0.0616	0.0081	0.0613	0.0003	0.0007	0.0007	0	0
72	0.0574	0.0026	0.0494	0.0048	0.0490	0.0004	0.0005	0.0005	0	0
73	0.1743	0.0012	0.0218	0.0132	0.0168	0.0051	0.0002	0.0002	0	0
74	0.1072	0.0001	0.0025	0.0225	0	0.0025	0	0	0	0
75	0.1690	0	0	0.0033	0	0	0	0	0	0
76	0.0702	0.0011	0.0212	0.0157	0.0211	0.0002	0.0002	0.0002	0	0
77	0.1105	0.0039	0.0731	0.0327	0.0670	0.0061	0.0008	0.0008	0	0
78	0.1442	0.0060	0.1132	0.0239	0.1118	0.0014	0.0012	0.0012	0	0
79	0.0379	0.0001	0.0028	0.0101	0	0.0028	0	0	0	0
80	0.6341	0.0109	0.2047	0.0536	0.2040	0.0007	0.0022	0.0022	0	0
81	0.0175	0.0003	0.0049	0.0120	0.0049	0	0.0001	0.0001	0	0
82	0.0680	0.0032	0.0603	0.0038	0.0573	0.0030	0.0006	0.0006	0	0
83	0.0998	0.0028	0.0526	0.0029	0.0526	0	0.0006	0.0006	0	0
84	0.0815	0.0035	0.0658	0.0115	0.0653	0.0005	0.0007	0.0007	0	0
85	0.0166	0.0007	0.0137	0.0021	0.0041	0.0095	0.0001	0.0001	0	0
86	2.7181	0.1004	1.8883	0.1562	1.8720	0.0163	0.0201	0.0201	0	0
87	16.8926	0.0003	0.0053	0	0	0	0.0053	0.0001	0.0053	0
88	3.4111	0.1498	2.8169	0.4144	2.6176	0.0466	0.1827	0.0300	0	0.1527
89	0.4413	0.0204	0.3827	0.0342	0.3765	0.0062	0.0041	0.0041	0	0
90	0.2022	0.0093	0.1740	0.0172	0.1725	0.0015	0.0019	0.0019	0	0
91	0.6390	0.0315	0.5915	0.0097	0.0136	0.0010	0.5831	0.0063	0	0.5768
92	0.1395	0.0063	0.1180	0.0140	0.1180	0	0.0013	0.0013	0	0
93	25.5150	0.2870	5.3955	1.1109	5.3543	0.0412	0.0574	0.0574	0	0
94	9.0768	0.4113	7.7318	0.8515	7.6537	0.0781	0.0823	0.0823	0	0

(continued)

Rch	Load cap. (lbs/day)	Res. cap. (lbs/day)	Alloc. (lbs/day)	BG (lbs/day)	Agric. (lbs/day)	NPU (lbs/day)	Wasteload (lbs/day)	GP (lbs/day)	MS4 (lbs/day)	Ind. perm. (lbs/day)
95	2.1371	0.0787	1.4790	0.5637	1.4682	0.0106	0.0159	0.0157	0.0002	0
96	4.1475	0.1767	3.3214	0.1846	1.7928	0.0347	1.5292	0.0353	0	1.4938
97	2.8774	0.1253	2.3549	0.3722	2.3425	0.0124	0.0251	0.0251	0	0
98	0.8606	0.0397	0.7466	0.0664	0.7026	0.0440	0.0079	0.0079	0	0
99	4.7962	0.1896	3.5637	1.0050	3.5468	0.0169	0.0379	0.0379	0	0
100	1.9125	0.0766	1.4402	0.1775	1.4311	0.0091	0.0153	0.0153	0	0
101	1.9698	0.0779	1.4640	0.4124	1.4442	0.0198	0.0156	0.0156	0	0
102	0.3016	0.0111	0.2085	0.0797	0.2030	0.0055	0.0022	0.0022	0	0
103	0.2072	0.0070	0.1313	0.0675	0.1283	0.0030	0.0014	0.0014	0	0
104	0.9783	0.0204	0.3841	0.0582	0.3536	0.0306	0.0041	0.0041	0	0
105	0.1212	0.0025	0.0476	0.0082	0.0075	0.0401	0.0005	0.0005	0	0
106	1.3342	0.0614	1.1552	0.1052	1.1458	0.0094	0.0123	0.0123	0	0
107	0.6274	0.0263	0.4948	0.1010	0.4868	0.0080	0.0053	0.0053	0	0
108	1.0084	0.0418	0.7861	0.1721	0.7721	0.0140	0.0084	0.0084	0	0
109	1.3646	0.0458	0.8618	0.4478	0.8501	0.0117	0.0092	0.0092	0	0
110	0.0376	0.0012	0.0227	0.0134	0.0226	0.0001	0.0002	0.0002	0	0
111	0.8459	0.0272	0.5106	0.3027	0.4970	0.0136	0.0054	0.0054	0	0
112	0.0778	0.0021	0.0398	0.0074	0	0.0105	0.0297	0.0004	0.0293	0

Total Phosphorus Allocations by Permitted Point Source

Table X.K.3. Total phosphorus wasteload allocations for each individual permitted point source.

Reach	Permit no.	Outfall no.	Name	Allocation (lbs/year)	Allocation (lbs/day)
31	20176	1	KEWAUNEE WASTEWATER TREATMENT FACILITY	1,273	3.4864
44	20745	1	ALGOMA WASTEWATER TREATMENT FACILITY	3,048	8.3454
9	21741	1	DENMARK WASTEWATER TREATMENT FACILITY	436	1.1940
96	23566	1	CASCO WASTEWATER TREATMENT FACILITY	546	1.4938
52	28894	1	FORESTVILLE WASTEWATER TREATMENT FACILITY	364	0.9962
88	35874	1	KOSSUTH SANITARY DISTRICT NO. 2 WWTF	56	0.1527
91	50237	9	AGROPUR INC. - LUXEMBURG	211	0.5768
63	51128	7	BELGIOIOSO CHEESE, INC. - DENMARK	209	0.5714
65	61051	2	MARIBEL WASTEWATER TREATMENT FACILITY	71	0.1952
8	64629	6	NEW ORGANIC DIGESTION LLC	0.19	0.0005

Total Phosphorus Allocations by MS4

Table X.K.4. Total phosphorus wasteload allocations for each permitted MS4 and the reaches they drain to.

Municipality	Reach	Area (acres)	Allocation (lbs/year)	Allocation (lbs/day)	Reduction from baseline (%)	Reduction from no-controls (%)
City of Manitowoc	1	11	0	0.001	0	15
City of Two Rivers	1	1,806	47	0.129	0	15
City of Two Rivers	112	144	11	0.029	0	15
City of Two Rivers	2	1,099	40	0.110	15	28
City of Two Rivers	23	326	7	0.019	0	15
City of Two Rivers	87	7	2	0.005	0	15
City of Two Rivers	95	78	0	0.000	69	74

Total Phosphorus Percent Reductions

Table X.K.5. Total phosphorus reductions from baseline.

Reach	Reach description	Percent reduction (%)	Load reduction (lbs/year)
1	West Twin River—mile 0.2 to 6.9	0.0	0
2	East Twin River—mouth to mile 8.2	15.5	248
3	West Twin River—mile 6.9 to 11.6	27.8	381
4	East Twin River—mile 8.2 to 13	41.8	748
5	Devils River—mouth to mile 4.9	51.5	470
6	Neshota River—mouth to mile 1.7	56.1	126
7	Black Creek—mouth to mile 6.4	53.7	810
8	Neshota River—mile 1.7 to 6.4	66.1	1,273
9	Unnamed tributary to Neshota River	80.3	991
10	Neshota River—mile 6.4 to 10.5	66.3	1,511
11	Neshota River—mile 10.5 to 11	46.2	20
12	King Creek	75.5	2,114
13	Devils River—mile 4.9 to headwaters	40.7	1,135
14	Unnamed tributary to Devils River	54.0	484
15	Jambo Creek—mouth to mile 8.1	0.0	19
16	East Twin River—mile 8.2 to 19.4	0.0	0
17	Jambo Creek—mile 8.1 to 10.1	58.9	223
18	Unnamed tributary to Jambo Creek	19.6	84
19	Tisch Mills Creek	15.7	188
20	East Twin River—mile 19.4 to 26.4	55.3	1,408
21	Black Creek—mile 6.4 to headwaters	61.9	1,666
22	Unnamed tributary to Lake Michigan	89.2	817
23	Molash Creek—mouth to mile 1.1	0.0	0
24	East Twin River—mile 26.4 to 32.1	0.0	0
25	Unnamed tributary to East Twin River	27.2	221
26	East Twin River—mile 32.1 to 34.2	19.1	50
27	Krok Creek	0.0	0
28	Unnamed tributary to East Twin River	0.0	0
29	East Twin River—mile 34.2 to headwaters	65.6	1,495
30	Unnamed tributary to Lake Michigan	86.6	1,109

(continued)

Reach	Reach description	Percent reduction (%)	Load reduction (lbs/year)
31	Kewaunee River—mouth to mile 6.5	22.6	254
32	Kewaunee River—mile 6.5 to 15.1	20.2	434
33	Scarboro Creek—mouth to mile 6	61.6	1,587
34	Kewaunee River—mile 15.1 to 16.4	0.0	0
35	Scarboro Creek—mile 6 to headwaters	58.8	1,886
36	Casco Creek—mouth to mile 1.7	0.0	0
37	Kewaunee River—mile 16.4 to 18	9.1	4
38	Casco Creek—mile 6.3 to headwaters	0.0	0
39	Kewaunee River—mile 18 to 19.5	75.7	1,125
40	School Creek—mouth to mile 2.1	78.9	256
41	Kewaunee River—mile 19.5 to 23.2	67.2	1,043
42	School Creek—mile 5.5 to headwaters	70.2	1,719
43	Kewaunee River—mile 23.2 to headwaters	69.6	645
44	Ahnapee River—mouth to mile 0.9	0.0	0
45	Silver Creek (South)—mouth to mile 2.1	0.0	0
46	Ahnapee River—mile 0.9 to 3.3	0.0	0
47	Silver Creek (South)—mile 2.1 to 6.9	27.7	63
48	Rio Creek—mouth to mile 4.2	49.5	373
49	Silver Creek—mile 6.9 to headwaters	34.8	462
50	Rio Creek—mile 4.2 to headwaters	45.8	454
51	Ahnapee River—mile 3.3 to 7.1	0.0	0
52	Ahnapee River—mile 7.1 to 7.9	0.0	0
53	Ahnapee River—mile 11.7 to headwaters	0.0	0
54	Stony Creek—mouth to mile 8.2	11.8	33
55	Stony Creek—mile 8.2 to headwaters	0.0	0
56	Bear Creek	53.7	117
57	Silver Creek (North)	0.0	0
58	Threemile Creek—mouth to Krohns Lake	46.2	141
59	Mashek Creek	56.5	278
60	Unnamed tributary to Lake Michigan	84.5	203
61	Neshota River—mile 11 to headwaters	62.1	1,253
62	Unnamed tributary to Neshota River	50.0	476

