

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER BUREAU
APRIL 2009

STAFF REPORT

MICHIGAN BEACH MONITORING
YEAR 2008 ANNUAL REPORT

INTRODUCTION

The Michigan Department of Environmental Quality (MDEQ), Surface Water Quality Monitoring Program, is summarized in the January 1997 report entitled, "A Strategic Environmental Quality Monitoring Program for Michigan's Surface Waters" (Strategy) (MDEQ, 1997). The objectives of the beach monitoring component of the Strategy are listed below:

1. Assist local health departments to implement and strengthen beach monitoring programs.
2. Determine whether waters of the state are safe for total body contact recreation.
3. Create and maintain a statewide database.
4. Compile data to determine overall water quality.
5. Evaluate the effectiveness of MDEQ programs in attaining Water Quality Standards (WQS) for pathogen indicators.

1. ASSIST LOCAL HEALTH DEPARTMENTS TO IMPLEMENT AND STRENGTHEN BEACH MONITORING PROGRAMS

Beach Monitoring

The monitoring of beaches in Michigan is voluntary and is conducted by the local health departments. Health departments are required to comply with Michigan's WQS according to R 333.12544 of the Public Health Code, 1978 PA 368 (Act 368), as amended. According to R 333.12541 of Act 368, a local health officer or an authorized representative of a local health department that conducts tests at bathing beaches is required to notify the MDEQ and other entities of the test results within 36 hours of conducting a test or evaluation. This rule also states that the local health department may petition the circuit court for an injunction ordering the owners of a beach to close the beach. Owners of public bathing beaches must post a sign that states whether or not the bathing beach has been tested, and if so, the location of the test results.

The MDEQ awards grants to local health departments to monitor and report levels of *E. coli* in the swimming areas of public beaches. In selecting recipients for grant awards, the MDEQ considers all of the following:

- Location and frequency of beach use.
- History of beach monitoring and bacterial contamination.
- Ability to communicate results to the public in an efficient manner.
- Ability to respond and take appropriate action in the event of beach contamination.
- Proximity of beach to a known bacterial contamination source.
- Innovativeness and feasibility of proposed project.
- Ability to reduce time delay between sampling and results.

Since 2000, the number of counties with a beach monitoring program has more than doubled with the assistance of state and federal grants. A history of Michigan's beach monitoring program growth is shown below in Table 1.

Table 1. The number of counties where at least one beach was monitored and the total number of beaches that were monitored each year.

Year	2008	2007	2006	2005	2004	2003	2002	2001	2000
Number of Counties that Monitored	57	57	58	52	53	38	26	36	24
Number of Beaches Monitored	467	474	440	406	494	392	210	250	<50

Funding for Beach Monitoring

Prior to 2000, health departments relied on local funding to conduct beach monitoring programs. Local funding was often not sufficient to execute a comprehensive monitoring program. Beginning in 2000, funding became available from the Clean Michigan Initiative-Clean Water Fund (CMI-CWF). In 2003, the United States Environmental Protection Agency (USEPA) also began awarding funds from the Beaches Environmental Assessment and Coastal Health Act (BEACH Act) for monitoring Great Lakes beaches.

CMI-CWF Grants

The MDEQ currently distributes CMI-CWF funds to aid in the development and implementation of inland lake beach monitoring programs throughout the state. In 2000 and 2001, CMI-CWF funds were distributed for inland lakes and Great Lakes beach monitoring programs. In 2002, no CMI-CWF funds were distributed, but future funding was designated for inland beaches only due to the availability of BEACH Act funding for Great Lakes beaches.

The CMI-CWF grant funds are awarded by the MDEQ to local health departments and nonprofit entities, which include county, city, township, and village agencies, watershed and environmental action councils, universities, regional planning agencies, and incorporated nonprofit organizations. The majority of grants are awarded to local health departments. If a group other than a local health department is awarded a grant, the MDEQ requires the group to work closely with their local health department.

The CMI-CWF offers reliable funding for the monitoring of surface water over a period of approximately 15 years. Since 2000, the MDEQ has awarded \$934,843 including 14 awards totaling \$111,500 in 2008. A complete award history is shown in Appendix A.

BEACH Act Grants

The MDEQ distributes BEACH Act funds to aid in the development and implementation of Great Lakes beach monitoring programs. State, local, and tribal governments having coastal waters are eligible to apply for the BEACH Act grants. The USEPA (2002) has published performance criteria that must be met by grant recipients. Since the BEACH Act was initiated in 2003, the MDEQ has allocated \$1,463,484 including 24 awards totaling \$245,719 in 2008. A complete award history is shown in Appendix B.

2. DETERMINE WHETHER WATERS OF THE STATE ARE SAFE FOR TOTAL BODY CONTACT RECREATION

Pathogens

Pathogens are microorganisms (bacteria, protozoans, or viruses) that cause disease. Most waterborne pathogens are readily found in the feces of humans and other warm-blooded animals. Gastroenteritis is the most common illness associated with swimming in contaminated water although other illnesses can occur. The severity of the disease or illness depends on the amount of exposure and the type of pathogen [(Appendix C) USEPA, 2001]. The USEPA (1986 and 2002) has determined that *E. coli* and *Enterococci* are appropriate indicators for the presence of waterborne pathogens in fresh water.

Sources of Bacterial Contamination

Combined Sewer Overflows are discharges of raw or inadequately treated sewage from sewer systems that are designed to carry both domestic sewage and storm water to Wastewater Treatment Plants (WWTPs). When a storm event occurs and the volume of the wastewater is larger than the WWTP can process, the excess untreated sewage and storm water are discharged into local waterways.

Sanitary Sewer Overflows are discharges of raw or inadequately treated sewage from municipal sanitary sewer systems, which are designed to carry domestic sanitary sewage but not storm water. Systems that contain cracks, obstructions, storm water connections, or that are undersized with sewers and pumps too small to carry all the sewage may leak or overflow raw sewage from manholes, bypass pump stations, and WWTPs into the surrounding waters, particularly during extreme hydrologic events.

Failing septic systems can cause leaching and/or runoff into the waterways, causing bacterial contamination. Urban storm water runoff from roads, roofs, construction sites, parking lots, etc., may contain fecal matter from pets and wildlife. Excessive waterfowl near the beaches and animal waste runoff from farms and fields can contribute to elevated bacterial levels. Illicit connections of pipes containing sewage to storm sewers or surface waters are also a potential source of bacterial contamination.

E. coli Standard

The MDEQ requires beaches to be monitored according to the Part 4 rules, WQS, promulgated under Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, as follows:

R 323.1062 Microorganisms

Rule 62(1): All waters of the state protected for total body contact recreation shall not contain more than 130 *E. coli* per 100 milliliters (ml), as a 30-day geometric mean. Compliance shall be based on the geometric mean of all individual samples taken during 5 or more sampling events representatively spread over a 30-day period. Each sampling event shall consist of 3 or more samples taken at representative locations within a defined sampling area. At no time shall the waters of the state protected for total body contact recreation contain more than a maximum of 300 *E. coli* per 100 ml. Compliance shall be based on the geometric mean of 3 or more samples taken during the same sampling event at representative locations within a defined sampling area.

All surface waters of the state are protected for total body contact according to the Part 4 rules, as follows:

R 323.1100 Designated Uses

Rule 100(2): All surface waters of the state are designated and protected for total body contact recreation from May 1 to October 31 in accordance with the provisions of R 323.1062. Total body contact recreation immediately downstream of wastewater discharges, areas of significant urban runoff, combined sewer overflows, and areas influenced by certain agricultural practices is contrary to prudent public health and safety practices, even though WQS may be met.

Beach Closures

Beach advisories or closures in Michigan are most commonly issued because of elevated counts of *E. coli* in water samples collected from the shoreline of a water body. Health departments use the daily and the 30-day geometric mean to determine if a beach closure or an advisory should be issued. The health department notifies the owner of the beach when a beach should be closed. If necessary, the health department can petition the court for an injunction to force the owner to close the beach. The beach closure or advisory remains in effect until additional tests meet the WQS.

3. CREATE AND MAINTAIN A STATEWIDE DATABASE

The MDEQ developed a centralized statewide database to track bathing beach monitoring *E. coli* test results. These results are available electronically to the public via the MDEQ's Web site. The Web site includes information about individual beaches (by county or lake name), frequency of testing, monitoring history, beach closures, and monitoring efforts. The Web site also provides information for beach monitoring procedures and methods, additional links to beach monitoring resources, and contact information for federal, state, and local beach monitoring staff.

Reporting Beach Monitoring Data

According to R 333.12541(2), all local health departments are required to report their beach monitoring test results to the MDEQ within 36 hours of conducting the test or evaluation. Health departments receiving beach monitoring grants are required to enter their data on the MDEQ's Web site, while other health departments are encouraged to report their data on the Web site.

As a requirement of the BEACH Act, the MDEQ submits beach monitoring data to the USEPA. The USEPA has created several Web pages for beach information that can be found at <https://www.epa.gov/beaches/>, along with an online directory of information regarding the water quality at our nation's beaches entitled, "Beach Advisory Closing Online Notification," that can be found at <https://www.epa.gov/waterdata/beacon-20-beach-advisory-and-closing-online-notification>.

4. COMPILE DATA TO DETERMINE OVERALL WATER QUALITY

List of Beaches

Michigan beaches identified by local health departments and the MDEQ are listed in Appendices D.1 (inland lakes-monitored), D.2 (inland lakes-not monitored), E.1 (Great Lakes-monitored), and E.2 (Great Lakes-not monitored). They are also listed on the MDEQ's beach Web site. The beaches are arranged alphabetically by county, then water body, then location

(site name). There are 563 identified public beaches on inland lakes and rivers and 602 identified public beaches on the Great Lakes.

Synopsis of Data

In 2008, monitoring was conducted at 467 (259 inland and 208 Great Lake) public beaches in 57 Michigan counties. Out of 5,435 daily samples collected, 154 (2.8 percent) exceeded Michigan's WQS (Appendix F).

The exceedances were reported from 75 beaches (15.8 percent of all monitored beaches), 69 (14.8 percent) of which reported beach closures or advisories (108 incidents lasting a total of 697 days). The number of beaches with exceedances differed from the number of beaches with closures or advisories due to any of the following: (1) multiple exceedances were reported for a single closure; (2) water samples were tested before or after the swimming season; (3) delays in receiving test results; or (4) a second test (follow-up sample) was used to confirm an exceedance. A summary of exceedances of the *E. coli* WQS for inland and Great Lakes beaches from 2000 to 2008 is provided in Table 2.

Table 2. Beach closures or advisories, total number of days closed, percent of monitored beaches with a closure, and percent of samples exceeding WQS for all public beaches in Michigan.

