

Table 1: 1998 Water Withdrawals for Major Water Uses in Michigan, by County*

County	Number of Facilities	Water Withdrawn (MGD)			Total
		Great Lakes	Surface Water	Ground Water	
Alcona	11	0.00	0.05	0.59	0.64
Alger	9	5.33	0.00	1.02	6.35
Allegan	158	0.00	7.52	13.99	21.51
Alpena	14	119.67	6.14	1.25	127.06
Antrim	33	0.00	0.31	4.22	4.53
Arenac	21	39.02	0.20	0.65	39.87
Baraga	7	2.43	0.06	0.03	2.52
Barry	39	0.00	0.84	2.59	3.43
Bay	69	578.80	4.51	0.37	583.68
Benzie	22	0.00	0.01	1.59	1.60
Berrien	178	36.92	8.09	11.00	56.01
Branch	120	0.00	8.66	15.48	24.14
Calhoun	86	0.00	4.15	28.10	32.25
Cass	84	0.00	2.44	12.79	15.23
Charlevoix	31	28.23	0.26	9.41	37.90
Cheboygan	16	0.00	0.77	1.65	2.42
Chippewa	11	2.86	0.00	1.07	3.93
Clare	10	0.00	0.15	1.47	1.62
Clinton	44	0.00	0.74	3.73	4.47
Crawford	13	0.00	0.13	1.69	1.82
Delta	25	70.00	1.13	0.53	71.66
Dickinson	17	0.00	19.02	3.62	22.64
Eaton	32	0.00	1.73	4.11	5.84
Emmet	42	0.09	0.00	5.02	5.11
Genesee	93	0.00	2.10	8.36	10.46
Gladwin	11	0.00	0.00	0.64	0.64
Gogebic	12	0.00	0.00	2.32	2.32
Grand Traverse	75	6.61	0.30	3.94	10.85
Gratiot	34	0.00	2.31	3.38	5.69
Hillsdale	40	0.00	1.69	5.84	7.53
Houghton	23	0.00	0.00	3.72	3.72
Huron	46	77.15	0.35	2.56	80.06
Ingham	56	0.00	171.85	36.38	208.23

County	Number of Facilities	Water Withdrawn (MGD)			
		Great Lakes	Surface Water	Ground Water	Total
Ionia	41	0.00	0.66	7.06	7.72
Iosco	20	1.29	0.44	0.58	2.31
Iron	23	0.00	0.51	2.58	3.09
Isabella	32	0.00	0.58	4.34	4.92
Jackson	83	0.00	1.22	14.99	16.21
Kalamazoo	124	0.00	26.69	73.97	100.66
Kalkaska	10	0.00	0.37	3.18	3.55
Kent	157	52.82	3.78	16.46	73.06
Keweenaw	5	0.03	0.00	0.04	0.07
Lake	5	0.00	0.03	0.27	0.30
Lapeer	38	0.00	1.17	1.08	2.25
Leelanau	60	0.01	0.12	2.40	2.53
Lenawee	62	0.00	4.57	3.97	8.54
Livingston	81	0.00	0.34	7.91	8.25
Luce	8	0.00	0.00	0.81	0.81
Mackinac	9	2.05	0.03	0.15	2.23
Macomb	67	4.66	2.90	2.23	9.79
Manistee	45	39.54	0.61	4.55	44.70
Marquette	35	279.28	16.32	3.19	298.79
Mason	38	17.85	0.60	2.23	20.68
Mecosta	31	0.00	2.16	5.10	7.26
Menominee	11	1.04	3.25	0.27	4.56
Midland	13	0.00	7.56	0.35	7.91
Missaukee	21	0.00	0.25	2.77	3.02
Monroe	49	1,616.60	5.79	13.11	1,635.50
Montcalm	103	0.00	6.36	37.18	43.54
Montmorency	6	0.00	0.26	0.36	0.62
Muskegon	81	307.92	6.42	9.40	323.74
Newaygo	40	0.00	0.89	3.81	4.70
Oakland	207	0.00	2.55	29.04	31.59
Oceana	39	0.00	0.89	3.11	4.00
Ogemaw	13	0.00	0.15	0.67	0.82
Ontonagon	9	10.53	0.00	0.12	10.65
Osceola	23	0.00	0.35	4.40	4.75
Oscoda	9	0.00	0.26	0.32	0.58