(continued)

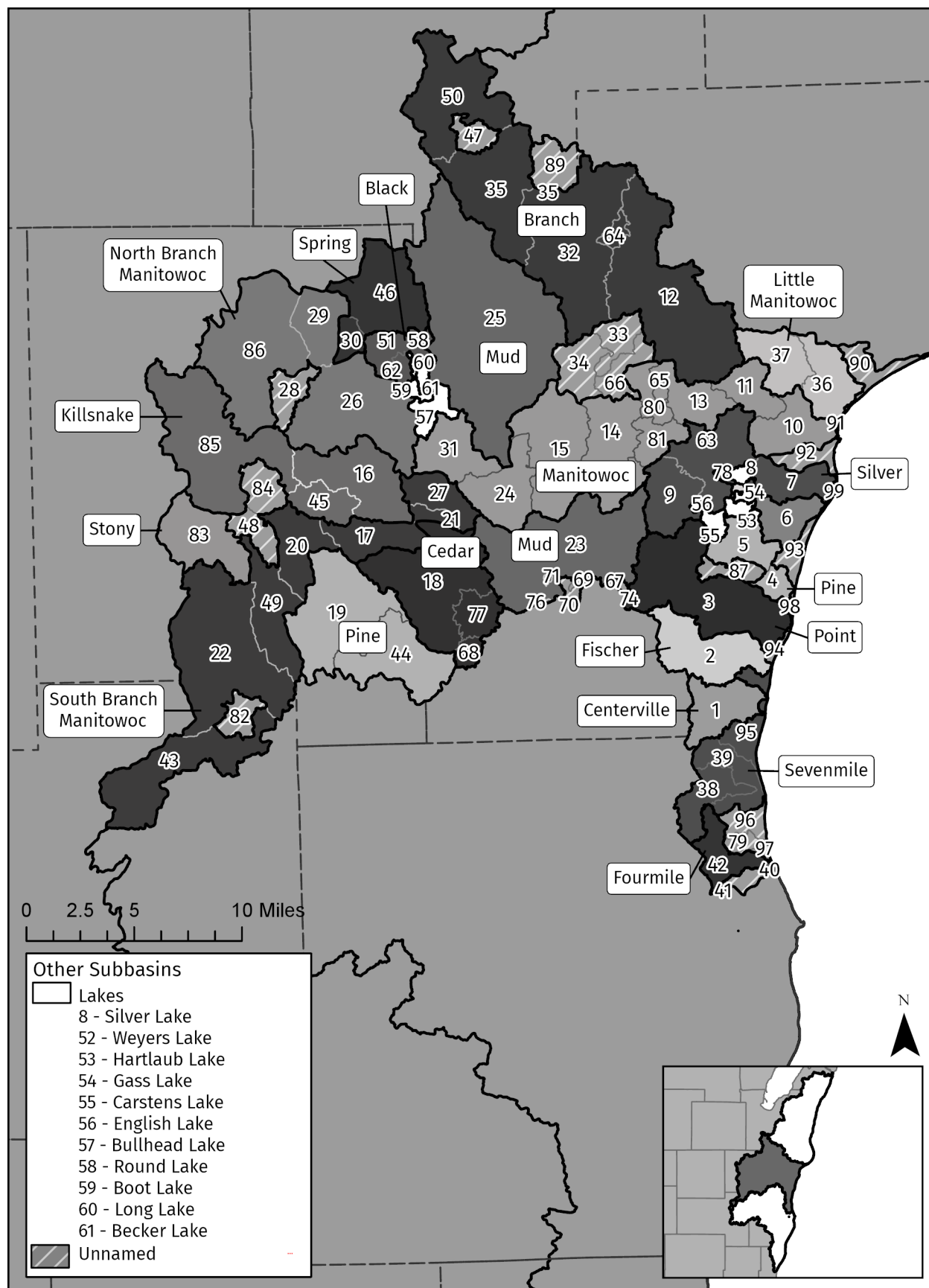
Reach	Reach description	Percent reduction (%)	Load reduction (lbs/year)
63	Unnamed stream	85.6	695
64	Unnamed stream	30.9	66
65	Unnamed tributary to Kriwanek Creek	51.3	338
66	Kriwanek Creek—mile 0.7 to headwaters	35.8	434
67	Unnamed tributary to West Twin River	14.7	33
68	Harpt Lake	56.8	39
69	Jambo Creek—mile 10.1 to 10.7	0.0	0
70	Jambo Creek—mile 10.7 to headwaters	55.5	32
71	Heidmann Lake	0.0	0
72	Chada Lake	0.0	0
73	East Alaska Lake	0.0	0
74	Lilly Lake	0.0	0
75	Middle Lake	0.0	0
76	Third Lake	0.0	0
77	West Alaska Lake	6.0	1
78	Krohns Lake	17.8	4
79	Hidden Lake	0.0	0
80	Unnamed lake/pond	0.0	0
81	Tuma Lake	0.0	0
82	Seidel Lake	79.8	40
83	Mott Lake	0.0	0
84	Silver Lake	63.1	19
85	Stump Pond	57.4	3
86	Ahnapee River—mile 9.8 to 11.7	0.0	0
87	West Twin River—mouth to mile 0.2	0.0	0
88	Unnamed stream	54.9	568
89	Unnamed stream	56.3	82
90	Unnamed stream	47.7	26
91	Unnamed stream	89.8	865
92	Unnamed stream	17.8	4
93	West Twin River—mile 11.6 to 18.6	0.0	0
94	Francis Creek	12.7	187
95	Molash Creek—mile 1.1 to headwaters	68.9	543

(continued)

Reach	Reach description	Percent reduction (%)	Load reduction (lbs/year)
96	Casco Creek—mile 1.7 to 6.3	0.0	0
97	School Creek—mile 2.1 to 5.5	77.5	1,342
98	Unnamed tributary to School Creek	61.4	197
99	Unnamed tributary to Kewaunee River	74.4	1,715
100	Ahnapee River—mile 7.9 to 9.8	0.0	0
101	Woodard Creek	62.4	403
102	Unnamed tributaries to Lake Michigan	44.2	27
103	Unnamed tributaries to Lake Michigan	42.6	16
104	Unnamed tributaries to Lake Michigan	0.0	0
105	Unnamed tributaries to Lake Michigan	0.0	0
106	Unnamed tributaries to Lake Michigan	75.6	592
107	Unnamed tributaries to Lake Michigan	74.1	235
108	Unnamed tributaries to Lake Michigan	88.2	970
109	Unnamed tributaries to Lake Michigan	89.7	1,246
110	Unnamed tributaries to Lake Michigan	93.7	56
111	Unnamed tributaries to Lake Michigan	78.1	302
112	Unnamed Pond	0.0	0

Manitowoc River Basin Region

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Total Phosphorus Annual Allocations

Table X.M.1. Annual total phosphorus load allocations by TMDL reach. Some columns names have been abbreviated to fit: Load cap. = loading capacity, Res. cap. = reserve capacity, Alloc. = load allocation, BG = background load, Agric. = agriculture allocation, NPU = non-permitted urban allocation, Wasteload = total wasteload allocation (general permits, MS4s, individual permits), GP = general permits, Ind. perm. = individual permits.

Rch	Load cap. (lbs/year)	Res. cap. (lbs/year)	Alloc. (lbs/year)	BG (lbs/year)	Agric. (lbs/year)	NPU (lbs/year)	Wasteload (lbs/year)	GP (lbs/year)	MS4 (lbs/year)	Ind. perm. (lbs/year)
1	1,146	45	854	238	820	34	9.1	9.1	0	0
2	2,034	89	1,671	256	1,658	14	18	18	0	0
3	3,737	154	2,904	648	2,882	22	31	31	0	0
4	219	9.7	183	24	179	4.4	2	1.9	0	0.05
5	983	42	794	138	786	8	8.5	8.5	0	0
6	917	40	743	127	728	15	7.9	7.9	0	0
7	909	34	646	221	569	38	47	6.9	40	0
8	105	2.1	39	63	23	6.2	11	0.42	2	8.2
9	1,227	55	1,038	122	1,037	1.9	11	11	0	0
10	1,365	65	1,230	56	66	16	1,161	13	119	1,029
11	11,292	56	1,053	126	983	51	30	11	19	0
12	11,821	436	8,195	817	8,135	60	87	87	0	0
13	961	33	623	299	619	3.7	6.6	6.6	0	0
14	1,154	49	924	171	910	4.1	19	9.8	0	9.5
15	2,405	94	1,766	526	1,576	22	186	19	0	168
16	1,500	67	1,258	161	1,255	3.8	13	13	0	0
17	656	28	536	86	532	3.5	5.7	5.7	0	0
18	1,441	56	1,046	328	1,039	6.5	11	11	0	0
19	1,955	82	1,548	308	1,540	8.7	16	16	0	0
20	1,206	55	1,026	114	483	27	528	11	0	517
21	146	1.2	22	3.1	22	0	0.24	0.24	0	0
22	2,715	124	2,334	232	2,325	9	25	25	0	0
23	5,550	241	4,536	725	4,241	38	306	48	0	258
24	5,376	49	929	85	924	4.6	9.9	9.9	0	0
25	4,005	127	2,379	1,474	2,169	15	220	25	0	195
26	2,334	107	2,019	186	1,929	27	84	21	0	63
27	534	24	448	58	445	2.5	4.8	4.8	0	0
28	537	24	454	54	227	9	223	4.8	0	218

(continued)

Rch	Load cap. (lbs/year)	Res. cap. (lbs/year)	Alloc. (lbs/year)	BG (lbs/year)	Agric. (lbs/year)	NPU (lbs/year)	Wasteload (lbs/year)	GP (lbs/year)	MS4 (lbs/year)	Ind. perm. (lbs/year)
29	785	35	665	78	655	10	7.1	7.1	0	0
30	200	0.13	2.4	19	1.5	0.87	0.03	0.03	0	0
31	9,775	57	1,080	129	1,075	5.5	11	11	0	0
32	6,182	291	5,469	364	5,449	20	58	58	0	0
33	1,004	46	859	90	855	4.7	9.1	9.1	0	0
34	1,659	72	1,362	209	1,359	2.9	14	14	0	0
35	4,209	178	3,354	641	3,345	9.5	36	36	0	0
36	320	11	212	94	178	3.3	33	2.3	31	0
37	391	13	242	134	232	4.1	7.5	2.6	4.9	0
38	760	35	661	57	656	5.7	7	7	0	0
39	710	33	616	54	605	11	6.6	6.6	0	0
40	88	0.05	0.92	1.6	0	0	0.93	0.01	0.92	0
41	207	6.5	123	9.5	83	0	40	1.3	39	0
42	718	34	640	37	601	19	26	6.8	19	0
43	1,380	64	1,208	95	1,202	6.2	13	13	0.08	0
44	1,413	69	1,300	31	297	0.61	1,016	14	0	1,002
45	559	24	458	71	456	1.9	4.9	4.9	0	0
46	1,563	63	1,178	310	1,128	51	13	13	0	0
47	669	31	591	40	514	2.5	81	6.3	0	74
48	433	19	362	47	237	2.6	126	3.9	0	123
49	1,046	46	866	125	862	4.1	9.2	9.2	0	0
50	3,932	185	3,475	235	3,462	13	37	37	0	0
51	688	30	560	92	545	15	6	6	0	0
52	12	0.03	0.56	9.1	0.22	0.34	0.01	0.01	0	0
53	150	5.5	104	34	100	3.9	1.1	1.1	0	0
54	31	0.26	4.9	25	4.5	0.38	0.05	0.05	0	0
55	106	3.1	58	44	57	0.99	0.62	0.62	0	0
56	62	2.3	43	16	34	8.4	0.45	0.45	0	0
57	36	0.26	4.8	31	4.5	0.3	0.05	0.05	0	0
58	23	0.09	1.7	3.5	1.7	0	0.02	0.02	0	0
59	19	0.66	13	5.4	12	0.77	0.13	0.13	0	0
60	74	0.44	8.3	66	7.4	0.84	0.09	0.09	0	0