Year	2008	2007	2006	2005	2004	2003	2002	2001	2000
Closures or Advisories	108	89	110	80	92	140	117	119	276
Total Days Closed	697	1,568	886	474	578	>140	211	122	*
Percent of Monitored Beaches with Closure	14.8	12.9	18.4	19.0	13.5	10.2	*	*	*
Percent of Samples Exceeding WQS	2.8	2.6	3.6	2.8	3.1	3.0	4.2	3.9	9.2

*data not available

Synopsis of Data from Great Lakes Beaches

In 2008, monitoring was conducted at 208 Great Lakes public beaches in 37 counties in Michigan. Out of 2,549 daily samples collected, 74 (2.9 percent) exceeded Michigan's WQS (Appendix F). The exceedances were reported from 34 beaches (16.3 percent of monitored Great Lakes beaches), 26 of which reported beach closures or advisories (52 incidents lasting a total of 327 days). A summary of the exceedances of the *E. coli* WQS for Great Lakes beaches is provided in Table 3. These totals include 12 beaches that had shallow water monitoring in addition to traditional monitoring. Out of 117 daily samples collected in shallow water areas, 17 exceeded Michigan's WQS. The exceedances were reported from 6 beaches that reported 15 closures or advisories that lasted 109 days.

Table 3. Number of exceedances and closures/advisories for Great Lakes beaches monitored in 2008.

a. Number of Exceedances Reported per Beach	b. Number of Beaches with Exceedance(s)	Total Number of Exceedances (a x b)	c. Number of Closures or Advisories per Beach	d. Number of Beaches with Closures or Advisories	Total Number of Closures or Advisories (c x d)
1	19	19	1	13	13
2	6	12	2	6	12
3	3	9	3	4	12
4	3	12	4	2	8
6	1	6	7	1	7
7	1	7			
9	1	9			
TOTAL	34	74		26	52

A summary of the 2008 beach monitoring and beach closure/advisory data for each of the Great Lakes, Lake St. Clair, and connecting channels is provided in Table 4. Data reported for Lake Huron includes results of shallow water samples from 12 beaches. Shallow water data are indicated in parenthesis.

Table 4. Number of public beaches and closures/advisories for the Great Lakes, Lake St. Clair, and connecting channels.

Water Body	Number of Public Beaches	Number of Beaches that were Monitored	Number of Beaches reporting a closure	Number of Beach Closures or Advisories	Total Number of Days with Closures or Advisories
Lake Erie	2	2	0	0	0
Lake Huron	159	65 (12)	13 (6)	27 (15)	149 (109)
Lake Michigan	305	109	7	8	16
Lake Superior	118	21	1	1	5
Lake St. Clair	5	5	5	16	157
Great Lakes Connecting Channels	14	6	0	0	0
TOTAL	603	208	26	52	327

Synopsis of Data from Inland Beaches

In 2008, monitoring was conducted at 259 inland lake public beaches in 37 counties in Michigan. Out of 2,886 daily samples collected, 80 (2.8 percent) exceeded Michigan's WQS (Appendix F). The exceedances were reported from 40 beaches (15.4 percent of monitored inland beaches) and 43 beaches reported closures or advisories (56 incidents lasting a total of 370 days). There are slightly more beaches that reported a closure than reported an exceedance. Some advisories or closures were posted at beaches due to events such as a combined sewer overflow or concern of contamination from identified sources. A summary of the exceedances of the *E. coli* WQS for inland lakes beaches is provided in Table 5.

Table 5. Number of exceedances and closures/advisories for inland beaches monitored in 2008.

a. Number of Exceedances Reported per Beach	b. Number of Beaches with Exceedance(s)	Total Number of Exceedances (a x b)	c. Number of Closures or Advisories per Beach	d. Number of Beaches with Closures or Advisories	Total Number of Closures or Advisories (c x d)
1	26	26	1	34	34
2	4	8	2	6	12
3	5	15	3	2	6
4	2	8	4	1	4
7	1	7			
8	2	16			
TOTAL	40	80		43	56

Synopsis of Huron County Shallow Water Monitoring Study

In 2008, the MDEQ awarded a grant of \$10,000 to the Huron County Health Department to monitor *E. coli* in shallow water (ankle deep) at 12 public beaches located along Lake Huron and Saginaw Bay from June to August. The *E. coli* standard for Michigan is protective for total body contact recreation in surface waters. However, shallow water monitoring was conducted at select sites to address additional concerns about the *E. coli* levels in shallow water at beaches where decaying vegetation (muck) was present.

The objectives of this project were to determine the water quality (based on *E. coli* concentrations and physical observation), investigate possible factors leading to the degradation of water quality, establish a procedure to notify the public of water quality, and issue public notice when the sample results exceeded the *E. coli* WQS for recreational water.

At least 3 individual samples were collected in shallow water at each of the 12 beaches concurrently with routine beach monitoring samples collected from swimming areas. Individual samples were analyzed and reported as daily geometric means. Out of 117 daily geometric means reported, 17 (14.5 percent) exceeded Michigan's WQS. The exceedances in shallow water from 6 beaches resulted in 15 beach closures or advisories that lasted a total of 109 days. Three beaches reported 2 incidents and 3 beaches reported 3 incidents.

A summary of the 2008 shallow water monitoring data for each of the 12 Huron County public beaches is provided in Table 6. The 50th percentile (also known as the median) and the 95th percentile for each beach were calculated based on the individual shallow water sample results. The 50th percentile represents the center of the dataset, where half of the data points fall above and the other half fall below the value. The median is usually close to the geometric mean as was the case with these data. The 95th percentile represents the value in the data set that only 5 percent of the data exceed. All of the median values for the shallow water samples were less than Michigan's WQS of 300 *E. coli*/100 ml, with values ranging between 9.1 and 161.5 *E. coli*/100 ml. Five of the 95th percentile values for the shallow water samples were less than 300 *E. coli*/100 ml and seven were above the standard, with the results ranging from 88.2 to 2,419.6 *E. coli*/100ml.

Table 6. Shallow water monitoring data.

Location	Number individual samples	Number daily means	Number daily means that exceed standard	50th Percentile <i>E. coli</i> /100 ml	95th Percentile <i>E. coli</i> /100 ml
Thompson Park	33	10	2	34	1,459
Sleeper State Park	30	9	0	9	88
Port Crescent State Park Day Use	30	8	0	18	272
Port Crescent State Park Camping Area	30	11	0	57	159
Philip County Park	30	9	0	20	260
Oak Beach County Park	30	9	2	47	687
McGraw County Park	30	9	0	55	461
Lighthouse County Park	30	10	4	89	921
Jenks County Park	30	10	0	22	219
Harbor Beach City Park	30	10	2	59	770
Bird Creek County Park	36	12	4	162	2,420
Caseville County Park	33	10	3	74	1,033

Shallow water at Sleeper State Park, Port Crescent State Park Day Use and Camping Area, Philip County Park, McGraw County Park, and Jenks County Park met Michigan's WQS for the entire 2008 monitoring season. Data analysis shows the remaining beaches reported at least 2 exceedances, but the 50th percentile for these beaches suggests the shallow water met the WQS most of the monitoring season. The combined results of relatively low 50th percentile values and elevated 95th percentile values for *E. coli* at some of the beaches indicates that intermittent sources of contamination may be affecting water quality in these shallow areas. This suggests these beaches may be affected by storm water and other wet weather events to a greater degree than other beaches.

5. EVALUATE THE EFFECTIVENESS OF MDEQ PROGRAMS IN ATTAINING WQS FOR PATHOGEN INDICATORS

Beach Water Quality Data that do not Meet WQS

Water quality protection continues to be a great concern in Michigan and depends on the collective efforts of multiple pollution prevention programs. As part of the beach monitoring program, health departments and the MDEQ review beach water quality data including the number of beach closures or advisories. This information is used in federal, state, and local pollution prevention programs to determine which water bodies are not meeting WQS and to help identify sources of pollution that affect beach water quality.

Section 303(d) of the federal Clean Water Act and the USEPA's Water Quality Planning and Management Regulations (Title 40 of the Code of Federal Regulations, Part 130) require states to develop TMDLs for water bodies that are not meeting WQS. The TMDL process establishes the allowable loadings of pollutants to a water body based on the relationship between pollution sources and water quality conditions. TMDLs provide a basis for determining the pollutant reductions necessary from both point and nonpoint sources to restore and maintain the quality of the water resources.

Waters associated with public beaches are considered to not attain WQS when *E. coli* monitoring data collected by county health departments during the total body contact recreation

season of May 1 to October 31 (as described by R 323.1100(2)) meet one or more of the following decision elements:

- *E. coli* concentrations exceed the geometric mean WQS of 130 *E. coli* per 100 ml based on weekly samples collected over a minimum of 16 weeks.
- Ten percent of the sample results exceed the daily maximum WQS of 300 *E. coli* per 100 ml based on weekly samples collected over a minimum of 16 weeks.
- Two or more sample results collected at any time during the total body contact recreation season of May 1 to October 31 exceed the partial body WQS of 1,000 *E. coli* per 100 ml.

The water bodies that exceed WQS and require a TMDL are placed on the Section 303(d) list and TMDL development schedule. A water body is not placed on the TMDL development schedule if a remedial action plan is already in place. Based on beach monitoring data, 41 beaches have been listed on the Section 303(d) list because they met at least one of the three criteria for placement of a beach on the TMDL list.

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REFERENCES

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- USEPA. 1986. Ambient Water Quality Criteria for Bacteria-1986. EPA 440/5-84/002.
- USEPA. 2001. Protocol for Developing Pathogen TMDLs. January 2001. EPA 84/R-00-002.
- USEPA. 2002. National Beach Guidance and Required Performance Criteria for Grants. EPA-823-B-02-004.

Appendix A. CMI-CWF Grants for Great Lake and Inland Lake Beaches (2000 and 2001) and Inland Lake Beaches (2003-2008).

Table 1. 2000 CMI-CWF Grants

2000 CMI-CWF Grantees	Requested Budget Amount	Granted Amount	Total Monitored Beaches
Berrien County Health Department	\$49,012	\$24,450	11
Central Michigan District Health Department	\$94,115	\$46,363	66
Chippewa County Health Department	\$15,882	\$15,882	8
City of Marquette	\$19,071	\$19,071	7
Grand Traverse Bay Watershed Initiative	\$34,768	\$34,768	17
Huron County Health Department	\$18,407	\$18,407	11
Kent County Health Department	\$5,820	\$5,820	9
Macomb County Health Department	\$57,649	\$28,239	6
TOTAL	\$294,724	\$193,000	135

Table 2. 2001 CMI-CWF Grants

2001 CMI-CWF Grantees	Requested Budget Amount	Granted Amount	Total Monitored Beaches
District Health Department #4	\$16,782	\$16,782	44
Kalamazoo County Human Services Department	\$35,000	\$35,000	21
Muskegon County Health Department	\$9,073	\$9,073	14
Northwest Michigan Community Health Agency	\$14,079	\$14,079	22
St. Clair County Health Department	\$25,000	\$25,000	26
TOTAL	\$99,934	\$99,934	127

Table 3. 2003 CMI-CWF Grants

2003 CMI-CWF Grantees	Requested Budget Amount	Granted Amount	Total Monitored Beaches
Barry-Eaton District Health Department	\$14,812.51	\$14,812.51	7
Branch, Hillsdale, St. Joseph Community Health Agency	\$48,690.41	\$10,000	51
Central Michigan District Health Department	\$48,546	\$18,375	45
Chippewa County Health Department	\$12,833.41	\$12,833.41	4
District Health Department #4	\$22,090.69	\$10,000	13
Genesee County Health Department	\$28,849	\$10,000	21
Macomb County Health Department	\$6,543	\$6,543	2
Muskegon County Health Department	\$25,023	\$10,000	15
Oakland County Health Division	\$17,462.68	\$14,725.49	76
Ottawa County Health Department	\$7,403	\$5,544	10
TOTAL	\$232,253.70	\$112,833.41	244