County	Number of Facilities	Water Withdrawn (MGD)			Total
		Great Lakes	Surface Water	Ground Water	
Otsego	25	0.00	0.06	2.52	2.58
Ottawa	190	725.71	94.15	8.64	828.50
Presque Isle	26	3.49	1.52	3.23	8.24
Roscommon	24	0.00	0.30	0.68	0.98
Saginaw	55	11.95	3.70	2.04	17.69
Saint Clair	103	1,842.13	0.43	0.77	1,843.33
Saint Joseph	235	0.00	23.68	56.68	80.36
Sanilac	43	0.17	0.45	4.81	5.43
Schoolcraft	6	5.12	6.27	0.03	11.42
Shiawassee	36	0.00	0.82	5.15	5.97
Tuscola	46	3.76	0.10	5.08	8.94
Van Buren	143	87.98	4.32	10.88	103.18
Washtenaw	87	0.00	20.18	10.86	31.04
Wayne	140	1,805.87	5.32	0.88	1,812.07
Wexford	23	0.00	0.16	5.46	5.62
Total	4,262	7,786.91	505.05	572.82	8,864.78

* This report is provided by the Michigan Department of Environmental Quality and was generated using data collected for the water use reporting program for thermoelectric power generation, public water supply, self-supplied industrial, and irrigation.