(continued)

Rch	Load cap. (lbs/year)	Res. cap. (lbs/year)	Alloc. (lbs/year)	BG (lbs/year)	Agric. (lbs/year)	NPU (lbs/year)	Wasteload (lbs/year)	GP (lbs/year)	MS4 (lbs/year)	Ind. perm. (lbs/year)
61	56	2	37	17	37	0.32	0.4	0.4	0	0
62	323	15	285	20	285	0	3	3	0	0
63	1,720	72	1,353	281	1,342	7.2	18	14	3.7	0
64	367	3.6	68	42	67	1.4	0.73	0.73	0	0
65	62	1.8	33	27	33	0.03	0.35	0.35	0	0
66	1,229	56	1,052	109	891	4.2	168	11	0	157
67	47	0.94	18	28	18	0	0.19	0.19	0	0
68	169	6.6	124	38	124	0.35	1.3	1.3	0	0
69	50	0.44	8.3	6.6	7.5	0.76	0.09	0.09	0	0
70	181	4	75	16	74	0.93	0.79	0.79	0	0
71	19	0.63	12	2	7.2	4.6	0.13	0.13	0	0
72	44	1.2	23	20	22	0.62	0.24	0.24	0	0
73	22	0.21	3.9	17	0.36	3.5	0.04	0.04	0	0
74	30	0.74	14	15	14	0	0.15	0.15	0	0
75	11	0.36	6.7	3	6.7	0	0.07	0.07	0	0
76	29	1.4	26	1.4	26	0	0.28	0.28	0	0
77	347	8.5	160	177	159	0.91	1.7	1.7	0	0
78	65	2.7	50	12	50	0.27	0.6	0.53	0.07	0
79	191	8.9	168	13	106	12	52	1.8	0	50
80	373	9.1	172	190	170	1.8	1.8	1.8	0	0
81	494	19	366	104	362	4.6	3.9	3.9	0	0
82	262	12	222	26	221	1.2	2.4	2.4	0	0
83	1,268	57	1,067	134	1,064	2.8	11	11	0	0
84	523	23	440	54	438	2.2	4.7	4.7	0	0
85	3,283	149	2,796	309	2,789	6.1	30	30	0	0
86	3,132	145	2,733	225	2,714	18	29	29	0	0
87	372	17	322	30	318	4	3.4	3.4	0	0
89	1,099	46	866	39	862	4.1	9.2	9.2	0	0
90	197	7.8	147	41	116	3	29	1.6	28	0
91	13	0.65	12	0	0	0	12	0.13	12	0
92	492	9.8	184	21	0	0	186	2	184	0
93	231	10	193	26	189	4.3	2.1	2.1	0	0

(continued)

Rch	Load cap. (lbs/year)	Res. cap. (lbs/year)	Alloc. (lbs/year)	BG (lbs/year)	Agric. (lbs/year)	NPU (lbs/year)	Wasteload (lbs/year)	GP (lbs/year)	MS4 (lbs/year)	Ind. perm. (lbs/year)
94	86	2.7	52	9.7	48	3.3	0.55	0.55	0	0
95	625	30	557	32	543	14	5.9	5.9	0	0
96	324	14	268	39	262	5.9	2.9	2.9	0	0
97	43	0.98	18	2.3	15	3.3	0.35	0.2	0.16	0
98	52	2.2	41	8.4	40	0.95	0.43	0.43	0	0
99	20	0.27	5.1	9.6	0	4.9	0.25	0.05	0.2	0

Total Phosphorus Daily Allocations

Table X.M.2. Daily total phosphorus load allocations by TMDL reach. Some columns names have been abbreviated to fit: Load cap. = loading capacity, Res. cap. = reserve capacity, Alloc. = load allocation, BG = background load, Agric. = agriculture allocation, NPU = non-permitted urban allocation, Wasteload = total wasteload allocation (general permits, MS4s, individual permits), GP = general permits, Ind. perm. = individual permits.

Rch	Load cap. (lbs/day)	Res. cap. (lbs/day)	Alloc. (lbs/day)	BG (lbs/day)	Agric. (lbs/day)	NPU (lbs/day)	Wasteload (lbs/day)	GP (lbs/day)	MS4 (lbs/day)	Ind. perm. (lbs/day)
1	3.1387	0.1243	2.3371	0.6524	2.2441	0.0930	0.0249	0.0249	0	0
2	5.5698	0.2434	4.5762	0.7015	4.5389	0.0374	0.0487	0.0487	0	0
3	10.2321	0.4229	7.9504	1.7742	7.8893	0.0612	0.0846	0.0846	0	0
4	0.5991	0.0267	0.5011	0.0661	0.4887	0.0122	0.0055	0.0053	0	0.0001
5	2.6904	0.1157	2.1749	0.3767	2.1529	0.0220	0.0231	0.0231	0	0
6	2.5111	0.1082	2.0333	0.3481	1.9925	0.0407	0.0216	0.0216	0	0
7	2.4885	0.0941	1.7697	0.6059	1.5572	0.1034	0.1279	0.0188	0.1091	0
8	0.2867	0.0057	0.1070	0.1728	0.0621	0.0170	0.0292	0.0011	0.0056	0.0225
9	3.3581	0.1512	2.8431	0.3335	2.8381	0.0051	0.0302	0.0302	0	0
10	3.7365	0.1791	3.3673	0.1542	0.1804	0.0432	3.1796	0.0358	0.3255	2.8182
11	30.9168	0.1534	2.8830	0.3456	2.6919	0.1388	0.0830	0.0307	0.0523	0
12	32.3649	1.1935	22.4373	2.2373	22.2724	0.1649	0.2387	0.2387	0	0
13	2.6320	0.0907	1.7051	0.8182	1.6949	0.0102	0.0181	0.0181	0	0
14	3.1587	0.1345	2.5288	0.4684	2.4914	0.0113	0.0530	0.0269	0	0.0261
15	6.5841	0.2572	4.8348	1.4407	4.3159	0.0598	0.5106	0.0514	0	0.4591
16	4.1056	0.1833	3.4453	0.4405	3.4348	0.0105	0.0367	0.0367	0	0
17	1.7970	0.0780	1.4668	0.2366	1.4573	0.0095	0.0156	0.0156	0	0
18	3.9446	0.1523	2.8625	0.8994	2.8448	0.0178	0.0305	0.0305	0	0
19	5.3532	0.2255	4.2394	0.8432	4.2155	0.0239	0.0451	0.0451	0	0
20	3.3024	0.1495	2.8100	0.3131	1.3223	0.0732	1.4444	0.0299	0	1.4145
21	0.4006	0.0033	0.0613	0.0085	0.0613	0	0.0007	0.0007	0	0
22	7.4334	0.3400	6.3911	0.6343	6.3664	0.0248	0.0680	0.0680	0	0
23	15.1963	0.6606	12.4199	1.9837	11.6106	0.1037	0.8378	0.1321	0	0.7057
24	14.7183	0.1353	2.5432	0.2318	2.5306	0.0126	0.0271	0.0271	0	0
25	10.9648	0.3464	6.5122	4.0369	5.9382	0.0398	0.6035	0.0693	0	0.5342
26	6.3901	0.2940	5.5275	0.5098	5.2825	0.0734	0.2304	0.0588	0	0.1716
27	1.4621	0.0652	1.2262	0.1576	1.2193	0.0070	0.0130	0.0130	0	0
28	1.4706	0.0662	1.2438	0.1474	0.6213	0.0245	0.6112	0.0132	0	0.5980

(continued)

Rch	Load cap. (lbs/day)	Res. cap. (lbs/day)	Alloc. (lbs/day)	BG (lbs/day)	Agric. (lbs/day)	NPU (lbs/day)	Wasteload (lbs/day)	GP (lbs/day)	MS4 (lbs/day)	Ind. perm. (lbs/day)
29	2.1498	0.0968	1.8204	0.2132	1.7921	0.0282	0.0194	0.0194	0	0
30	0.5475	0.0003	0.0066	0.0510	0.0042	0.0024	0.0001	0.0001	0	0
31	26.7623	0.1573	2.9575	0.3542	2.9423	0.0152	0.0315	0.0315	0	0
32	16.9248	0.7964	14.9728	0.9963	14.9177	0.0550	0.1593	0.1593	0	0
33	2.7500	0.1251	2.3527	0.2472	2.3398	0.0129	0.0250	0.0250	0	0
34	4.5409	0.1984	3.7294	0.5735	3.7214	0.0080	0.0397	0.0397	0	0
35	11.5248	0.4885	9.1836	1.7550	9.1574	0.0261	0.0977	0.0977	0	0
36	0.8756	0.0309	0.5807	0.2578	0.4874	0.0090	0.0906	0.0062	0.0844	0
37	1.0710	0.0352	0.6613	0.3675	0.6365	0.0113	0.0206	0.0070	0.0135	0
38	2.0821	0.0963	1.8110	0.1555	1.7953	0.0157	0.0193	0.0193	0	0
39	1.9442	0.0898	1.6876	0.1489	1.6564	0.0312	0.0180	0.0180	0	0
40	0.2420	0.0001	0.0025	0.0045	0	0	0.0025	0	0.0025	0
41	0.5667	0.0178	0.3354	0.0260	0.2282	0	0.1108	0.0036	0.1072	0
42	1.9653	0.0932	1.7514	0.1021	1.6461	0.0528	0.0711	0.0186	0.0525	0
43	3.7789	0.1760	3.3087	0.2590	3.2916	0.0169	0.0354	0.0352	0.0002	0
44	3.8697	0.1893	3.5580	0.0846	0.8136	0.0017	2.7806	0.0379	0	2.7428
45	1.5298	0.0667	1.2542	0.1956	1.2490	0.0051	0.0133	0.0133	0	0
46	4.2799	0.1716	3.2263	0.8476	3.0873	0.1390	0.0343	0.0343	0	0
47	1.8311	0.0861	1.6185	0.1093	1.4082	0.0069	0.2206	0.0172	0	0.2034
48	1.1842	0.0527	0.9914	0.1295	0.6485	0.0071	0.3463	0.0105	0	0.3358
49	2.8641	0.1261	2.3701	0.3427	2.3589	0.0112	0.0252	0.0252	0	0
50	10.7642	0.5061	9.5139	0.6431	9.4782	0.0357	0.1012	0.1012	0	0
51	1.8827	0.0816	1.5334	0.2514	1.4932	0.0402	0.0163	0.0163	0	0
52	0.0320	0.0001	0.0015	0.0250	0.0006	0.0009	0	0	0	0
53	0.4104	0.0151	0.2840	0.0933	0.2732	0.0108	0.0030	0.0030	0	0
54	0.0839	0.0007	0.0134	0.0697	0.0123	0.0010	0.0001	0.0001	0	0
55	0.2897	0.0085	0.1600	0.1195	0.1573	0.0027	0.0017	0.0017	0	0
56	0.1690	0.0062	0.1171	0.0445	0.0941	0.0230	0.0012	0.0012	0	0
57	0.0978	0.0007	0.0132	0.0838	0.0123	0.0008	0.0001	0.0001	0	0
58	0.0640	0.0003	0.0048	0.0097	0.0048	0	0.0001	0.0001	0	0
59	0.0513	0.0018	0.0342	0.0149	0.0321	0.0021	0.0004	0.0004	0	0
60	0.2034	0.0012	0.0226	0.1794	0.0203	0.0023	0.0002	0.0002	0	0