Table 4. 2004 CMI-CWF Grants

2004 CMI-CWF Grantees	Requested Budget Amount	Granted Amount	Total Monitored Beaches
Central Michigan District Health Department	\$55,966.20	\$38,117.57	54
Chippewa County Health Department	\$5,759.02	\$5,759.02	2
District Health Department #4	\$9,800.01	\$9,800.01	24
Grand Traverse (Watershed Center)	\$7,736.34	\$7,736.34	3
Muskegon County Health Department	\$1,369	\$1,369	13
Northwest Michigan Community Health Agency	\$8,440	\$8,440	5
Wayne County Health Department	\$15,235.50	\$15,235.50	8
Western Upper Peninsula District Health Department	\$9,114.56	\$9,114.56	6
Wexford County Drain Commission	\$4,428.00	\$4,428	5
TOTAL	\$117,848.63	\$100,000	120

Table 5. 2005 CMI-CWF Grants

2005 CMI-CWF Grantees	Requested Budget Amount	Granted Amount	Total Monitored Beaches
Barry-Eaton District Health Department	\$17,333.41	\$10,000	9
Central Michigan District Health Department	\$66,981.60	\$20,771.04	73
District Health Department #2	\$34,130.40	\$6,500	16
District Health Department #4	\$31,660.92	\$8,000	19
Genesee County Health Department	\$29,774	\$10,000	11
Kalamazoo County health Department	\$49,812.20	\$20,000	8
Muskegon County health Department	\$10,895	\$5,000	15
Northwest Michigan Community Health Agency	\$9,740	\$5,000	13
Ottawa	\$13,595	\$5,000	8
Western Upper Peninsula District	\$7,796.42	\$5,000	6
Wexford	\$4,728.96	\$4,728.96	5
TOTAL	\$317,336.58	\$100,000	199

Table 6. 2006 CMI-CWF Grants

2006 CMI-CWF Grantees	Requested Budget Amount	Granted Amount	Total Monitored Beaches
Barry-Eaton District Health Department	\$ 5,699.23	\$5,699.23	6
Chippewa County Health Department	\$ 12,415	\$12,415	5
District Health Department #2	\$ 30,342	\$30,342	16
District Health Department #4	\$ 13,020.26	\$13,020.26	4
Genesee County Health Department	\$ 26,160	\$11,000	16
Macomb County Health Department	\$ 7,933.24	\$7,933.24	2
Northwest Community Health Agency	\$ 6,938.25	\$6,938.25	18
Ottawa County Health Department	\$ 12,112	\$12,112	8
Wayne County Health Department	\$ 15,307.50	\$15,307.50	9
Wexford County Drain Commissioner	\$ 2,809	\$2,809	5
TOTAL	\$132,736.48	\$117,576.48	89

Table 7. 2007 CMI-CWF Grants

2007 CMI-CWF Grantees	Requested Budget Amount	Granted Amount	Total Monitored Beaches
Barry-Eaton District Health Department	\$15,710.04	\$7,737.12	5
Central Michigan District Health Department	\$21,179.25	\$11,357.04	22
Chippewa County Health Department	\$13,828.49	\$7,488.96	4
District Health Department #2	\$16,132	\$7,737.12	8
District Health Department #4	\$13,623.14	\$7,302.84	4
Genesee County Health Department	\$28,314.72	\$7,488.96	16
Macomb County Health Department	\$7,829.73	\$6,000	2
Muskegon County Health Department	\$9,375	9,375	16
Northwest Community Health Agency	\$7,000	\$7,000	19
Ottawa County Health Department	\$11,858	\$7,488.96	8
Wayne County Health Department	\$15,307.50	\$7,985.28	3
Western Upper Peninsula District Health Department	\$7,103.50	\$7,103.50	6
Wexford County Drain Commissioner	\$5,935.22	\$5,935.22	5
TOTAL	\$173,196.59	\$100,000	118

Table 8. 2008 CMI-CWF Grants

2008 CMI-CWF Grantees	Requested Budget Amount	Granted Amount	Total Monitored Beaches
Barry-Eaton District Health Department	\$16,640.84	\$7,000	8
Central Michigan District Health Department	\$13,079.09	\$13,800	23
Chippewa County Health Department	\$11,569.97	\$5,800	6
DHD # 2	\$30,152.90	\$16,220	28
DHD # 4	\$15,060.80	\$5,500	4
Genesee County Health Department	\$29,080.80	\$8,000	15
Huron County Health Department	\$10,000	\$10,000	12
Macomb County Health Department	\$9,231.54	\$4,000	2
Muskegon County Health Department	\$7,982.53	\$7,983	16
Northwest Michigan Community Health Agency	\$7,000	\$7,465	17
Ottawa County Health Department	\$9,793.92	\$7,000	8
St. Joseph County Parks and Recreation	\$8,003.15	\$7,000	8
Western Upper Peninsula District Health Department	\$7,443.38	\$5,800	6
Wexford County Drain Commission	\$5,618.40	\$5,932	5
TOTAL	\$180,657.32	\$111,500	158

Appendix B. BEACH Act Grants for Great Lakes Beaches.

Table 1. 2003 BEACH Act Grants.

2003 BEACH Act Grantees	Requested Budget Amount	Granted Amount	Total Monitored Beaches
Bay County Health Department	\$16,410	\$12,000	6
Berrien County Health Department	\$17,732	\$16,368	13
Central Michigan District Health Department	\$10,152	\$12,152	8
Chippewa County Health Department	\$19,564.38	\$14,590.56	9
City of Marquette	\$11,371.40	\$8,551.20	5
District Health Department #2	\$19,899.75	\$16,000	8
District Health Department #4	\$35,656.46	\$23,000	13
District Health Department #10	\$41,721	\$24,928.11	20
Grand Traverse Bay Watershed	\$23,695	\$23,695	12
Huron County Health Department	\$41,061	\$23,000	13
Macomb County Health Department	\$23,525	\$10,000	4
Muskegon District Health Department	\$11,371	\$11,371	10
Northwest Michigan Community Health Agency	\$24,930.93	\$15,730.93	23
Sanilac County Health Department	\$15,817	\$13,817	7
St. Clair County Health Department	\$24,094.50	\$23,000	13
Western Upper Peninsula District Health Department	\$27,632.79	\$21,000	18
TOTAL	\$367,634.21	\$269,203.80	182

Table 2. 2004 BEACH Act Grants.

2004 BEACH Act Grantees	Requested Budget Amount	Granted Amount	Total Monitored Beaches
Bay County Health Department	\$11,082.38	\$11,082.38	6
Berrien County Health Department	\$36,212	\$23,104	19
Central Michigan District Health Department	\$13,899	\$13,899	8
Chippewa County Health Department	\$31,250.17	\$10,944	9
City of Marquette	\$13,848.56	\$6,080	5
District Health Department #2	\$28,042.10	\$10,944	9
District Health Department #4	\$21,293.29	\$15,808	13
District Health Department #10	\$24,999.50	\$24,999.50	23
Huron County Health Department	\$26,210.20	\$10,944	12
Macomb County Health Department	\$24,490	\$4,864	4
Muskegon County Health Department	\$15,000	\$15,000	12
Northwest Michigan Community Health Agency	\$15,649.65	\$15,649.65	26
Ottawa County Health Department	\$10,246.33	\$10,246.33	9
Public Health, Delta and Menominee Counties	\$12,937.18	\$12,937.18	13
Sanilac County Health Department	\$15,146.74	\$8,512	7
St. Clair County Health Department	\$24,641.24	\$17,024	14
The Watershed Center Grand Traverse Bay	\$22,035	\$15,808	13
Wayne County Health Department	\$10,182	\$3,651	3
Western Upper Peninsula District Health Department	\$21,634.92	\$13,376	11
TOTAL	\$378,800.26	\$244,873.04	216

Table 3. 2005 BEACH Act Grants.

2005 BEACH Act Grantees	Requested Budget Amount	Granted Amount	Total Monitored Beaches
Allegan County Health Department	\$9,572.00	\$10,881.00	4
Bay County Health Department	\$11,683.50	\$7,500.00	6
Berrien County Health Department	\$16,975.75	\$16,975.75	13
Central Michigan District Health Department	\$14,994.68	\$10,000.00	8
Chippewa County Health Department	\$19,855.53	\$11,000.00	9
District health Department #2	\$50,942.66	\$18,000.00	5
District Health Department #4	\$47,507.93	\$20,000.00	23
District Health Department #10	\$24,999.85	\$24,999.85	20
Grand Traverse (Watershed Center)	\$16,151.17	\$11,000.00	13
Huron County Health Department	\$18,259.39	\$14,290.00	12
Macomb County health Department	\$19,293.88	\$7,000.00	4
Marquette (City of Marquette)	\$14,700.00	\$7,275.96	2
Monroe County Health Department	\$12,416.52	\$6,000.00	12
Muskegon County health Department	\$14,295.00	\$14,295.00	26
Northwest Michigan Community Health Agency	\$19,541.84	\$19,541.84	9
Ottawa County Health Department	\$16,442.00	\$16,442.00	4
Public Health, Delta and Memominee Counties	\$15,084.23	\$10,000.00	7
St. Clair County Health Department	\$23,745.60	\$23,745.60	14
Sanilac County Health Department	\$12,515.53	\$9,000.00	9
Wayne County Health Department	\$6,210.00	\$6,210.00	3
Western UP District Health Department	\$17,736.86	\$14,000.00	11
TOTAL	\$402,923.92	\$278,157.00	214

Table 4. 2006 BEACH Act Grants.

Local Health Department	Allocated Amount	Total Monitored Beaches
Allegan County Health Department	\$5,290.24	4
Bay County Health Department	\$6,685.36	6
Berrien County Health Department	\$12,265.84	14
Central Michigan District Health Department	\$8,080.48	8
Chippewa County Health Department	\$8,778.04	9
Delta-Menominee District Health Department	\$5,290.24	4
District Health Department #2	\$8,778.04	9
District Health Department #4	\$12,265.84	14
District Health Department #10	\$17,846.32	22
Huron County Health Department	\$10,870.72	12
Luce-Mackinac-Alger-Schoolcraft District Health Department	\$9,475.60	10
Macomb County Health Department	\$5,290.24	4
Marquette (city of Marquette)	\$5,987.80	5
Monroe County Health Department	\$3,895.12	2
Muskegon County Health Department	\$10,870.72	12
Northwest Michigan Community Health Agency	\$23,426.80	30
Ottawa County Health Department	\$8,778.04	9
Saint Clair County Health Department	\$12,265.84	14
Sanilac County Health Department	\$5,290.24	4
Van Buren/Cass District Health Department	\$5,290.24	4
Wayne County Health Department	\$3,895.12	2
Watershed Center (Grand Traverse & Benzie-Leelanau)	\$11,278.04	9
Western Upper Peninsula District Health Department	\$10,870.72	12
Total	\$212,765.64	219

Table 5. 2007 BEACH Act Grants.