Index Map of Michigan Counties

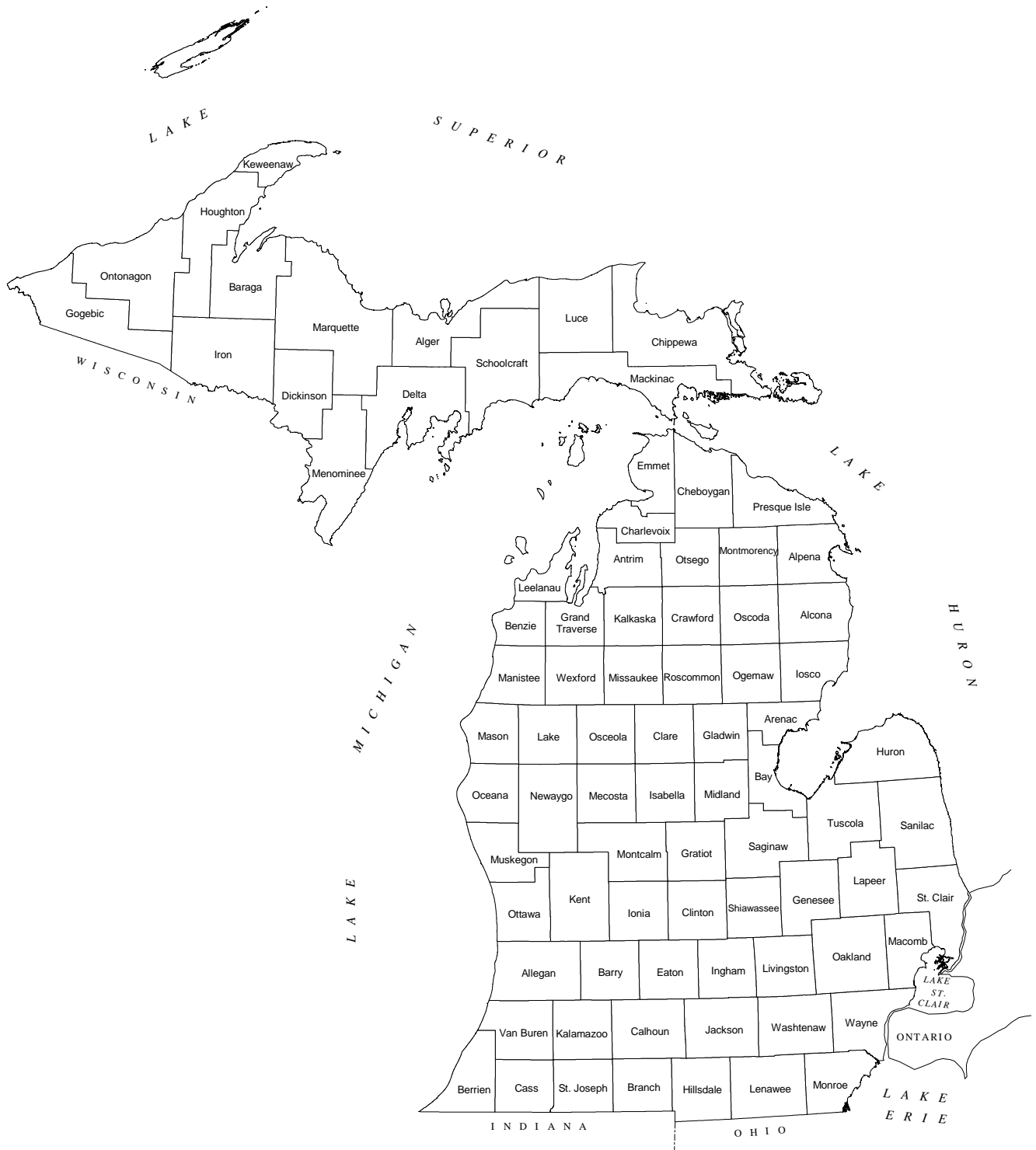


Table 2: 1998 Water Withdrawals for Major Water Uses in Michigan, by Hydrologic Basin*

Hydrologic Basin Code	Number of Facilities	Water Withdrawn ((MGD))			Total
		Great Lakes	Surface Water	Ground Water	
04010302	3	0.00	0.00	1.50	1.50
04020101	10	4.06	0.00	0.76	4.82
04020102	7	6.47	0.00	0.17	6.64
04020103	29	0.03	0.00	3.78	3.81
04020104	2	0.00	0.04	0.04	0.08
04020105	23	281.71	0.07	1.63	283.41
04020201	12	5.33	0.04	0.99	6.36
04020202	7	0.00	0.04	0.65	0.69
04020203	2	0.00	0.00	0.13	0.13
04030106	19	0.00	0.00	2.48	2.48
04030107	5	0.00	0.51	0.29	0.80
04030108	23	0.00	22.27	3.79	26.06
04030109	7	1.04	0.05	0.12	1.21
04030110	15	0.00	16.98	1.49	18.47
04030111	18	70.00	0.33	0.40	70.73
04030112	2	0.00	0.00	0.05	0.05
04040001	20	25.78	2.51	0.36	28.65
04050001	788	8.93	50.37	126.52	185.82
04050002	185	815.89	50.74	6.89	873.52
04050003	299	0.00	33.32	100.88	134.20
04050004	163	0.00	174.26	56.25	230.51
04050005	66	0.00	1.44	6.66	8.10
04050006	318	53.12	53.43	52.14	158.69
04050007	67	0.00	1.65	5.49	7.14
04060101	133	27.90	1.72	9.58	39.20
04060102	174	297.57	11.15	29.90	338.62
04060103	59	39.54	0.99	8.76	49.29
04060104	72	0.00	0.25	3.76	4.01
04060105	198	34.93	0.65	25.16	60.74
04060106	8	0.00	6.31	0.11	6.42
04060107	3	5.12	0.00	0.09	5.21
04070001	10	2.86	0.04	0.94	3.84
04070002	5	2.04	0.00	0.03	2.07

Hydrologic Basin Code	Number of Facilities	Water Withdrawn ((MGD))			
		Great Lakes	Surface Water	Ground Water	Total
04070003	29	5.62	1.20	2.45	9.27
04070004	29	0.00	0.77	2.26	3.03
04070005	4	0.00	0.06	0.51	0.57
04070006	25	117.54	6.78	2.10	126.42
04070007	47	0.00	0.88	3.85	4.73
04080101	43	40.32	0.44	1.42	42.18
04080102	19	0.29	0.89	0.39	1.57
04080103	80	4.63	2.74	4.75	12.12
04080104	77	240.61	0.10	0.76	241.47
04080201	38	0.00	7.68	2.24	9.92
04080202	57	0.00	2.84	8.51	11.35
04080203	106	0.00	2.35	10.70	13.05
04080204	112	0.00	2.97	8.10	11.07
04080205	44	0.48	0.82	4.55	5.85
04080206	54	590.04	2.60	0.65	593.29
04090001	75	1,676.00	1.44	4.24	1,681.68
04090002	17	4.74	0.26	0.57	5.57
04090003	150	8.69	3.73	19.44	31.86
04090004	167	1,798.83	4.93	2.45	1,806.21
04090005	189	0.17	21.37	19.31	40.85
04100001	38	1,607.41	3.17	3.20	1,613.78
04100002	92	9.22	7.69	17.64	34.55
04100003	7	0.00	0.04	0.11	0.15
04100006	11	0.00	0.14	0.83	0.97
Total	4,262	7,786.91	505.05	572.82	8,864.78

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Index Map of Michigan Hydrologic Basins