(continued)

Rch	Load cap. (lbs/day)	Res. cap. (lbs/day)	Alloc. (lbs/day)	BG (lbs/day)	Agric. (lbs/day)	NPU (lbs/day)	Wasteload (lbs/day)	GP (lbs/day)	MS4 (lbs/day)	Ind. perm. (lbs/day)
61	0.1544	0.0054	0.1019	0.0460	0.1010	0.0009	0.0011	0.0011	0	0
62	0.8843	0.0414	0.7792	0.0553	0.7792	0	0.0083	0.0083	0	0
63	4.7097	0.1971	3.7052	0.7680	3.6752	0.0197	0.0497	0.0394	0.0103	0
64	1.0061	0.0100	0.1873	0.1147	0.1834	0.0039	0.0020	0.0020	0	0
65	0.1694	0.0048	0.0907	0.0729	0.0906	0.0001	0.0010	0.0010	0	0
66	3.3636	0.1532	2.8804	0.2993	2.4383	0.0115	0.4612	0.0306	0	0.4306
67	0.1275	0.0026	0.0486	0.0757	0.0486	0	0.0005	0.0005	0	0
68	0.4639	0.0180	0.3391	0.1031	0.3381	0.0010	0.0036	0.0036	0	0
69	0.1379	0.0012	0.0227	0.0180	0.0206	0.0021	0.0002	0.0002	0	0
70	0.4963	0.0109	0.2040	0.0450	0.2014	0.0026	0.0022	0.0022	0	0
71	0.0529	0.0017	0.0324	0.0056	0.0198	0.0126	0.0003	0.0003	0	0
72	0.1196	0.0033	0.0616	0.0541	0.0599	0.0017	0.0007	0.0007	0	0
73	0.0605	0.0006	0.0106	0.0452	0.0010	0.0096	0.0001	0.0001	0	0
74	0.0808	0.0020	0.0379	0.0404	0.0379	0	0.0004	0.0004	0	0
75	0.0297	0.0010	0.0183	0.0083	0.0183	0	0.0002	0.0002	0	0
76	0.0797	0.0038	0.0712	0.0039	0.0712	0	0.0008	0.0008	0	0
77	0.9504	0.0233	0.4378	0.4847	0.4353	0.0025	0.0047	0.0047	0	0
78	0.1786	0.0073	0.1371	0.0328	0.1362	0.0007	0.0016	0.0015	0.0002	0
79	0.5225	0.0244	0.4587	0.0345	0.2896	0.0325	0.1416	0.0049	0	0.1367
80	1.0211	0.0250	0.4707	0.5204	0.4658	0.0049	0.0050	0.0050	0	0
81	1.3513	0.0533	1.0023	0.2850	0.9898	0.0125	0.0107	0.0107	0	0
82	0.7173	0.0323	0.6079	0.0706	0.6045	0.0033	0.0065	0.0065	0	0
83	3.4729	0.1553	2.9204	0.3660	2.9128	0.0076	0.0311	0.0311	0	0
84	1.4312	0.0641	1.2054	0.1489	1.1993	0.0061	0.0128	0.0128	0	0
85	8.9885	0.4071	7.6539	0.8460	7.6372	0.0167	0.0814	0.0814	0	0
86	8.5763	0.3980	7.4820	0.6167	7.4315	0.0505	0.0796	0.0796	0	0
87	1.0188	0.0469	0.8815	0.0811	0.8706	0.0109	0.0094	0.0094	0	0
89	3.0080	0.1261	2.3702	0.1059	2.3591	0.0111	0.0252	0.0252	0	0
90	0.5385	0.0214	0.4015	0.1114	0.3172	0.0082	0.0803	0.0043	0.0761	0
91	0.0357	0.0018	0.0335	0	0	0	0.0339	0.0004	0.0335	0
92	1.3468	0.0269	0.5049	0.0584	0	0	0.5103	0.0054	0.5049	0
93	0.6332	0.0281	0.5284	0.0710	0.5166	0.0119	0.0056	0.0056	0	0

(continued)

Rch	Load cap. (lbs/day)	Res. cap. (lbs/day)	Alloc. (lbs/day)	BG (lbs/day)	Agric. (lbs/day)	NPU (lbs/day)	Wasteload (lbs/day)	GP (lbs/day)	MS4 (lbs/day)	Ind. perm. (lbs/day)
94	0.2348	0.0075	0.1410	0.0265	0.1320	0.0090	0.0015	0.0015	0	0
95	1.7099	0.0811	1.5246	0.0880	1.4862	0.0384	0.0162	0.0162	0	0
96	0.8872	0.0391	0.7344	0.1059	0.7182	0.0162	0.0078	0.0078	0	0
97	0.1170	0.0027	0.0502	0.0062	0.0406	0.0091	0.0010	0.0005	0.0004	0
98	0.1419	0.0059	0.1117	0.0231	0.1091	0.0026	0.0012	0.0012	0	0
99	0.0553	0.0007	0.0141	0.0263	0	0.0135	0.0007	0.0001	0.0005	0

Total Phosphorus Allocations by Permitted Point Source

Table X.M.3. Total phosphorus wasteload allocations for each individual permitted point source.

Reach	Permit no.	Outfall no.	Name	Allocation (lbs/year)	Allocation (lbs/day)
79	795	1	KOHLER COMPANY POWER SYSTEMS AMERICAS	50	0.1367
10	20443	1	BRILLION WASTEWATER TREATMENT FACILITY	1,081	2.9599
44	20893	1	NEW HOLSTEIN WASTEWATER TREATMENT FACILITY	1,002	2.7427
28	21270	1	HILBERT WASTEWATER TREATMENT FACILITY	218	0.5980
25	21342	2	REEDSVILLE WASTEWATER TREATMENT FACILITY	180	0.4940
15	21831	1	VALDERS WASTEWATER TREATMENT FACILITY	168	0.4591
66	22047	1	WHITELAW WASTEWATER TREATMENT FACILITY	157	0.4306
23	22195	1	ST NAZIANZ WASTEWATER TREATMENT FACILITY	258	0.7056
20	22799	2	CHILTON WASTEWATER TREATMENT FACILITY	517	1.4145
25	22802	1	ROCKLAND SD1 WASTEWATER TREATMENT FACILITY	15	0.0402
48	27618	1	TILLAMOOK WISCONSIN LLC	123	0.3358
8	28142	1	HOLY FAMILY CONVENT WASTEWATER TREATMENT FAC	52	0.1433
26	29025	1	POTTER WASTEWATER TREATMENT FACILITY	66	0.1802
14	36030	1	CLARKS MILLS SANITARY DISTRICT	9.8	0.0269
47	36773	1	MORRISON SANITARY DISTRICT NO 1	74	0.2034
4	42650	1	NEWTON MEATS AND SAUSAGE	0.07	0.0002
10	66257	1	BRIESS MALT AND INGREDIENTS CO	107	0.2926

Total Phosphorus Allocations by MS4

Table X.M.4. Total phosphorus wasteload allocations for each permitted MS4 and the reaches they drain to.

Municipality	Reach	Area (acres)	Allocation (lbs/year)	Allocation (lbs/day)	Reduction from baseline (%)	Reduction from no-controls (%)
City of Manitowoc	10	3,630	119	0.326	50	57
City of Manitowoc	11	273	19	0.052	0	15
City of Manitowoc	36	2,548	31	0.084	77	80
City of Manitowoc	37	819	5	0.014	89	91
City of Manitowoc	63	479	4	0.010	70	74
City of Manitowoc	7	1,163	40	0.109	36	45
City of Manitowoc	78	41	0	0.000	50	58
City of Manitowoc	8	108	2	0.006	59	65
City of Manitowoc	90	539	12	0.033	41	50
City of Manitowoc	91	145	12	0.034	53	60
City of Manitowoc	92	1,753	184	0.505	0	15
City of Manitowoc	99	31	0	0.001	0	15
City of Sheboygan	41	143	6	0.017	0	15
City of Two Rivers	90	687	16	0.043	41	50
Town of Sheboygan	40	61	1	0.003	0	15
Town of Sheboygan	41	774	33	0.090	0	15
Town of Sheboygan	42	1,081	19	0.053	54	61
Town of Sheboygan	97	8	0	0.000	0	15
Town of Taycheedah	43	4,388	0	0.000	81	84

Total Phosphorus Percent Reductions

Table X.M.5. Total phosphorus reductions from baseline.