Local Health Department	Allocated Amount	Total Monitored Beaches
Allegan County Health Department	\$5,290.24	4
Bay County Health Department	\$6,685.36	5
Berrien County Health Department	\$12,265.84	13
Central Michigan District Health Department	\$8,080.48	8
Chippewa County Health Department	\$8,778.04	6
Delta-Menominee District Health Department	\$5,290.24	4
District Health Department #2	\$8,778.04	9
District Health Department #4	\$12,265.84	13
District Health Department #10	\$17,846.32	22
Huron County Health Department	\$10,870.72	12
Luce-Mackinac-Alger-Schoolcraft District Health Department	\$9,475.60	3
Macomb County Health Department	\$5,290.24	4
Marquette (city of Marquette)	\$5,987.80	5
Monroe County Health Department	\$3,895.12	2
Muskegon County Health Department	\$10,870.72	12
Northwest Michigan Community Health Agency	\$23,426.80	30
Ottawa County Health Department	\$8,778.04	9
Saint Clair County Health Department	\$12,265.84	15
Sanilac County Health Department	\$5,290.24	4
Van Buren/Cass District Health Department	\$5,290.24	4
Wayne County Health Department	\$3,895.12	1
Watershed Center (Grand Traverse & Benzie-Leelanau)	\$11,278.04	9
Western Upper Peninsula District Health Department	\$10,870.72	11
Total	\$212,765.64	205

Table 6. 2008 BEACH Act Grants.

Local Health Department	Allocated Amount	Total Monitored Beaches
Allegan County Health Department	\$5,964	4
Bay County Health Department	\$6,830	5
Berrien County Health Department	\$14,624	14
Central Michigan District Health Department	\$9,428	8
Chippewa County Health Department	\$10,294	9
Delta-Menominee District Health Department	\$5,964	4
Detroit, City of	\$2,000	1
District Health Department #2	\$10,294	9
District Health Department #4	\$12,892	12
District Health Department #10	\$21,615	22
Huron County Health Department	\$12,892	12
Luce-Mackinac-Alger-Schoolcraft District Health Department	\$5,964	4
Macomb County Health Department	\$5,964	4
Marquette (city of Marquette)	\$6,830	5
Monroe County Health Department	\$5,964	4
Muskegon County Health Department	\$12,892	12
Northwest Michigan Community Health Agency	\$28,544	30
Ottawa County Health Department	\$10,294	9
St. Clair County Health Department	\$15,490	15
Sanilac County Health Department	\$5,964	4
Van Buren/Cass District Health Department	\$5,964	4
Wayne County Health Department	\$3,366	2
Watershed Center (Grand Traverse & Benzie-Leelanau)	\$12,794	9
Western Upper Peninsula District Health Department	\$12,892	12
Total	\$245,719	214

Appendix C. Waterborne Pathogens

Pathogen		Disease	Effects
Bacteria	Escherichia coli (enteropathogenic)	Gastroenteritis	Vomiting, diarrhea, death in susceptible populations
	Helicobacter pylori	Gastritis	Diarrhea. Peptic ulcers are a long-term sequela
	Legionella pneumophila	Legionellosis	Acute respiratory illness
	Leptospira	Leptospirosis	Jaundice, fever
	Pseudomonas	Infections in immunocompromised individuals	Urinary tract infections, respiratory system infections, dermatitis, soft tissue infections, bacteremia, and a variety of systemic infections
	Salmonella typhi	Typhoid fever	High fever, diarrhea, ulceration of the small intestine
	Salmonella	Salmonellosis	Diarrhea, dehydration
	Shigella		Bacterial dysentery
	Vibrio cholera	Cholera	Extremely heavy diarrhea, dehydration
	Yersinia enterocolitica	Yersinosis	Diarrhea
Protozoans	Balantidium coli	Balantidiasis	Diarrhea, dysentery
	Cryptosporidium	Cryptosporidiosis	Diarrhea
	Entamoeba histolytica	Ameobiasis (amoebic dysentery)	Prolonged diarrhea with bleeding, abscesses of the liver and small intestine
	Giardia lamblia	Giardiasis	Mild to severe diarrhea, nausea, indigestion
	Naegleria fowleri	Amoebic meningoencephalitis	Fatal disease; inflammation of the brain
Viruses	Adenovirus (31 types)	Respiratory disease	Eye infections, diarrhea
	Astroviruses	Gastroenteritis	Vomiting, diarrhea
	Enteroviruses (67 types, e.g., polio, echo, and Coxsackie viruses)	Gastroenteritis	Diarrhea. Heart anomalies and meningitis are long-term sequela and are very rare
	Hepatitis A and E	Infectious hepatitis	Jaundice, fever
	Caliciviruses (Norwalk- and Sapporo-like viruses)	Gastroenteritis	Vomiting, diarrhea
	Reovirus	Gastroenteritis	Vomiting, diarrhea
	Rotavirus	Gastroenteritis	Vomiting, diarrhea

Source: USEPA, 2001

Appendix D.1. 2008 Michigan List of Inland Beaches Monitored

	County	Water Body	Location
<u>1</u>	1 <u>Alcona</u>	Alcona Pond	1 Alcona Park East Campground
	2 Alcona	Alcona Pond	2 Alcona Pond West Campground
	3 Alcona	Brownlee Lake	3 Village of Lincoln Park
	4 Alcona	Hubbard Lake	4 Alcona Township Park
<u>2</u>	5 <u>Allegan</u>	Dumont Lake	1 Dumont Lake County Park Beach
	6 Allegan	Ely Lake	2 Ely Lake Campground Beach
	7 Allegan	Gun Lake	3 Gun Lake County Park Beach
	8 Allegan	Little John Lake	4 Little John Lake County Park Beach
	9 Allegan	Swan Creek Pond	5 Pine Point Campground Beach
<u>3</u>	10 <u>Antrim</u>	Central Lake	1 Thurston Park
	11 Antrim	Elsworth Lake	2 Wooden Shoe Park
	12 Antrim	Lake Bellaire	3 Richardi Park
	13 Antrim	Torch Lake	4 Day Park
	14 Antrim	Torch Lake	5 Torch River Bridge
<u>4</u>	15 <u>Arenac</u>	Oasis Lake	1 Oasis Lake County Park
<u>5</u>	16 <u>Barry</u>	Gun Lake	1 Main Beach - Day Use Area
	17 Barry	Gun Lake	2 Old Beach - Day Use Area
	18 Barry	Gun Lake	3 Yankee Springs Recreation Area Campground Beach
	19 Barry	Thornapple Lake	4 Charlton Park
<u>6</u>	20 <u>Bay</u>	Kawkawlin River	1 Boat Launch on Kawkawlin River
	21 Bay	Saginaw River	2 Vet's Park North Bay City
	22 Bay	Saginaw River	3 Vet's Park South River Road
<u>7</u>	23 <u>Charlevoix</u>	Thumb Lake	1 Thumb Lake Beach
	24 Charlevoix	Walloon Lake	2 Melrose Township Park
<u>8</u>	25 <u>Cheboygan</u>	Burt Lake	1 Burt Lake State Park
	26 Cheboygan	Burt Lake	2 Devoe Beach
	27 Cheboygan	Mullett Lake	3 Aloha State Park
<u>9</u>	28 <u>Chippewa</u>	Carp Lake	1 Trout Lake
	29 Chippewa	Dukes Lake	2 Dukes Lake
	30 Chippewa	Kinross Lake	3 Kinross Lake
	31 Chippewa	Monocle Lake	4 Monocle Lake
	32 Chippewa	Soldiers Lake	5 Soldiers Lake
<u>10</u>	33 <u>Clare</u>	Bertha Lake	1 Bertha Lake Beach
	34 Clare	Borrow Pit	2 Herrick County Park
	35 Clare	Budd Lake	3 Wilson Lake State Park
	36 Clare	Shingle Lake	4 Shingle Lake Park
	37 Clare	Silver Lake	5 Silver Lake Park
<u>11</u>	38 <u>Crawford</u>	Higgins Lake	1 North Higgins State Park

Appendix D.1. 2008 Michigan List of Inland Beaches Monitored

	County	Water Body	Location
<u>12</u>	39 <u>Eaton</u>	Fox Memorial Park Beach	1 Fox Memorial Park
<u>13</u>	40 <u>Emmet</u>	Crooked Lake	1 Little Traverse Township Beach
	41 Emmet	Larks Lake	2 Pioneer Picnic Park
	42 Emmet	Pickereel Lake	3 Camp Petosega
	43 Emmet	Pickereel Lake	4 Channel Beach
	44 Emmet	Walloon Lake	5 Resort Pike Road Beach
<u>14</u>	45 <u>Genesee</u>	Buell Lake	1 Boat Ramp at Buell Lake
	46 Genesee	Byram Lake	2 Clover Beach
	47 Genesee	Copneconic Lake	3 Camp Copneconic
	48 Genesee	Copneconic Lake	4 Copneconic Day Beach
	49 Genesee	Covenant Hill Camp	5 Covenant Hill Camp
	50 Genesee	Crooked Lake	6 Crooked Lake
	51 Genesee	Dollar lake	7 Dollar Lake
	52 Genesee	Fenton Lake	8 Township Hall
	53 Genesee	Hasler Lake	9 Hasler Lake Campground
	54 Genesee	Holloway Reservoir	10 Buttercup Beach
	55 Genesee	Kelly Lake	11 Kelly Lake
	56 Genesee	Lake Linda	12 Lake Linda
	57 Genesee	Mott Lake	13 Bluebell Beach
	58 Genesee	Myers Lake	14 Myers Lake
	59 Genesee	Pinewood Lake	15 Beach at Pinewood Lake
	60 Genesee	Silver Lake	16 City Park Beach
	61 Genesee	West Sister Lake	17 West Sister Lake
<u>15</u>	62 <u>Gladwin</u>	Cedar River	1 Gladwin City Park
	63 Gladwin	Pratt Lake	2 Pratt Lake
	64 Gladwin	Ross Lake	3 Beaverton City Park
<u>16</u>	65 <u>Gogebic</u>	Lake Gogebic	1 Gogebic County Park
	66 Gogebic	Lake Gogebic	2 Lake Gogebic State Park Beach
	67 Gogebic	Sunday Lake	3 Sunday Lake Beach
<u>17</u>	68 <u>Houghton</u>	Lake Roland	1 Twin Lakes State Park
<u>18</u>	69 <u>Iosco</u>	Cedar Lake	1 Greenbush Township Beach
	70 Iosco	Chain Lake	2 Chain Lake Beach
	71 Iosco	Foot Pond	3 Old Orchard Park
	72 Iosco	Long Lake	4 Long Lake Public Access
	73 Iosco	Loon Lake	5 Loon Lake Park
	74 Iosco	Sand Lake	6 Sand Lake - Sand Lake Road Access
	75 Iosco	Van Ettan Lake	7 Oscoda Township Park - Van Ettan Lake
<u>19</u>	76 <u>Isabella</u>	Chippewa River	1 Deerfield County Park
	77 Isabella	Coldwater Lake	2 Coldwater Park
	78 Isabella	Halls Lake	3 Halls Lake
<u>20</u>	79 <u>Kalamazoo</u>	Blue Lake	1 Cold Brook County Park