Reach	Reach description	Percent reduction (%)	Load reduction (lbs/year)
1	Centerville Creek	56.6	505
2	Fischer Creek	61.7	1,219
3	Point Creek	61.6	2,111
4	Pine Creek (East)—mouth to 2.7	65.0	154
5	Pine Creek (East)—mile 2.7 to 6.5	70.4	859
6	Calvin Creek—mouth to mile 5.8	52.5	373
7	Silver Creek—mouth to mile 9.5	35.7	163
8	Silver Lake	59.1	26
9	Silver Creek—mile 5 to headwaters	66.1	919
10	Manitowoc River—mouth to mile 6.3	49.9	556
11	Manitowoc River—mile 6.3 to 12.6	0.0	0
12	Branch River—mouth to mile 12.3	0.0	0
13	Manitowoc River—mile 12.6 to 16.5	74.0	805
14	Manitowoc River—mile 18.8 to 22.2	82.1	1,920
15	Manitowoc River—mile 22.2 to 28.2	80.2	3,243
16	Killsnake River—mouth to mile 3.4	51.8	614
17	South Branch Manitowoc River—mile 3 to 9.2	44.5	195
18	Cedar Creek—mouth to mile 6	75.5	1,461
19	Pine Creek (West)—mouth to mile 5	85.5	4,130
20	South Branch Manitowoc River—mile 9.2 to 14.8	85.7	2,800
21	South Branch Manitowoc River—mile 1.8 to 3	0.0	0
22	South Branch Manitowoc River—mile 18.8 to 29.3	77.9	3,727
23	Mud Creek (South)	57.7	2,809
24	Manitowoc River—mile 28.2 to 31	0.0	0
25	Mud Creek (North)	80.7	4,522
26	North Branch Manitowoc River—mouth to mile 7.3	51.1	958
27	South Branch Manitowoc River—mouth to mile 1.8	25.8	71
28	Unnamed stream	78.0	731
29	North Branch Manitowoc River—mile 7.3 to 11.2	7.3	24
30	Spring Creek—mouth to mile 2.6	0.0	0

(continued)

Reach	Reach description	Percent reduction (%)	Load reduction (lbs/year)
31	Manitowoc River—mile 31 to headwaters	0.0	0
32	Branch River—mile 12.3 to 23.5	8.2	221
33	Unnamed tributary to Branch River	39.7	257
34	Unnamed stream	68.2	1,325
35	Branch River—mile 23.5 to 28.4	60.9	2,371
36	Little Manitowoc River—mouth to mile 4.4	76.6	315
37	Little Manitowoc River—mile 4.4 to headwaters	89.0	884
38	Sevenmile Creek—mile 0.9 to headwaters	67.7	629
39	Sevenmile Creek—mile 6.1 to 6.9	69.6	641
40	Fourmile Creek—mouth to mile 0.4	0.0	0
41	Unnamed tributary to Fourmile Creek	0.0	0
42	Fourmile Creek—mile 0.4 to headwaters	54.1	342
43	South Branch Manitowoc River—mile 29.3 to headwaters	81.1	2,349
44	Pine Creek (West)—mile 5.1 to 6.3	75.3	1,796
45	Killsnake River—mile 3.4 to 8.2	64.0	370
46	Spring Creek—mile 2.6 to headwaters	57.3	718
47	Unnamed tributary to Branch River	53.3	306
48	Unnamed tributary to South Branch Manitowoc River	85.0	933
49	South Branch Manitowoc River—mile 14.8 to 18.8	77.4	1,347
50	Branch River—mile 28.4 to headwaters	36.8	918
51	Black Creek	46.2	218
52	Weyers Lake	0.0	0
53	Calvin Creek—mile 5.8 to Hartlaub Lake	0.0	0
54	Gass Lake	77.1	7
55	Carstens Lake	89.3	221
56	English Lake	35.2	11
57	Bullhead Lake	95.1	43
58	Round Lake	0.0	0
59	Boot Lake	63.0	10
60	Long Lake	95.2	75
61	Becker Lake	82.8	81
62	Grass Lake	44.9	105

(continued)

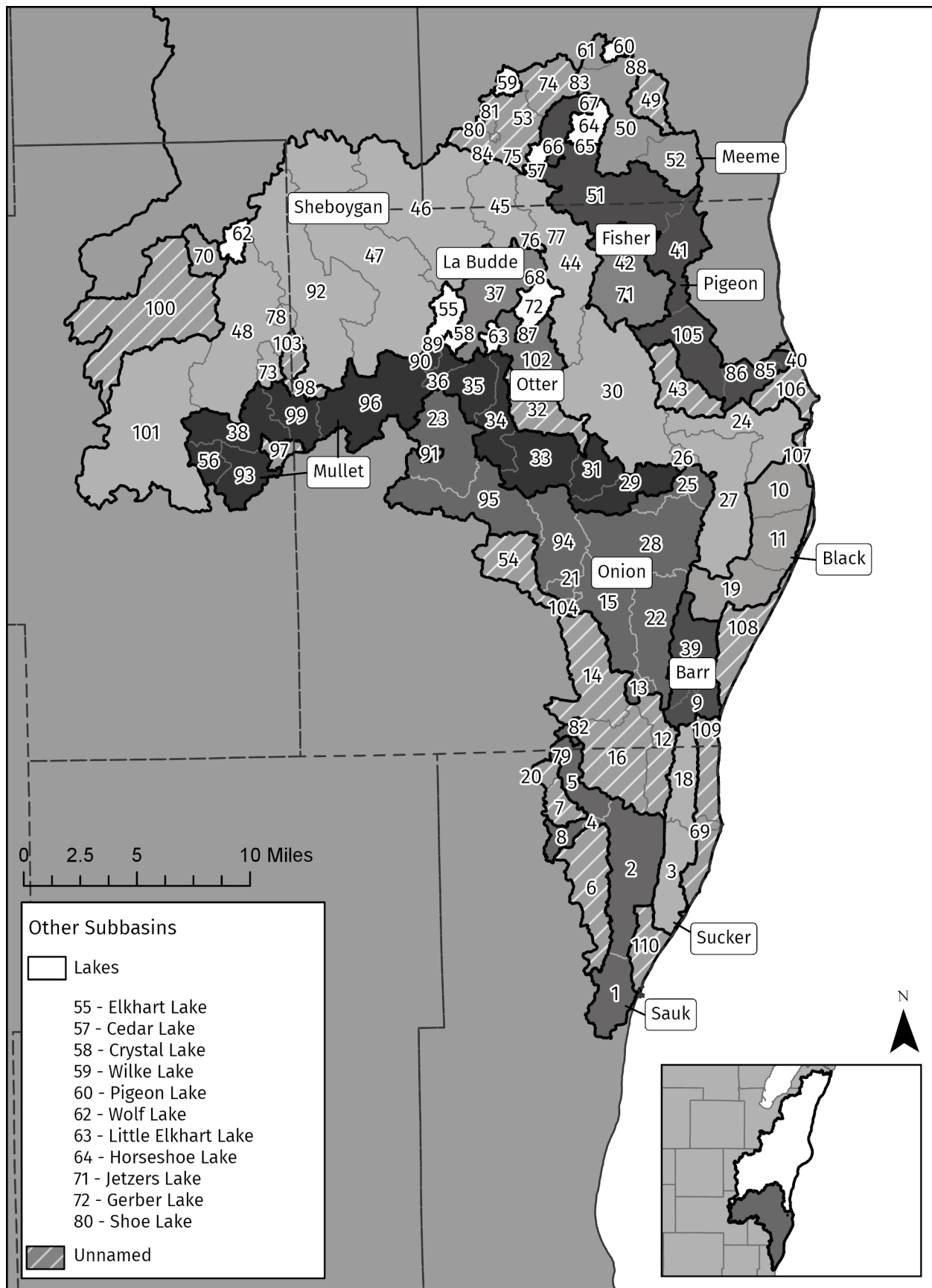
Reach	Reach description	Percent reduction (%)	Load reduction (lbs/year)
63	Silver Creek—mile 5 to 9.3	69.6	1,408
64	Kellners Lake	0.0	0
65	Schisel Lake	89.7	130
66	Hempton Lake	61.0	747
67	Unnamed lakes/ponds	87.8	58
68	Cedar Creek—mile 8.4 to Mud Lake	83.2	277
69	Unnamed lakes/ponds	0.0	0
70	Unnamed lakes/ponds	0.0	0
71	Lake Oswald	0.0	0
72	Glonski Lake	64.9	19
73	Kasbaum Lake	0.0	0
74	Unnamed lakes/ponds	66.5	12
75	Eaton Twin Lakes (South)	0.0	0
76	Eaton Twin Lakes (North)	33.3	6
77	Cedar Creek—mile 6 to 8.4	86.7	472
78	Vetting Lake	50.1	23
79	Unnamed tributary to Lake Michigan	44.2	60
80	Bergene Lake	91.5	836
81	Manitowoc River—mile 16.5 to 18.8	68.1	354
82	Unnamed tributary to South Branch Manitowoc River	85.3	583
83	Stony Brook	80.9	2,048
84	Unnamed tributary to Killsnake River	74.0	567
85	Killsnake River—mile 8.2 to headwaters	74.9	3,778
86	North Branch Manitowoc River—mile 11.2 to headwaters	67.5	2,580
87	Unnamed tributary to Pine Creek	66.4	289
89	Unnamed tributary to Branch River	0.0	0
90	Unnamed tributary to Lake Michigan	41.3	47
91	No waterbodies	52.9	6
92	Unnamed	0.0	0
93	Unnamed	64.0	156
94	No waterbodies	0.0	0
95	Unnamed	23.4	77
96	Unnamed tributary to Lake Michigan	46.6	106

(continued)

Reach	Reach description	Percent reduction (%)	Load reduction (lbs/year)
97	Unnamed lake/pond	0.0	0
98	No waterbodies	63.1	32
99	No waterbodies	0.0	0

Sheboygan River Basin Region

DRAFT



Total Phosphorus Annual Allocations

Table X.S.1. Annual total phosphorus load allocations by TMDL reach. Some columns names have been abbreviated to fit: Load cap. = loading capacity, Res. cap. = reserve capacity, Alloc. = load allocation, BG = background load, Agric. = agriculture allocation, NPU = non-permitted urban allocation, Wasteload = total wasteload allocation (general permits, MS4s, individual permits), GP = general permits, Ind. perm. = individual permits.

Rch	Load cap. (lbs/year)	Res. cap. (lbs/year)	Alloc. (lbs/year)	BG (lbs/year)	Agric. (lbs/year)	NPU (lbs/year)	Wasteload (lbs/year)	GP (lbs/year)	MS4 (lbs/year)	Ind. perm. (lbs/year)
1	892	37	689	159	528	27	141	7.3	134	0
2	1,569	58	1,089	411	1,082	7	12	12	0.13	0
3	829	33	613	176	599	14	6.5	6.5	0	0
4	36	1.4	27	7.6	26	0.06	0.28	0.28	0	0
5	556	21	389	143	388	0.75	4.1	4.1	0	0
6	1,136	45	844	238	839	5.3	9	9	0	0
7	271	11	199	59	195	4.3	2.1	2.1	0	0
8	232	9.5	179	42	174	4.9	1.9	1.9	0	0
9	486	20	375	87	200	19	161	4	0	157
10	1,009	39	739	222	617	2.9	127	7.9	119	0.03
11	933	34	641	252	616	11	20	6.8	13	0
12	1,220	60	1,130	18	278	0	864	12	0	852
13	218	9.2	174	33	173	0.14	1.8	1.8	0	0
14	1,940	66	1,240	621	1,237	2.6	13	13	0	0
15	1,481	65	1,216	187	1,208	8	13	13	0	0
16	1,971	79	1,487	389	1,482	5.4	16	16	0	0
18	675	24	443	204	432	11	4.7	4.7	0	0
19	1,216	49	925	232	711	16	208	9.8	0	198
20	154	5.2	98	49	77	1.3	21	1	0	20
21	169	5.3	100	63	97	3	1.1	1.1	0	0
22	1,642	75	1,413	139	1,341	9.9	77	15	0	62
23	1,790	64	1,212	211	1,160	53	13	13	0	0
24	3,165	74	1,387	161	839	35	528	15	513	0
25	644	26	495	118	478	5.1	17	5.3	11	0
26	26,200	4.9	93	8.2	0.3	4.2	89	0.98	88	0
27	15,624	335	6,290	457	5,943	89	325	67	206	52
28	2,417	110	2,063	222	2,056	7.4	22	22	0.01	0
29	1,195	54	1,017	112	992	11	25	11	14	0

(continued)

Rch	Load cap. (lbs/year)	Res. cap. (lbs/year)	Alloc. (lbs/year)	BG (lbs/year)	Agric. (lbs/year)	NPU (lbs/year)	Wasteload (lbs/year)	GP (lbs/year)	MS4 (lbs/year)	Ind. perm. (lbs/year)
30	1,210	40	756	406	605	8.1	152	8	4.5	140
31	960	45	839	67	838	0.54	8.9	8.9	0	0
32	1,601	73	1,374	140	1,336	37	15	15	0	0
33	1,879	82	1,541	239	1,482	59	16	16	0	0
34	2,209	100	1,878	212	373	81	1,443	20	0	1,423
35	1,630	70	1,317	229	1,235	82	14	14	0	0
36	603	5.2	97	43	88	9.1	1	1	0	0
37	2,672	109	2,058	269	1,965	93	22	22	0	0
38	1,361	34	648	145	639	9.6	6.9	6.9	0	0
39	978	43	802	125	781	21	8.5	8.5	0	0
40	148	2.8	52	19	31	0	21	0.56	21	0
41	1,339	59	1,109	159	783	3.5	334	12	14	308
42	1,710	70	1,315	311	1,304	4.7	20	14	6.2	0
43	1,010	44	831	126	815	8.7	16	8.8	7	0
44	2,600	93	1,747	741	1,449	11	306	19	0	287
45	2,033	41	772	141	723	48	8.2	8.2	0	0
46	10,191	476	8,947	549	4,370	219	4,454	95	0	4,359
47	4,354	190	3,567	559	3,530	36	38	38	0	0
48	2,937	136	2,542	232	2,417	43	109	27	0	82
49	620	27	503	84	501	2.1	5.4	5.4	0	0
50	1,982	61	1,145	763	1,139	6.5	12	12	0	0
51	3,885	144	2,705	1,008	2,696	8	29	29	0	0
52	912	38	706	162	702	3.5	7.5	7.5	0	0
53	1,261	40	755	176	741	14	8	8	0	0
54	943	41	772	122	765	6.3	8.2	8.2	0	0
55	300	8.6	163	127	99	63	1.7	1.7	0	0
56	554	25	462	63	459	2.7	4.9	4.9	0	0
57	113	2.8	50	60	29	21	0.56	0.56	0	0
58	56	0.74	13	42	0	13	0.15	0.15	0	0
59	194	8	141	43	127	15	1.6	1.6	0	0
60	68	1.4	26	40	11	15	0.28	0.28	0	0
61	417	16	308	89	305	2.8	3.3	3.3	0	0

(continued)

Rch	Load cap. (lbs/year)	Res. cap. (lbs/year)	Alloc. (lbs/year)	BG (lbs/year)	Agric. (lbs/year)	NPU (lbs/year)	Wasteload (lbs/year)	GP (lbs/year)	MS4 (lbs/year)	Ind. perm. (lbs/year)
62	136	5	95	35	88	6.6	1	1	0	0
63	57	0.88	17	39	0.19	16	0.18	0.18	0	0
64	213	9	170	33	166	3.6	1.8	1.8	0	0
65	19	0.13	2.4	2.1	2.4	0	0.03	0.03	0	0
66	79	1.7	32	46	32	0	0.34	0.34	0	0
67	84	2.2	41	40	40	1	0.44	0.44	0	0
68	30	0.3	5.7	1.2	5.5	0.11	0.06	0.06	0	0
69	83	0.91	17	33	16	0.7	0.18	0.18	0	0
70	408	18	336	22	331	4.6	3.6	3.6	0	0
71	12	0.19	3.5	8.4	3.3	0.21	0.04	0.04	0	0
72	314	8.4	158	146	158	0.5	1.7	1.7	0	0
73	278	11	212	52	211	0.54	2.3	2.3	0	0
74	744	34	637	66	631	6.3	6.8	6.8	0	0
75	71	1.6	30	14	29	0.48	0.32	0.32	0	0
76	61	0.54	10	5.8	9.6	0.46	0.11	0.11	0	0
77	20	0.03	0.53	3.3	0	0.53	0.01	0.01	0	0
78	71	1.3	24	7.3	20	4.1	0.26	0.26	0	0
79	26	0.68	13	12	12	0.26	0.14	0.14	0	0
80	32	0.12	2.2	4.4	1.9	0.31	0.02	0.02	0	0
81	114	2.6	50	12	49	1.2	0.53	0.53	0	0
82	95	3.2	61	30	61	0.1	0.65	0.65	0	0
83	46	0.19	3.6	6	3.4	0.15	0.04	0.04	0	0
84	134	0	0	2.9	0	0	0	0	0	0
85	17	0.46	8.6	3.4	0	0	8.7	0.09	8.6	0
86	704	20	385	100	226	11	152	4.1	140	8.4
87	48	0.39	7.3	3.2	6.6	0.71	0.08	0.08	0	0
88	17	0.42	8	8.3	8	0	0.08	0.08	0	0
89	199	2.9	55	10	46	9.2	0.59	0.59	0	0
90	24	0.41	7.6	0.83	0	7.6	0.08	0.08	0	0
91	102	2.8	52	24	52	0	0.55	0.55	0	0
92	729	18	335	373	333	2.1	3.6	3.6	0	0
93	1,132	32	601	104	588	13	6.4	6.4	0	0

(continued)

Rch	Load cap. (lbs/year)	Res. cap. (lbs/year)	Alloc. (lbs/year)	BG (lbs/year)	Agric. (lbs/year)	NPU (lbs/year)	Wasteload (lbs/year)	GP (lbs/year)	MS4 (lbs/year)	Ind. perm. (lbs/year)
94	1,327	55	1,028	233	972	7.7	59	11	0	48
95	1,832	78	1,470	268	1,453	17	16	16	0	0
96	3,653	60	1,130	351	1,086	44	12	12	0	0
97	419	19	363	32	64	4.3	298	3.9	0	295
98	217	6.3	119	19	115	3.3	1.3	1.3	0	0
99	1,051	29	544	81	528	16	5.8	5.8	0	0
100	3,427	136	2,564	699	2,446	23	123	27	2.9	93
101	4,101	176	3,305	585	3,273	32	35	35	0	0
102	4,305	177	3,326	194	3,303	23	35	35	0	0
103	227	9	170	47	169	0.42	1.8	1.8	0	0
104	100	3.4	64	32	20	2	43	0.68	0	42
105	1,804	79	1,479	231	1,437	22	36	16	20	0
106	1,025	20	374	23	0	0	378	4	374	0
107	184	5	93	2.9	0	0.41	94	0.99	93	0
108	1,163	50	894	209	799	92	13	10	2.6	0
109	1,009	34	635	333	623	13	6.8	6.8	0	0
110	556	26	495	29	391	28	82	5.3	77	0

Total Phosphorus Daily Allocations

Table X.S.2. Daily total phosphorus load allocations by TMDL reach. Some columns names have been abbreviated to fit: Load cap. = loading capacity, Res. cap. = reserve capacity, Alloc. = load allocation, BG = background load, Agric. = agriculture allocation, NPU = non-permitted urban allocation, Wasteload = total wasteload allocation (general permits, MS4s, individual permits), GP = general permits, Ind. perm. = individual permits.

Rch	Load cap. (lbs/day)	Res. cap. (lbs/day)	Alloc. (lbs/day)	BG (lbs/day)	Agric. (lbs/day)	NPU (lbs/day)	Wasteload (lbs/day)	GP (lbs/day)	MS4 (lbs/day)	Ind. perm. (lbs/day)
1	2.4434	0.1003	1.8863	0.4367	1.4461	0.0732	0.3871	0.0201	0.3670	0
2	4.2961	0.1586	2.9814	1.1244	2.9620	0.0190	0.0321	0.0317	0.0004	0
3	2.2690	0.0893	1.6797	0.4821	1.6405	0.0391	0.0179	0.0179	0	0
4	0.0983	0.0039	0.0727	0.0209	0.0725	0.0002	0.0008	0.0008	0	0
5	1.5233	0.0566	1.0645	0.3909	1.0625	0.0020	0.0113	0.0113	0	0
6	3.1106	0.1229	2.3111	0.6520	2.2967	0.0144	0.0246	0.0246	0	0
7	0.7428	0.0291	0.5462	0.1618	0.5345	0.0117	0.0058	0.0058	0	0
8	0.6361	0.0260	0.4894	0.1155	0.4761	0.0133	0.0052	0.0052	0	0
9	1.3320	0.0547	1.0281	0.2383	0.5463	0.0516	0.4411	0.0109	0	0.4302
10	2.7621	0.1077	2.0246	0.6083	1.6902	0.0078	0.3481	0.0215	0.3265	0.0001
11	2.5555	0.0933	1.7546	0.6889	1.6876	0.0305	0.0552	0.0187	0.0365	0
12	3.3409	0.1646	3.0939	0.0496	0.7617	0	2.3651	0.0329	0	2.3321
13	0.5957	0.0253	0.4751	0.0902	0.4747	0.0004	0.0051	0.0051	0	0
14	5.3127	0.1806	3.3946	1.7015	3.3874	0.0072	0.0361	0.0361	0	0
15	4.0557	0.1771	3.3302	0.5129	3.3082	0.0219	0.0354	0.0354	0	0
16	5.3965	0.2166	4.0720	1.0646	4.0572	0.0148	0.0433	0.0433	0	0
18	1.8492	0.0645	1.2135	0.5582	1.1823	0.0312	0.0129	0.0129	0	0
19	3.3292	0.1348	2.5333	0.6342	1.9456	0.0448	0.5699	0.0270	0	0.5429
20	0.4204	0.0143	0.2691	0.1341	0.2115	0.0035	0.0569	0.0029	0	0.0541
21	0.4636	0.0145	0.2725	0.1737	0.2643	0.0082	0.0029	0.0029	0	0
22	4.4949	0.2057	3.8679	0.3801	3.6707	0.0270	0.2113	0.0411	0	0.1702
23	4.9014	0.1765	3.3188	0.5775	3.1749	0.1438	0.0353	0.0353	0	0
24	8.6643	0.2021	3.7987	0.4402	2.2974	0.0962	1.4455	0.0404	1.4051	0
25	1.7628	0.0721	1.3547	0.3217	1.3097	0.0141	0.0453	0.0144	0.0309	0
26	71.7314	0.0135	0.2535	0.0223	0.0008	0.0115	0.2438	0.0027	0.2411	0
27	42.7780	0.9161	17.2225	1.2516	16.2703	0.2446	0.8908	0.1832	0.5639	0.1437
28	6.6171	0.3005	5.6494	0.6070	5.6292	0.0202	0.0601	0.0601	0	0
29	3.2713	0.1482	2.7855	0.3080	2.7155	0.0313	0.0683	0.0296	0.0387	0
30	3.3131	0.1101	2.0705	1.1104	1.6553	0.0221	0.4167	0.0220	0.0122	0.3824