Appendix D.1. 2008 Michigan List of Inland Beaches Monitored

	County	Water Body	Location		
	80	Kalamazoo	Campbell Lake	2	Robert Morris Park
	81	Kalamazoo	Eagle Lake	3	Fort Custer Recreation Area Beach
	82	Kalamazoo	Gull Lake	4	Ross Township Park
	83	Kalamazoo	Hogsett Lake	5	Prairie View County Park
	84	Kalamazoo	Long Lake	6	Ramona Park
	85	Kalamazoo	Sunset Lake	7	Sunset Lake Park
	86	Kalamazoo	Swimmers Lake	8	Markin Glen County Park
	87	Kalamazoo	Woods Lake	9	Woods Lake Beach
<u>21</u>	88	Livingston	Bentley Lake	1	Camp Innisfree
	89	Livingston	Bishop Lake	2	Brighton State Recreation Area
	90	Livingston	Chenago Lake	3	Camp Talahi
	91	Livingston	Church Lake	4	Wildwood Ranch
	92	Livingston	Cook Lake	5	Taylor's Beach
	93	Livingston	Cordley Lake	6	Varsity Day Camp
	94	Livingston	Kent Lake	7	Island Lake Recreation Area - Kent Lake
	95	Livingston	Lake Chemung	8	Lake Chemung Outdoor Resort
	96	Livingston	Lake Walden	9	Waldenwoods Resort
	97	Livingston	Pleasant Lake	10	Howell Nature Center
	98	Livingston	Sandy Bottom Lake	11	Nazarene Camp
	99	Livingston	Spring Mill Pond	12	Island Lake Recreation Area
	100	Livingston	Thompson Lake	13	Howell City Park
	101	Livingston	Winans Lake	14	Lakelands Golf & Country Club
<u>22</u>	102	Macomb	Stoney Creek Lake-Impoundment	1	Stoney Creek Metropark-Baypoint Beach
	103	Macomb	Stoney Creek Lake-Impoundment	2	Stoney Creek Metropark-Eastwood Beach
<u>23</u>	104	Midland	Sanford Lake	1	Sanford Lake Park
<u>24</u>	105	Monroe	(Man-Made Pond)	1	Totem Pole Campground Pond
<u>25</u>	106	Muskegon	Bear Lake	1	Laketon Township Beach
	107	Muskegon	Big Blue Lake	2	Blue Lake County Park Beach
	108	Muskegon	Duck Lake	3	Duck Lake State Park Beach
	109	Muskegon	Fox Lake	4	Fox Lake Park Beach
	110	Muskegon	Half Moon Lake	5	Moore County Park Beach
	111	Muskegon	Mona Lake	6	Mona Lake Park Beach
	112	Muskegon	Mona Lake	7	Ross Park Beach
	113	Muskegon	Muskegon Lake	8	Harbor Towne Beach
	114	Muskegon	Muskegon Lake	9	Muskegon State Park - Muskegon Lake Side
	115	Muskegon	Muskegon Lake	10	Water Sports Park
	116	Muskegon	Twin Lake	11	Twin Lake County Park Beach
	117	Muskegon	West Lake	12	Paddley Park
	118	Muskegon	White Lake	13	Maple Park
	119	Muskegon	Wolf Lake	14	Sunset Park
	120	Muskegon	Wolf Lake	15	Wolf Lake County Park
<u>26</u>	121	Oakland	Adams Lake	1	Addison Oaks County Park
	122	Oakland	Big Peat Lake	2	Haas Lake Park #2

Appendix D.1. 2008 Michigan List of Inland Beaches Monitored

County	Water Body	Location		
123	Oakland	Big Seven Lake	3	Seven Lakes Park
124	Oakland	Bush Lake	4	Holly Township Beach
125	Oakland	Cass Lake	5	Dodge Park #4
126	Oakland	Cass Lake	6	Keego Harbor City Beach
127	Oakland	Cass Lake	7	Pontiac Yacht Club
128	Oakland	Charnwood Lake	8	Charnwood
129	Oakland	Clear Lake	9	Lakeland Improvement Association - Keith Street
130	Oakland	Crooked Lake	10	Independence Oaks County Park
131	Oakland	Deer Lake	11	Deer Lake Estates
132	Oakland	Deer Lake	12	Independence Township Village Beach
133	Oakland	Elizabeth Lake	13	Bloomfield
134	Oakland	Elizabeth Lake	14	Elizabeth Lake Estates Improvement Association
135	Oakland	Elizabeth Lake	15	Elizabeth Lakeshore
136	Oakland	Elizabeth Lake	16	Elizabeth Shores
137	Oakland	Elizabeth Lake	17	Rangate Park
138	Oakland	Elizabeth Lake	18	Walters
139	Oakland	Fish Lake	19	Camp Ohiyesa - North
140	Oakland	Geneva Lake	20	Lakewood Farms - Crocus Street
141	Oakland	Green Lake	21	Bay Court Park
142	Oakland	Green Lake	22	Camp Wathana
143	Oakland	Green Lake	23	Clear Water Resort
144	Oakland	Haas Lake	24	Haas Lake Park #1
145	Oakland	Haas Lake	25	Haas Lake Park #3
146	Oakland	Handsome Lake	26	Camp Oakland - Summer
147	Oakland	Heather Lake	27	Heather Lake Estates
148	Oakland	Heron Lake	28	Holly Recreation Area - Heron Beach
149	Oakland	Huntoon Lake	29	Broadway Civic Association
150	Oakland	Huntoon Lake	30	Burlingham Lake Park I
151	Oakland	Huntoon Lake	31	Burlingham Lake Park II
152	Oakland	Huntoon Lake	32	Huntoon Village
153	Oakland	Kent Lake	33	Kensington - Maple Beach
154	Oakland	Kent Lake	34	Kensington - Martindale Beach
155	Oakland	Long Lake	35	Bunny Run C.C.
156	Oakland	Long Lake	36	Christ the King Church Camp
157	Oakland	Loon Lake	37	Sandy Beach
158	Oakland	Lower Trout	38	Bald Mountain Recreation Area
159	Oakland	Maceday Lake	39	Mountain View C.C. Subdivision
160	Oakland	Maceday Lake	40	Whitfield-Maceday Association - North
161	Oakland	Mill Pond	41	Davisburg Village Beach (Hart Community Center)
162	Oakland	No Name	42	Thelma Spencer Park
163	Oakland	Orchard lake	43	Country Club (500 West Shore Drive)
164	Oakland	Orion Lake	44	Greens Park Village Beach
165	Oakland	Phillips Lake	45	Camp Dearborn - Lake #1
166	Oakland	Phillips Lake	46	Camp Dearborn - Lake #5
167	Oakland	Phipps Lake	47	Camp Maas - Rodecker
168	Oakland	Phipps Lake	48	Camp Maas - Sobell Beach
169	Oakland	Pontiac Lake	49	Pontiac Recreation Area
170	Oakland	Prince Lake	50	Upland Hills Farm
171	Oakland	Proud Lake	51	Proud Lake Recreation Area Campground

Appendix D.1. 2008 Michigan List of Inland Beaches Monitored

County	Water Body	Location		
172	Oakland	Reed Lake	52	Reed Lake Property Owners
173	Oakland	Round Lake	53	Scripter Village Park Township Beach
174	Oakland	Sand Lake	54	Seven Lakes State Park - Campground
175	Oakland	Scotch Lake	55	Scotch Lake Residents
176	Oakland	Square Lake	56	Pleasant View Subdivision
177	Oakland	Square Lake	57	Pleasant View Subdivision - Kempster Street
178	Oakland	Stewart Lake	58	Groveland Oaks County Park - Paradise Beach
179	Oakland	Stony Lake	59	Stony Lake Park
180	Oakland	Sun Lake	60	Finnish Day Camp
181	Oakland	Sylvan Lake	61	Cunningham Park
182	Oakland	Sylvan Lake	62	Ferndale
183	Oakland	Sylvan Lake	63	Lakeview
184	Oakland	Sylvan Lake	64	Pioneer Highlands
185	Oakland	Sylvan Lake	65	Sylvan Shores Improvement Association
186	Oakland	Teeple Lake	66	Teeple Lake Recreation Area - Highland State Park
187	Oakland	Tipsico Lake	67	Brown's Landing Mobile Home Park
188	Oakland	Tommys Lake	68	Camp Agawam Boy Scout Camp
189	Oakland	Voorheis Lake	69	Keatington Subdivision - Eaton Gate - Off Baldwin
190	Oakland	Voorheis Lake	70	Keatington Subdivision - Joslyn Court
191	Oakland	Walled Lake	71	E.V. Mercer City Beach
192	Oakland	Walled Lake	72	Lakeshore Park
193	Oakland	Walnut Lake	73	Bloomfield Parks & Recreation/West Hills H.S.
194	Oakland	Walnut Lake	74	Bloomfield Square Beach Association
195	Oakland	Walnut Lake	75	Lone Pine Association
196	Oakland	Walnut Lake	76	Walnut Lake Estates
197	Oakland	Walnut Lake	77	Walnut Lake Property Owners Sub #1
198	Oakland	Walters Lake	78	Sunny Beach #1 - Eston Road
199	Oakland	Watkins Lake	79	Whitney Street
200	Oakland	Wildwood Lake	80	Holly Recreation Area - Wildwood Beach
201	Oakland	Wing Lake	81	Wing Lake Farms Association
202	Oakland	Wing Lake	82	Wing Lake Property Owners Association
<u>27</u>	Ogemaw	Devoe Lake	1	Rifle River Recreation Area
	Ogemaw	Grousehaven Lake	2	Rifle River Recreation Area Campground Beach
	Ogemaw	Grousehaven Lake	3	Rifle River Recreation Area Day Use Area
	Ogemaw	Hardwood Lake	4	Hardwood Lake
	Ogemaw	Skidway Lake	5	Skidway Lake
<u>28</u>	Ontonagon	Lake Gogebic	1	Bergland Township Park
	Ontonagon	Lake Gogebic	2	Ontonagon County Park
<u>29</u>	Osceola	Big Lake	1	Crittenden Park
	Osceola	Center Lake	2	Center Lake Park
	Osceola	Muskegon River	3	Crawford Park
	Osceola	Rose Lake	4	Rose Lake County Park
	Osceola	Sunrise Lake	5	Sunrise Lake Park
<u>30</u>	Oscoda	Perry Lake	1	Comins Township Park
	Oscoda	Smith Lake	2	Oscoda County Park