(continued)

Rch	Load cap. (lbs/day)	Res. cap. (lbs/day)	Alloc. (lbs/day)	BG (lbs/day)	Agric. (lbs/day)	NPU (lbs/day)	Wasteload (lbs/day)	GP (lbs/day)	MS4 (lbs/day)	Ind. perm. (lbs/day)
31	2.6272	0.1222	2.2969	0.1837	2.2954	0.0015	0.0244	0.0244	0	0
32	4.3827	0.2000	3.7606	0.3820	3.6582	0.1025	0.0400	0.0400	0	0
33	5.1441	0.2245	4.2200	0.6547	4.0588	0.1612	0.0449	0.0449	0	0
34	6.0479	0.2734	5.1407	0.5791	1.0225	0.2217	3.9512	0.0547	0	3.8965
35	4.4636	0.1918	3.6066	0.6268	3.3809	0.2257	0.0384	0.0384	0	0
36	1.6516	0.0141	0.2652	0.1183	0.2402	0.0250	0.0028	0.0028	0	0
37	7.3169	0.2998	5.6359	0.7361	5.3808	0.2551	0.0600	0.0600	0	0
38	3.7274	0.0944	1.7749	0.3959	1.7484	0.0264	0.0189	0.0189	0	0
39	2.6775	0.1168	2.1955	0.3419	2.1390	0.0565	0.0234	0.0234	0	0
40	0.4058	0.0076	0.1431	0.0508	0.0858	0	0.0587	0.0015	0.0572	0
41	3.6653	0.1614	3.0350	0.4366	2.1433	0.0097	0.9143	0.0323	0.0396	0.8424
42	4.6820	0.1915	3.6002	0.8520	3.5704	0.0128	0.0553	0.0383	0.0170	0
43	2.7644	0.1210	2.2739	0.3454	2.2310	0.0237	0.0433	0.0242	0.0191	0
44	7.1172	0.2544	4.7836	2.0283	3.9667	0.0298	0.8379	0.0509	0	0.7870
45	5.5658	0.1124	2.1129	0.3856	1.9804	0.1325	0.0225	0.0225	0	0
46	27.9020	1.3030	24.4965	1.5027	11.9636	0.5988	12.1947	0.2606	0	11.9341
47	11.9200	0.5194	9.7650	1.5317	9.6661	0.0989	0.1039	0.1039	0	0
48	8.0409	0.3727	6.9589	0.6347	6.6179	0.1171	0.2984	0.0745	0	0.2239
49	1.6965	0.0733	1.3781	0.2304	1.3724	0.0057	0.0147	0.0147	0	0
50	5.4253	0.1668	3.1357	2.0895	3.1179	0.0178	0.0334	0.0334	0	0
51	10.6360	0.3939	7.4046	2.7588	7.3827	0.0219	0.0788	0.0788	0	0
52	2.4982	0.1028	1.9325	0.4423	1.9229	0.0096	0.0206	0.0206	0	0
53	3.4531	0.1099	2.0669	0.4826	2.0281	0.0388	0.0220	0.0220	0	0
54	2.5807	0.1124	2.1127	0.3331	2.0955	0.0172	0.0225	0.0225	0	0
55	0.8203	0.0237	0.4449	0.3470	0.2718	0.1731	0.0047	0.0047	0	0
56	1.5170	0.0672	1.2642	0.1721	1.2568	0.0075	0.0134	0.0134	0	0
57	0.3090	0.0077	0.1364	0.1634	0.0787	0.0577	0.0015	0.0015	0	0
58	0.1545	0.0020	0.0363	0.1158	0	0.0363	0.0004	0.0004	0	0
59	0.5312	0.0220	0.3872	0.1176	0.3469	0.0403	0.0044	0.0044	0	0
60	0.1853	0.0038	0.0720	0.1087	0.0308	0.0412	0.0008	0.0008	0	0
61	1.1404	0.0448	0.8430	0.2436	0.8354	0.0076	0.0090	0.0090	0	0
62	0.3722	0.0138	0.2598	0.0958	0.2419	0.0180	0.0028	0.0028	0	0

(continued)

Rch	Load cap. (lbs/day)	Res. cap. (lbs/day)	Alloc. (lbs/day)	BG (lbs/day)	Agric. (lbs/day)	NPU (lbs/day)	Wasteload (lbs/day)	GP (lbs/day)	MS4 (lbs/day)	Ind. perm. (lbs/day)
63	0.1557	0.0024	0.0455	0.1074	0.0005	0.0449	0.0005	0.0005	0	0
64	0.5837	0.0247	0.4650	0.0890	0.4552	0.0098	0.0049	0.0049	0	0
65	0.0530	0.0004	0.0067	0.0058	0.0067	0	0.0001	0.0001	0	0
66	0.2176	0.0046	0.0870	0.1251	0.0870	0	0.0009	0.0009	0	0
67	0.2287	0.0060	0.1122	0.1093	0.1095	0.0027	0.0012	0.0012	0	0
68	0.0818	0.0008	0.0155	0.0034	0.0152	0.0003	0.0002	0.0002	0	0
69	0.2267	0.0025	0.0471	0.0896	0.0452	0.0019	0.0005	0.0005	0	0
70	1.1163	0.0489	0.9186	0.0595	0.9059	0.0127	0.0098	0.0098	0	0
71	0.0332	0.0005	0.0097	0.0229	0.0091	0.0006	0.0001	0.0001	0	0
72	0.8601	0.0231	0.4337	0.3988	0.4323	0.0014	0.0046	0.0046	0	0
73	0.7604	0.0309	0.5800	0.1433	0.5786	0.0015	0.0062	0.0062	0	0
74	2.0373	0.0928	1.7450	0.1809	1.7278	0.0172	0.0186	0.0186	0	0
75	0.1954	0.0043	0.0814	0.0385	0.0801	0.0013	0.0009	0.0009	0	0
76	0.1665	0.0015	0.0276	0.0158	0.0264	0.0013	0.0003	0.0003	0	0
77	0.0537	0.0001	0.0014	0.0091	0	0.0014	0	0	0	0
78	0.1934	0.0035	0.0664	0.0199	0.0552	0.0112	0.0007	0.0007	0	0
79	0.0700	0.0019	0.0349	0.0329	0.0342	0.0007	0.0004	0.0004	0	0
80	0.0869	0.0003	0.0060	0.0121	0.0051	0.0009	0.0001	0.0001	0	0
81	0.3109	0.0073	0.1364	0.0319	0.1332	0.0032	0.0015	0.0015	0	0
82	0.2592	0.0089	0.1665	0.0821	0.1662	0.0003	0.0018	0.0018	0	0
83	0.1251	0.0005	0.0098	0.0166	0.0094	0.0004	0.0001	0.0001	0	0
84	0.3671	0	0	0.0078	0	0	0	0	0	0
85	0.0465	0.0012	0.0235	0.0094	0	0	0.0237	0.0002	0.0235	0
86	1.9286	0.0561	1.0538	0.2727	0.6182	0.0307	0.4162	0.0112	0.3820	0.0230
87	0.1327	0.0011	0.0200	0.0088	0.0180	0.0019	0.0002	0.0002	0	0
88	0.0459	0.0012	0.0218	0.0227	0.0218	0	0.0002	0.0002	0	0
89	0.5454	0.0081	0.1514	0.0287	0.1263	0.0251	0.0016	0.0016	0	0
90	0.0670	0.0011	0.0209	0.0023	0	0.0209	0.0002	0.0002	0	0
91	0.2780	0.0075	0.1419	0.0663	0.1419	0	0.0015	0.0015	0	0
92	1.9971	0.0488	0.9167	1.0219	0.9109	0.0058	0.0098	0.0098	0	0
93	3.0989	0.0875	1.6451	0.2856	1.6087	0.0365	0.0175	0.0175	0	0
94	3.6326	0.1497	2.8139	0.6391	2.6619	0.0212	0.1608	0.0299	0	0.1309
95	5.0144	0.2141	4.0249	0.7326	3.9779	0.0471	0.0428	0.0428	0	0

(continued)

Rch	Load cap. (lbs/day)	Res. cap. (lbs/day)	Alloc. (lbs/day)	BG (lbs/day)	Agric. (lbs/day)	NPU (lbs/day)	Wasteload (lbs/day)	GP (lbs/day)	MS4 (lbs/day)	Ind. perm. (lbs/day)
96	10.0006	0.1646	3.0941	0.9603	2.9744	0.1196	0.0329	0.0329	0	0
97	1.1467	0.0529	0.9944	0.0888	0.1762	0.0116	0.8171	0.0106	0	0.8066
98	0.5951	0.0173	0.3245	0.0507	0.3153	0.0091	0.0035	0.0035	0	0
99	2.8769	0.0793	1.4905	0.2216	1.4469	0.0436	0.0159	0.0159	0	0
100	9.3832	0.3735	7.0212	1.9138	6.6969	0.0625	0.3365	0.0747	0.0081	0.2538
101	11.2283	0.4813	9.0493	1.6014	8.9606	0.0886	0.0963	0.0963	0	0
102	11.7876	0.4843	9.1058	0.5310	9.0424	0.0634	0.0969	0.0969	0	0
103	0.6220	0.0247	0.4643	0.1280	0.4632	0.0011	0.0049	0.0049	0	0
104	0.2739	0.0093	0.1752	0.0875	0.0549	0.0055	0.1167	0.0019	0	0.1148
105	4.9383	0.2153	4.0485	0.6314	3.9346	0.0595	0.0975	0.0431	0.0544	0
106	2.8064	0.0545	1.0244	0.0642	0	0	1.0353	0.0109	1.0244	0
107	0.5051	0.0136	0.2556	0.0079	0	0.0011	0.2572	0.0027	0.2545	0
108	3.1848	0.1377	2.4477	0.5718	2.1889	0.2517	0.0347	0.0275	0.0072	0
109	2.7613	0.0925	1.7395	0.9108	1.7050	0.0345	0.0185	0.0185	0	0
110	1.5235	0.0721	1.3564	0.0806	1.0704	0.0758	0.2247	0.0144	0.2102	0

Total Phosphorus Allocations by Permitted Point Source

Table X.S.3. Total phosphorus wasteload allocations for each individual permitted point source.

Reach	Permit no.	Outfall no.	Name	Allocation (lbs/year)	Allocation (lbs/day)
12	817	4	LAKESIDE FOODS, INC. - BELGIUM PLANT	99	0.2701
10	1589	14	WISCONSIN POWER AND LIGHT EDGEWATER GEN. STATION	0.03	0.0001
44	1759	2	JOHNSONVILLE LLC	247	0.6761
44	1759	3	JOHNSONVILLE LLC	0.42	0.0011
46	20141	1	KIEL WASTEWATER TREATMENT FACILITY	4,359	11.9339
9	20711	1	CEDAR GROVE WASTEWATER TRTMNT FACIL	157	0.4301
41	21679	1	HOWARDS GROVE WASTEWATER TRTMT FAC	308	0.8424
19	22233	1	OOSTBURG WASTEWATER TREATMENT PLANT	198	0.5429
94	22471	1	WALDO WASTEWATER UTILITY	48	0.1309
12	23353	1	BELGIUM WASTEWATER TREATMENT FACILITY	753	2.0620
48	26867	1	ST CLOUD VILLAGE UTILITY COMMISSION	82	0.2254
30	27456	1	BEMIS MANUFACTURING COMPANY - PLANT D	63	0.1735
44	29335	4	LAKELAND UNIVERSITY	40	0.1105
34	30031	1	PLYMOUTH UTILITIES WWTF	1,325	3.6290
22	31577	1	GIBBSVILLE SANITARY DISTRICT	62	0.1702
100	35963	1	MOUNT CALVARY WASTEWATER TREATMENT FACILITY	93	0.2537
104	36811	1	ONION RIVER WASTEWATER COMMISSION	42	0.1148
34	41904	1	SARTORI COMPANY-WEST MAIN BUILDING	98	0.2675
97	50521	3	BAKER CHEESE FACTORY INC.	295	0.8066
20	51535	11	CEDAR VALLEY CHEESE, INC	9	0.0245
86	66681	101	PLASTICS ENGINEERING COMPANY	9.8	0.0267
27	66699	1	POLY VINYL COMPANY INC	56	0.1536

Total Phosphorus Allocations by MS4

Table X.S.4. Total phosphorus wasteload allocations for each permitted MS4 and the reaches they drain to.

Municipality	Reach	Area (acres)	Allocation (lbs/year)	Allocation (lbs/day)	Reduction from baseline (%)	Reduction from no-controls (%)
City of Port Washington	1	2,224	134	0.367	69	73
City of Port Washington	110	824	77	0.210	62	67
City of Port Washington	2	14	0	0.000	90	91
City of Sheboygan	10	1,964	72	0.198	57	63
City of Sheboygan	106	2,374	337	0.922	0	15
City of Sheboygan	107	599	86	0.234	0	15
City of Sheboygan	108	121	0	0.001	0	20
City of Sheboygan	11	510	2	0.005	73	77
City of Sheboygan	24	3,123	309	0.846	0	15
City of Sheboygan	27	113	3	0.008	0	15
City of Sheboygan	40	144	7	0.018	0	15
City of Sheboygan	86	680	43	0.118	0	15
City of Sheboygan Falls	24	224	22	0.061	0	15
City of Sheboygan Falls	25	621	7	0.019	70	74
City of Sheboygan Falls	26	568	88	0.241	0	15
City of Sheboygan Falls	27	698	18	0.049	0	15
City of Sheboygan Falls	28	7	0	0.000	79	82
City of Sheboygan Falls	29	284	14	0.039	50	58
City of Sheboygan Falls	30	1,139	4	0.012	94	95
Town of Sheboygan	10	7	0	0.001	57	63
Town of Sheboygan	105	1,497	15	0.041	63	68
Town of Sheboygan	106	264	37	0.102	0	15
Town of Sheboygan	24	832	82	0.225	0	15
Town of Sheboygan	27	61	2	0.004	0	15
Town of Sheboygan	40	308	14	0.039	0	15
Town of Sheboygan	43	405	5	0.013	75	79
Town of Sheboygan	86	1,493	94	0.258	0	15
Town of Taycheedah	100	6,423	3	0.008	84	87
Town of Wilson	10	1,262	47	0.127	57	63
Town of Wilson	107	51	7	0.020	0	15

(continued)

Municipality	Reach	Area (acres)	Allocation (lbs/year)	Allocation (lbs/day)	Reduction from baseline (%)	Reduction from no-controls (%)
Town of Wilson	108	714	2	0.006	0	20
Town of Wilson	11	2,953	11	0.031	73	77
Town of Wilson	24	32	3	0.009	0	15
Town of Wilson	25	390	4	0.012	70	74
Town of Wilson	27	4,923	125	0.342	0	15
Town of Wilson	28	2	0	0.000	79	82
Village of Howards Grove	105	472	5	0.013	63	68
Village of Howards Grove	41	562	14	0.040	77	81
Village of Howards Grove	42	406	6	0.017	85	87
Village of Kohler	24	974	96	0.264	0	15
Village of Kohler	25	22	0	0.001	70	74
Village of Kohler	27	2,311	59	0.161	0	15
Village of Kohler	43	196	2	0.006	75	79
Village of Kohler	86	38	2	0.007	0	15

Total Phosphorus Percent Reductions

Table X.S.5. Total phosphorus reductions from baseline.

Reach	Reach description	Percent reduction (%)	Load reduction (lbs/year)
1	Sauk Creek—mouth to 2.3	68.6	682
2	Sauk Creek—mile 2.3 to 11.5	89.9	4,393
3	Sucker Creek—mouth to mile 5.9	86.1	1,720
4	Sauk Creek—miles 11.5 to headwaters	94.6	211
5	Unnamed stream	91.7	1,960
6	Unnamed tributary to Sauk Creek	86.0	2,360
7	Unnamed tributary to Sauk Creek	75.1	273
8	Sauk Creek—headwaters to mile 2.7	86.2	507
9	Barr Creek—mouth to mile 2	87.1	1,151
10	Black River—mouth to mile 1.2	57.0	444
11	Black River—mile 1.2 to 5	73.1	788
12	Unnamed tributary to Onion River	60.8	794
13	Onion River—mile 16.9 to 18.9	74.8	234
14	Unnamed tributary to Onion River	91.3	5,934
15	Onion River—mile 18.9 to 26.5	74.3	1,591
16	Unnamed stream	86.2	4,204
18	Sucker Creek—mile 5.9 to headwaters	89.9	1,784
19	Black River—mile 5 to headwaters	85.2	2,419
20	Unnamed stream	93.2	613
21	Onion River—mile 26.9 to 27.8	83.7	232
22	Onion River—mile 8.6 to 16.9	69.0	1,428
23	Onion River—mile 36.7 to headwaters	0.0	0
24	Sheboygan River—mouth to mile 3.4	0.0	0
25	Onion River—mouth to mile 3.1	69.6	514
26	Sheboygan River—mile 67.6 to 77.2	0.0	0
27	Sheboygan River—mile 3.4 to 13	0.0	0
28	Onion River—mile 3.1 to 8.6	79.3	3,581
29	Mullet River—mouth to mile 5.5	50.2	465
30	Sheboygan River—mile 13 to 15.1	94.2	5,613
31	Mullet River—mile 5.5 to 8.5	71.0	933

(continued)

Reach	Reach description	Percent reduction (%)	Load reduction (lbs/year)
32	Unnamed tributary to Mullet River	68.7	1,364
33	Mullet River—mile 8.5 to 13.1	70.1	1,640
34	Mullet River—mile 13.1 to 17.7	77.5	2,935
35	Mullet River—mile 17.7 to 20.6	38.2	369
36	Mullet River—mile 20.6 to 22.5	0.0	0
37	La Budde Creek	0.0	0
38	Mullet River—mile 33.6 to 35.7	0.0	0
39	Barr Creek—mile 2 to headwaters	80.8	1,528
40	Pigeon River—mouth to 0.9	0.0	0
41	Pigeon River—mile 10.9 to 18	77.4	1,722
42	Fisher Creek	85.0	3,393
43	Unnamed tributary to Pigeon River	74.9	1,124
44	Sheboygan River—mile 15.1 to 29	84.0	4,174
45	Sheboygan River—mile 29 to 40	0.0	0
46	Sheboygan River—mile 40 to 43.6	0.0	0
47	Sheboygan River—mile 43.6 to 54.1	43.8	1,263
48	Sheboygan River—mile 56 to 62	0.0	8
49	Unnamed tributary to Meeme River	70.7	552
50	Meeme River—headwaters to mile 7.6	83.7	2,669
51	Pigeon River—mile 18 to Little Pigeon Lake	76.7	4,047
52	Meeme River—mile 11.7 to mouth	78.2	1,146
53	Unnamed tributary to Sheboygan River	0.0	0
54	Unnamed tributary to Onion River	77.6	1,214
55	Elkhart Lake	6.0	5
56	Mullet Lake	63.4	363
57	Cedar Lake	0.0	1
58	Crystal Lake	0.0	0
59	Wilke Lake	0.0	4
60	Pigeon Lake	6.7	1
61	Little Pigeon Lake	24.5	45
62	Wolf Lake	64.7	79
63	Little Elkhart Lake	7.2	1

(continued)

Reach	Reach description	Percent reduction (%)	Load reduction (lbs/year)
64	Horseshoe Lake	29.6	32
65	West Lake	0.0	0
66	Scout Lake	71.3	36
67	Unnamed lakes/ponds	68.3	40
68	Unnamed lake/pond	0.0	0
69	Unnamed lakes/ponds	0.0	0
70	Gitners Lake	0.0	0
71	Jetzers Lake	82.4	8
72	Gerber Lake	87.7	510
73	Mischos Pond	83.3	480
74	Sy Lake	12.8	42
75	Unnamed lake/pond	0.0	0
76	Unnamed lake/pond	0.0	0
77	Dollar Lake	0.0	0
78	Paulys Lake	0.0	0
79	Ludowissi Lake	92.7	74
80	Shoe Lake	0.0	0
81	Graf Lake	0.0	0
82	Grasser Lake	89.0	224
83	Spring Lake	0.0	0
84	Prueder Lake	0.0	0
85	Sheboygan Quarry	0.0	0
86	Pigeon River—mile 0.9 to 5	0.0	0
87	Bullet Lake	0.0	0
88	Unnamed lake/pond	92.8	47
89	Mullet River—mile 22.5 to 23.7	0.0	0
90	Mullet River—mile 23.7 to 23.9	0.0	0
91	Unnamed lake/pond	0.0	0
92	Sheboygan River—mile 54.1 to 56	90.5	1,448
93	Mullet River—mile 33.6 to Mullet Lake	0.0	0
94	Onion River—mile 27.8 to 30.7	84.3	2,507
95	Onion River—mile 30.7 to 36.7	29.8	283
96	Mullet River—mile 23.9 to to 30.9	0.0	0

(continued)

Reach	Reach description	Percent reduction (%)	Load reduction (lbs/year)
97	Unnamed tributary to Mullet River	61.1	258
98	Unnamed tributary to Mullet River	0.0	0
99	Mullet River—mile 30.9 to 33.6	0.0	0
100	Unnamed tributary to Sheboygan River	84.4	6,304
101	Sheboygan River—mile 67 to headwaters	53.1	1,696
102	Otter Creek	0.0	0
103	Unnamed tributary to Sheboygan River	78.2	277
104	Onion River—mile 26.5 to 26.9	91.3	303
105	Pigeon River—mile 5 to 10.9	62.8	1,134
106	Unnamed tributaries to Lake Michigan	0.0	0
107	Unnamed tributaries to Lake Michigan	0.0	0
108	Unnamed tributaries to Lake Michigan	0.0	23
109	Unnamed tributaries to Lake Michigan	86.0	1,777
110	Unnamed tributaries to Lake Michigan	61.5	359