Appendix D.1. 2008 Michigan List of Inland Beaches Monitored

County	Water Body	Location
<u>31</u> 217 Otsego	Bear Lake	1 Bear Lake State Forest Campground
218 Otsego	Big Lake	2 Big Lake
219 Otsego	Otsego Lake	3 Arbutus Beach
220 Otsego	Otsego Lake	4 Otsego County Park
221 Otsego	Otsego Lake	5 Otsego Lake State Park North
222 Otsego	Otsego Lake	6 Otsego State Park
223 Otsego	Otsego Lake	7 WahWahSoo Beach
224 Otsego	Pickeral Lake	8 Pickeral Lake State Forest Campground
<u>32</u> 225 Ottawa	Crockery Lake	1 Grose Park
226 Ottawa	Georgetown Lake	2 Georgetown Community Park
227 Ottawa	Lake Macatawa	3 Dunton Park
228 Ottawa	Lake Macatawa	4 Fallen Leaf Park
229 Ottawa	Lake Macatawa	5 Holland State Park
230 Ottawa	Maplewood Lake	6 Maplewood Lake Park
231 Ottawa	Pottawattomie Bayou	7 Pottawattomie Park
232 Ottawa	Spring Lake	8 Lakeside Beach
<u>33</u> 233 Roscommon	Higgins Lake	1 Gerrish Township Park
234 Roscommon	Higgins Lake	2 South Higgins Lake State Park
235 Roscommon	Houghton Lake	3 Denton Township Public Beach
236 Roscommon	Houghton Lake	4 Houghton Lake Heights
237 Roscommon	Lake St. Helen	5 Richfield Township Public Fishing Site
<u>34</u> 238 St. Clair	Beechgrove Lake	1 Emmett K.O.A.
239 St. Clair	Fort Trodd Lake	2 Fort Trodd Campground North
240 St. Clair	Fort Trodd Lake	3 Fort Trodd South
241 St. Clair	Kimball Pond	4 Kimball Township Pond
242 St. Clair	Ruby Campground Pond	5 Ruby Campground
<u>35</u> 243 St. Joseph	Cade Lake	1 Cade Lake Beach
244 St. Joseph	Palmer Lake	2 Palmer Lake Beach
245 St. Joseph	Sand Lake	3 Nottawa Park
<u>36</u> 246 Washtenaw	Bruin Lake	1 Pinckney Recreation Area
247 Washtenaw	Half Moon Lake	2 Pinckney Recreation Area
248 Washtenaw	Independence Lake	3 Independence Lake County Park
249 Washtenaw	Silver Lake	4 Pinckney Recreation Area
250 Washtenaw	Sugarloaf Lake	5 Waterloo Recreation Area
<u>37</u> 251 Wayne	Belleville Lake	1 Van Buren Township Park
252 Wayne	Rouge River	2 Phoenix Lake
253 Wayne	Rouge River	3 Wilcox Lake
<u>38</u> 254 Wexford	Billings Lake	1 Manton Park
255 Wexford	Lake Cadillac	2 Cadillac City Dock
256 Wexford	Lake Cadillac	3 City Park
257 Wexford	Lake Cadillac	4 Kenwood Park

Appendix D.1. 2008 Michigan List of Inland Beaches Monitored

County	Water Body	Location
258 Wexford	Lake Meauwataka	5 Colfax Township Park
259 Wexford	Lake Mitchell	6 Mitchell State Park

Appendix D.2. 2008 Michigan List of Inland Beaches NOT Monitored

	County	Water Body	Location
<u>1</u>	1 <u>Alcona</u>	Brownlee Lake	Brownlee Lake - Village of Lincoln Park
<u>2</u>	2 <u>Alpena</u>	Beaver Lake	Beaver Lake Park
	3 Alpena	Long Lake	Long Lake Day Use
	4 Alpena	Long Lake	Long Lake Park
<u>3</u>	5 <u>Antrim</u>	Torch Lake	Eastport
	6 Antrim	Torch River	Torch River Sand Bar
<u>4</u>	7 <u>Arenac</u>	Au Gres River	DNR Access-Au Gres River
	8 Arenac	Flint Park Hunt Club Lake	Flint Park Hunt Club
	9 Arenac	Man-Made Pond	Big Bend Campground
	10 Arenac	Man-Made Pond	Outdoor Adventures
	11 Arenac	Pine River	Pine River Public Access
<u>5</u>	12 <u>Barry</u>	Gull Lake	Prairieville Township Park
<u>6</u>	13 <u>Benzie</u>	Crystal Lake	Bellows
	14 Benzie	Crystal Lake	South Shore near Beulah
<u>7</u>	15 <u>Berrien</u>	Paw Paw Lake	Paw Paw Lake
	16 Berrien	St. Joseph River	Bertrand Park
	17 Berrien	St. Joseph River	Niles - French Paper
	18 Berrien	St. Joseph River	Niles - Marmont
<u>8</u>	19 <u>Branch</u>	First Lake	Quincy Park
	20 Branch	Messenger Lake	Memorial Park
<u>9</u>	21 <u>Calhoun</u>	Duck Lake	Springport
	22 Calhoun	Goguc Lake	Willard Beach in Battle Creek
<u>10</u>	23 <u>Charlevoix</u>	Huffman Lake	Hudson Township Park
<u>11</u>	24 <u>Cheboygan</u>	Black Lake	Black Lake S.F.C.G.
	25 Cheboygan	Black Lake	Bluffs Beach
	26 Cheboygan	Burt Lake	Hoppie's Launch
	27 Cheboygan	Burt Lake	Maple Bay Park
	28 Cheboygan	Douglass Lake	Ryder's Landing
	29 Cheboygan	Mullett Lake	Boy Scout Launch
	30 Cheboygan	Mullett Lake	Foot Road Park
	31 Cheboygan	Mullett Lake	Grand View Beach
	32 Cheboygan	Mullett Lake	Hobert's Launch
	33 Cheboygan	Mullett Lake	Orchard Beach
	34 Cheboygan	Mullett Lake	Polish Line Beach
	35 Cheboygan	Mullett Lake	Topinabee Park
	36 Cheboygan	Webber Lake	Webber Lake State Park

Appendix D.2. 2008 Michigan List of Inland Beaches NOT Monitored

	County	Water Body	Location
12 37	<u>Chippewa</u>	Caribou Lake	Caribou Lake
13 38	<u>Clare</u>	Arnold Lake	Arnold Lake Beach
39	Clare	Cranberry lake	Cranberry Lake South
40	Clare	Crooked Lake	Crooked Lake Beach
41	Clare	Crooked Lake	Hillcrest Public Landing
42	Clare	Doc and Tom Lake	Lake of the Pines
43	Clare	Dodge Lake	Dodge Lake Beach
44	Clare	George Lake	Lake George Public Landing
45	Clare	Grass Lake	Sandy Shores Beach
46	Clare	Hayes Lake (Cranberry Lake)	Oak Hills Children's Camp
47	Clare	Lilly Lake	Lilly Lake Beach
48	Clare	Long Lake	Long Lake Beach
49	Clare	Muskegon River	Muskegon River Township Park
50	Clare	Sand Lake	Sand Lake Beach
51	Clare	Shamrock Lake	City of Clare Park
52	Clare	Townline Lake	Cedar Shores Beach
14 53	<u>Clinton</u>	Lake Ovid	Sleepy Hollow State Park Beach
15 54	<u>Eaton</u>	Grand River	Lincoln Brick Park
16 55	<u>Emmet</u>	Crooked Lake	Oden Beach
17 56	<u>Genesee</u>	Barnum Lake	Barnum Lake
57	Genesee	Crane Lake	Crane Lake Beach
58	Genesee	Fenton Lake	DNR Boat Dock-Fenton Lake
59	Genesee	Fenton Lake	Fenton Lake Marina
60	Genesee	Flagstone Point	Flagstone Point Beach
61	Genesee	Golden Rod Lake	Golden Rod Beach
62	Genesee	Hasler Lake	Beach at Hasler Lake
63	Genesee	Holloway Reservoir	Walleye Pike Dock
64	Genesee	Kearsley Reservoir	Kearsley Reservoir Beach
65	Genesee	Lake Helene	Lake Helene Beach
66	Genesee	Lake Ponemah	At Drain
67	Genesee	Lake Ponemah	DNR Boat Launch at Lake Ponemah
68	Genesee	Lake Shinangaug	Lake Shinangaug
69	Genesee	Linden Mill Pond	Linden Mill Pond Beach
70	Genesee	Lobdell Lake	DNR Boat Launch at Lobdell Lake
71	Genesee	Loon Lake	Loon Lake Beach
72	Genesee	Marl Lake	Marl Lake Beach
73	Genesee	McCaslin Lake	McCaslin Lake Beach
74	Genesee	McKane Lake	McKane Lake Beach
75	Genesee	Mott Lake	Bluegill Boat Ramp
76	Genesee	Mott Lake Stepping Stone	Mott Lake Stepping Stone Beach
77	Genesee	Pine Lake	Pine Lake Beach
78	Genesee	Silver Lake	Silver Lake Marina

Appendix D.2. 2008 Michigan List of Inland Beaches NOT Monitored

	County	Water Body	Location	
	79	Genesee	Smokerise Lake	Smokerise Beach
	80	Genesee	Squaw Lake	Squaw Lake Beach
	81	Genesee	Thread Lake	Thread Lake Beach
<u>18</u>	82	<u>Gladwin</u>	Cedar River	Cedar River Campground Beach
	83	Gladwin	Cedar River	Gladwin North Park
	84	Gladwin	Flowing Well/Pond	Gilman Springs Swimming Area
	85	Gladwin	Hoister Lake	Hoister Lake Beach
	86	Gladwin	House Lake	House Lake
	87	Gladwin	Lake Four	Lake Four
	88	Gladwin	Lake Lancer	Sugar Springs/Lake Lancer
	89	Gladwin	Lyle Drain/Tobacco River	Lost Haven Beach
	90	Gladwin	Secord Lake	Secord Lake
	91	Gladwin	Secord Lake	Secord Lake - East
	92	Gladwin	Secord Lake	West River Drive Boat Launch
	93	Gladwin	Tittabawassee River	Estey Road Access
	94	Gladwin	Tittabawassee River	Gilman Springs Canoe Launch
	95	Gladwin	Tittabawassee River	Good News Camp
	96	Gladwin	Tittabawassee River	Pine Street Public Access
	97	Gladwin	Trout Lake	Trout Lake SFCG
	98	Gladwin	Wiggins Lake North	Wiggins Lake DNR Boat Launch
	99	Gladwin	Wiggins Lake South	Wiggins Lake - At Clendening Road
	100	Gladwin	Wixon Lake	Wixon Lake - West
<u>19</u>	101	<u>Grand Traverse</u>	Long Lake (AKA Mickey Lake)	Gilbert Beach
	102	Grand Traverse	Long Lake (AKA Mickey Lake)	Taylor Park
<u>20</u>	103	<u>Hillsdale</u>	Baw Beese Lake	Sandy Beach
	104	Hillsdale	Bird lake	Bird Lake Beach
<u>21</u>	105	<u>Ingham</u>	Burchfield Pond	Burchfield Park
	106	Ingham	Hawk Island	Hawk Island County Park
	107	Ingham	Lake Lansing	Lake Lansing Park South
	108	Ingham	Valhalla Pond	Valhalla Park
<u>22</u>	109	<u>Iosco</u>	Foote Pond	Footsite Park
<u>23</u>	110	<u>Isabella</u>	Millpond	Millpond Park
<u>24</u>	111	<u>Jackson</u>	Clark Lake	Clark Lake County Park
	112	Jackson	Clear Lake	Clear Lake County Park
	113	Jackson	Gilletts Lake	Gilletts Lake County Park
	114	Jackson	Grass Lake	Grass Lake County Park
	115	Jackson	Lime Lake	Lime Lake County Park
	116	Jackson	Little Wolf Lake	Little Wolf Lake County Park
	117	Jackson	Pleasant Lake	Pleasant Lake County Park & Campground
	118	Jackson	Portage Lake	Portage Lake County Park

Appendix D.2. 2008 Michigan List of Inland Beaches NOT Monitored

County	Water Body	Location
119 Jackson	Round Lake	Round Lake County Park
120 Jackson	Swains Lake	Swains Lake County Park
121 Jackson	Vandercook Lake	Vandercook Lake County Park
122 Jackson	Vineyard Lake	Vineyard Lake County Park
<u>25</u> 123 <u>Kalamazoo</u>	Timber Lake	Timber Lake Campground
<u>26</u> 124 <u>Kent</u>	Lincoln Lake	Lincoln Lake Baptist Camp
125 Kent	Lincoln Lake	Lincoln Pines Resort
126 Kent	Long Lake	Long Lake County Park
127 Kent	Myers Lake	Myers Lake County Park
128 Kent	Reeds Lake	Collins Park
129 Kent	Scalley Lake	Scalley Lake Park
130 Kent	Versluis Lake	Versluis Park
131 Kent	Wabasis Lake	Wabasis Lake County Park
<u>27</u> 132 <u>Leelanau</u>	Lake Leelanau	Leelanau Township Park Beach
133 Leelanau	Lake Leelanau	Nedow's (Barthalomew) Beach
134 Leelanau	Lake Leelanau	Popp Road End
135 Leelanau	South Bar Lake	South Bar Lake - South End
<u>28</u> 136 <u>Livingston</u>	Dibrova Lake	Green Valley Camp
137 Livingston	Haynor Lake	Pine Hills Camp
138 Livingston	Pickerel Lake	Providence Medical Center
<u>29</u> 139 <u>Marquette</u>	Dead River Reservoir	Marquette Tourist Park Beach
140 Marquette	Shiras Pool	Shiras Swimming Area
<u>30</u> 141 <u>Menominee</u>	Hermansville Lake	Hermansville Beach
142 Menominee	Shakey Lakes	Shakey Lakes Campground
<u>31</u> 143 <u>Monroe</u>	Camp Lord Willing Pond	Camp Lord Willing
144 Monroe	Covered Wagon Campground Pond	Covered Wagon Campground
145 Monroe	Heath Beach Pond	Heath Beach
146 Monroe	K.C. Campground Pond	K.C. Campground
147 Monroe	Monroe KOA Campground Pond	Monroe K.O.A. Campground
148 Monroe	Pirollis Campground Pond	Pirolli's Campground
149 Monroe	The Vine Campground Pond	The Vine
150 Monroe	Wilderness Retreat Campground Pond	Wilderness Retreat Campground
<u>32</u> 151 <u>Montmorency</u>	Clear Lake	Clear Lake Day Use
152 Montmorency	Clear Lake	Clear Lake State Park
153 Montmorency	Crooked Lake	Crooked Lake Beach
154 Montmorency	East Twin Lake	East Twin Beach/Albert Township Park
155 Montmorency	Ess Lake	Ess Lake State Campground
<u>33</u> 156 <u>Oakland</u>	Allen Lake	Fox Bay Civic Association

Appendix D.2. 2008 Michigan List of Inland Beaches NOT Monitored

County	Water Body	Location	
157	Oakland	Avon Lake	Avon Lakes Beach #1
158	Oakland	Avon Lake	Avon Lakes Beach #2
159	Oakland	Bass Lake	Idlewild Subdivision
160	Oakland	Bogie Lake	Bogie Lake Property Owners - Beryl Drive
161	Oakland	Bogie Lake	Pinecrest Shores
162	Oakland	Brendel Lake	Brendle Heights - Hillwood
163	Oakland	Brendel Lake	Lakewood Village
164	Oakland	Brendel Lake	Pawlaks Campground
165	Oakland	Carpenter Lake	Lakeview Recreation
166	Oakland	Carpenter Lake	Silver Valley Subdivision
167	Oakland	Cass Lake	Cass Lake Woods
168	Oakland	Cass Lake	Keego Harbor Trailer Park
169	Oakland	Cass Lake	Sylvan-on-the-Lakes
170	Oakland	Cass Lake	Willow Beach Subdivision
171	Oakland	Cedar Island Lake	Cedar Crest Subdivision
172	Oakland	Cedar Island Lake	Sunset Subdivision
173	Oakland	Commerce Lake	Log Cabin Subdivision
174	Oakland	Cranberry Lake	Cranberry Lake Village
175	Oakland	Cranberry Lake	Cranberry Lake Village
176	Oakland	Crescent Lake	Crescent Highlands
177	Oakland	Crescent Lake	Crescent Lake Park
178	Oakland	Darb Lake	Mission Springs Subdivision
179	Oakland	Davis Lake	Meagher Park/Woodland Manor
180	Oakland	Eagle Lake	Eagle Lake Road
181	Oakland	Eagle Lake	Lakeland Estates
182	Oakland	Ekelund Lake	Camp Gordanwood
183	Oakland	Elizabeth Lake	Cass-Elizabeth Heights
184	Oakland	Elizabeth Lake	Terrace
185	Oakland	Emerald Lake	Emerald Lake
186	Oakland	Fox Lake	Cloister-on-the-Lakes
187	Oakland	Geneva Lake	Lakewood Farms - Sharon Street
188	Oakland	Green Lake	Green Acres/Green Valley Park
189	Oakland	Hammond Lake	Hammond Estates
190	Oakland	Harvey Lake	Harvey Lake Estates
191	Oakland	Harvey Lake	Harvey Lake Heights
192	Oakland	Indian Lake	Indian Lake Improvement Association
193	Oakland	Lakeville Lake	Doll's Dock (Skip's Landing)
194	Oakland	Long Lake	Annex 1
195	Oakland	Long Lake	Twin Shores Subdivision
196	Oakland	Loon Lake	Birch Park
197	Oakland	Loon Lake	Indianwood
198	Oakland	Lotus Lake	Harris Park
199	Oakland	Lotus Lake	Lotus Park
200	Oakland	Lotus Lake	Mountain View
201	Oakland	Lower Straits	Maple Point
202	Oakland	Lower Straits Lake	Lower Straits Beach Club
203	Oakland	Lower Straits Lake	Shores at Bay Point

Appendix D.2. 2008 Michigan List of Inland Beaches NOT Monitored

County	Water Body	Location	
204	Oakland	Maceday Lake	Whitfield-Maceday Association - South
205	Oakland	Marion Lake	Locklin Pines Association
206	Oakland	Meadow Lake	Meadow Lake Association
207	Oakland	Middle Straits Lake	Crystal Echo
208	Oakland	Middle Straits Lake	Crystal Echo (The Point)
209	Oakland	Middle Straits Lake	Stony Beach
210	Oakland	Middle Straits Lake	Tripps Sub. Park
211	Oakland	Middle Straits Lake	Twin Beach Park
212	Oakland	Middle Straits Lake	West Acres
213	Oakland	Morgan Lake	Lake Angelus Lakeview Estates
214	Oakland	Mud Lake	Rose Hill Center
215	Oakland	Narrin Lake	Camp Narrin
216	Oakland	Neva Lake	Lakewood Village Subdivision
217	Oakland	Oakland Lake	Bird Island Subdivision
218	Oakland	Oakland Lake	Lake Oakland Heights
219	Oakland	Oakland Lake	Lake Oakland Shores
220	Oakland	Orchard Lake	St. Mary's Park
221	Oakland	Orion Lake	Lake Orion Heights
222	Oakland	Orion Lake	Sunset Club
223	Oakland	Pine Lake	Pine Lake Manor
224	Oakland	Pleasant Lake	Pleasant Lake Highlands
225	Oakland	Pleasant Lake	Pleasant Lake Manor
226	Oakland	Pleasant Lake	Pleasant Lake Woods
227	Oakland	Round Lake	Family Park
228	Oakland	Rowe Lake	Jacksina Subdivision
229	Oakland	Sandshores	Emerald Lake Homeowners Assoc-Little Creek Road
230	Oakland	Sherwood Lake	Ledgewood
231	Oakland	Sherwood Lake	Ravinewood East
232	Oakland	Sherwood Lake	Ravinewood West
233	Oakland	Sherwood Lake	Sherwood Boat Ramp
234	Oakland	Sherwood Lake	Sherwood Property Owners
235	Oakland	Silver Lake	Silver Hill Road
236	Oakland	Sugden Lake	Oakridge Subdivision
237	Oakland	Tan Lake	Mary K. Subdivision
238	Oakland	Union Lake	Alpha Beach
239	Oakland	Union Lake	Burley and Barnsbury Streets
240	Oakland	Union Lake	Union Lake Beach Club
241	Oakland	Union Lake	Union Lake Heights Subdivision #2
242	Oakland	Upper Pettibone Lake	657 Dunleavy
243	Oakland	Upper Pettibone Lake	Oak Heights Improvement Association-3015 Lakeview
244	Oakland	Upper Straits Lake	Banker's Subdivision
245	Oakland	Upper Straits Lake	Bayside Beach Association
246	Oakland	Upper Straits Lake	Outlet A
247	Oakland	Upper Straits Lake	Shady Beach
248	Oakland	Van Norman Lake	Waterford Hill
249	Oakland	Walled Lake	Beachwalk Apartments
250	Oakland	Walnut Lake	Finnish American Club of Detroit

Appendix D.2. 2008 Michigan List of Inland Beaches NOT Monitored

County	Water Body	Location
251 Oakland	Walnut Lake	North Cove
252 Oakland	Walnut Lake	Shenandoah Farms Association
253 Oakland	Walnut Lake	Walnut Lake Hills Corporation
254 Oakland	Walnut Lake	Walnut Lake Park
255 Oakland	Walters Lake	Sunny Beach #2 - Clarkston Road
256 Oakland	Watkins Lake	Heitch Street
257 Oakland	Watkins Lake	Lakeland Association #1
258 Oakland	Watkins Lake	Lakeland Association #2
259 Oakland	Watkins Lake	Lanarh Street
260 Oakland	Waumegah Lake	Lake Waumegah Homeowners Association
261 Oakland	Whipple Lake	Whipple Shores Subdivision
262 Oakland	White Lake	Rolling Acres
263 Oakland	White Lake	Stanley Beach
264 Oakland	Wing Lake	Westwood Manor
265 Oakland	Woodhull Lake	Woodhull Lake Civic Association
<u>34</u> 266 <u>Ogemaw</u>	Lake George	Lake George Campground
<u>35</u> 267 <u>Osceola</u>	Center Lake	Center Lake Bible Camp
268 Osceola	Center Lake	Kettunen Center
269 Osceola	Diamond Lake	Diamond Lake
270 Osceola	Diamond Lake	DNR Access Diamond Lake
271 Osceola	Hicks Lake	DNR Access Hicks Lake
272 Osceola	McCoy Lake	DNR Access McCoy Lake
273 Osceola	Muskegon River	City of Ewart Campground
274 Osceola	Muskegon River	Hersey Road Access
275 Osceola	Rose Lake	Rose Lake Youth Camp
276 Osceola	Todd Lake	DNR Access Todd Lake
277 Osceola	Wells Lake	DNR Access Wells Lake
<u>36</u> 278 <u>Oscoda</u>	Mio Pond	Mio Pond Campground
<u>37</u> 279 <u>Otsego</u>	Otsego Lake	Arbutus Beach
<u>38</u> 280 <u>Presque Isle</u>	Black Lake	Onaway State Park
281 Presque Isle	Grand Lake	Grand Lake Northwest
282 Presque Isle	Grand Lake	Grand Lake Public Access
283 Presque Isle	Lake May	Lake May Public Access
284 Presque Isle	Ocquoec River	Millersburg Park
285 Presque Isle	Ocquoec River	Ocquoec Falls Park
286 Presque Isle	Shoepac Lake	Shoepac Lake Camp Ground
287 Presque Isle	Sunken Lake	Sunken Lake County Park
288 Presque Isle	Tomahawk Lake	Tomahawk Lake Camp Ground
<u>39</u> 289 <u>Roscommon</u>	Backus Pond	Backus Township Park
290 Roscommon	Bambi Lake/Sinkhole Lake	Bambi Lake Camp
291 Roscommon	Higgins Lake	Beaver Creek Road End

Appendix D.2. 2008 Michigan List of Inland Beaches NOT Monitored

	County	Water Body	Location
	292 Roscommon	Higgins Lake	DNR Public Fishing Site
	293 Roscommon	Higgins Lake	Higgins Lake Public Fishing Site
	294 Roscommon	Higgins Lake	Kelly Beach
	295 Roscommon	Higgins Lake	Phoenix Park
	296 Roscommon	Higgins Lake	Sam-O-Set Road End
	297 Roscommon	Houghton Lake	Houghton Lake DNR Boat Launch and Park
	298 Roscommon	Houghton Lake	Houghton Lake Public Fishing Site
	299 Roscommon	Houghton Lake	Houghton Lake State Forest Campground
	300 Roscommon	Houghton Lake	Old 27 DNR Access
	301 Roscommon	Owens Lake	Camp Co-Be-Ac
<u>40</u>	<u>Saginaw</u>	Haithco Lake	Haithco Recreation Area
	303 Saginaw	Lake of Dreams	Lake of Dreams Campground
<u>41</u>	<u>Tuscola</u>	Murphy Lake	Murphy Lake

Appendix E.1. 2008 Great Lakes Beaches Monitored

	County	Water Body	Location
<u>1</u>	1 <u>Alcona</u>	Lake Huron	1 Harrisville State Park
<u>2</u>	2 <u>Alger</u>	Lake Superior	2 Sand Point
<u>3</u>	3 <u>Allegan</u>	Lake Michigan	1 Douglas Beach
	4 Allegan	Lake Michigan	2 Oval Beach
	5 Allegan	Lake Michigan	3 Pier Cove Beach
	6 Allegan	Lake Michigan	4 West Side County Park Beach
<u>4</u>	7 <u>Alpena</u>	Lake Huron	1 Blair Street Park
	8 Alpena	Lake Huron	2 Michekewis Beach
	9 Alpena	Lake Huron	3 Ossineke Beach
	10 Alpena	Lake Huron	4 Starlite Beach
	11 Alpena	Lake Huron	5 Thompson Park
<u>5</u>	12 <u>Antrim</u>	Lake Michigan	1 Antrim County Day Park South
	13 Antrim	Lake Michigan	2 Banks Township Park
	14 Antrim	Lake Michigan	3 Barnes Park
	15 Antrim	Lake Michigan	4 Elk Rapids
	16 Antrim	Lake Michigan	5 Veterans Memorial Park
<u>6</u>	17 <u>Arenac</u>	Saginaw Bay-Lake Huron	1 Arenac County Park
	18 Arenac	Saginaw Bay-Lake Huron	2 Bessinger Road Beach
	19 Arenac	Saginaw Bay-Lake Huron	3 Dyer Road Beach
	20 Arenac	Saginaw Bay-Lake Huron	4 Foster Road Beach
	21 Arenac	Saginaw Bay-Lake Huron	5 Hammel Beach Road Access
	22 Arenac	Saginaw Bay-Lake Huron	6 Singing Bridge Beach
	23 Arenac	Saginaw Bay-Lake Huron	7 Twining Road Beach
	24 Arenac	Saginaw Bay-Lake Huron	8 Whites Beach
<u>7</u>	25 <u>Baraga</u>	Keweenaw Bay/Lake Superior	1 L'Anse Waterfront Park
<u>8</u>	26 <u>Bay</u>	Saginaw Bay-Lake Huron	1 Bay City State Recreation Area
	27 Bay	Saginaw Bay-Lake Huron	2 Brissette Beach Township Park
	28 Bay	Saginaw Bay-Lake Huron	3 Pinconning Park
	29 Bay	Saginaw Bay-Lake Huron	4 South Linwood Beach Township Park
	30 Bay	Saginaw Bay-Lake Huron	5 Wenona Beach
<u>9</u>	31 <u>Benzie</u>	Lake Michigan	1 Frankfort - Anchor Road Beach
<u>10</u>	32 <u>Berrien</u>	Lake Michigan	1 Cherry Beach
	33 Berrien	Lake Michigan	2 Grand Beach
	34 Berrien	Lake Michigan	3 Hagar Township Park
	35 Berrien	Lake Michigan	4 Harbert Beach
	36 Berrien	Lake Michigan	5 Jean Klock Park
	37 Berrien	Lake Michigan	6 Lincoln Township Park
	38 Berrien	Lake Michigan	7 Lions Park
	39 Berrien	Lake Michigan	8 Michiana Village
	40 Berrien	Lake Michigan	9 New Buffalo City
	41 Berrien	Lake Michigan	10 Rocky Gap

Appendix E.1. 2008 Great Lakes Beaches Monitored

	County	Water Body	Location
	42 Berrien	Lake Michigan	11 Silver Beach
	43 Berrien	Lake Michigan	12 Tiscornia Park
	44 Berrien	Lake Michigan	13 Warren Dunes Beach
	45 Berrien	Lake Michigan	14 Weko Beach
<u>11</u>	<u>Charlevoix</u>	Lake Charlevoix	1 Depot Beach
	47 Charlevoix	Lake Charlevoix	2 East Jordan Tourist Park
	48 Charlevoix	Lake Charlevoix	3 Elm Point Beach
	49 Charlevoix	Lake Charlevoix	4 Ferry Beach
	50 Charlevoix	Lake Charlevoix	5 Glenwood Beach
	51 Charlevoix	Lake Charlevoix	6 Hayes Township Park
	52 Charlevoix	Lake Charlevoix	7 Peninsula Beach
	53 Charlevoix	Lake Charlevoix	8 Tannery Park
	54 Charlevoix	Lake Charlevoix	9 Washington Street Beach
	55 Charlevoix	Lake Charlevoix	10 Whiting Park Beach
	56 Charlevoix	Lake Charlevoix	11 Young State Park Beach
	57 Charlevoix	Lake Michigan	12 Fisherman's Island State Park
	58 Charlevoix	Lake Michigan	13 Lake Michigan Beach
	59 Charlevoix	Lake Michigan	14 Norwood Park
<u>12</u>	<u>Cheboygan</u>	Lake Huron	1 Cheboygan City Park
	61 Cheboygan	Lake Huron	2 Cheboygan State Park Duncan Bay
	62 Cheboygan	Lake Huron	3 Mackinaw City Lighthouse Park
	63 Cheboygan	Lake Huron	4 Wawatam City Park
<u>13</u>	<u>Chippewa</u>	Lake Superior	1 Bayview Campground
	65 Chippewa	Lake Superior	2 Big Pines Beach
	66 Chippewa	Lake Superior	3 Brimley State Park
	67 Chippewa	Lake Superior	4 Sherman Park
	68 Chippewa	St. Mary's River	5 Four Mile Beach
	69 Chippewa	St. Mary's River	6 Sugar Island Township Park
<u>14</u>	<u>Emmet</u>	Lake Michigan	1 Cross Village Beach
	71 Emmet	Lake Michigan	2 Mackinaw City Beach #1
	72 Emmet	Lake Michigan	3 Mackinaw City Beach #2
	73 Emmet	Lake Michigan	4 Magnus Park
	74 Emmet	Lake Michigan	5 Middle Village Park
	75 Emmet	Lake Michigan	6 Petoskey State Park
	76 Emmet	Lake Michigan	7 Readmond Township Beach
	77 Emmet	Lake Michigan	8 Sturgeon Bay Township Beach
	78 Emmet	Lake Michigan	9 Wilderness State Park
	79 Emmet	Lake Michigan	10 Zoll Street Beach
	80 Emmet	Lake Michigan	11 Zorn Park - Harbor Springs
<u>15</u>	<u>Grand Traverse</u>	Grand Traverse Bay-East	1 East Bay Park (Milliken Park)
	82 Grand Traverse	Grand Traverse Bay-East	2 Traverse City State Park
	83 Grand Traverse	Grand Traverse Bay-West	3 Bryant Park Beach
	84 Grand Traverse	Grand Traverse Bay-West	4 Clinch Park
	85 Grand Traverse	Grand Traverse Bay-West	5 West End Beach

Appendix E.1. 2008 Great Lakes Beaches Monitored

	County	Water Body	Location		
<u>16</u>	86	<u>Houghton</u>	Lake Superior	1	Agate Beach
	87	Houghton	Lake Superior	2	McLain State Park Beach
	88	Houghton	Pike Bay at Portage Canal/Lake Superior	3	Chassell Beach
	89	Houghton	Portage Canal/Lake Superior	4	Hancock City Beach
	90	Houghton	Portage Canal/Lake Superior	5	Houghton City Beach
	91	Houghton	Portage Canal/Lake Superior	6	Sandy Bottom Beach/Dollar Bay
	92	Houghton	Torch Lake/Portage Canal/Lake Superior	7	Lake Linden Campground Beach
<u>17</u>	93	<u>Huron</u>	Lake Huron	1	Bird Creek County Park
	94	Huron	Lake Huron	2	Caseville County Park
	95	Huron	Lake Huron	3	Harbor Beach City Park
	96	Huron	Lake Huron	4	Jenks County Park
	97	Huron	Lake Huron	5	Lighthouse County Park
	98	Huron	Lake Huron	6	McGraw County Park
	99	Huron	Lake Huron	7	Oak Beach County Park
	100	Huron	Lake Huron	8	Philp County Park
	101	Huron	Lake Huron	9	Port Crescent State Park - Camping Area
	102	Huron	Lake Huron	10	Port Crescent State Park - Day Use
	103	Huron	Lake Huron	11	Sleeper State Park
	104	Huron	Lake Huron	12	Thompson Park
<u>18</u>	105	<u>Iosco</u>	Lake Huron	1	Alabaster Township
	106	Iosco	Lake Huron	2	Au Sable Township Park
	107	Iosco	Lake Huron	3	MDOT Roadside Park
	108	Iosco	Lake Huron	4	Oscoda Township Beach
	109	Iosco	Lake Huron	5	Tawas Point State Park Campground
	110	Iosco	Lake Huron	6	Tawas Point State Park-Day Use area
	111	Iosco	Tawas Bay	7	East Tawas City Park
	112	Iosco	Tawas Bay	8	Tawas City Park
<u>19</u>	113	<u>Keweenaw</u>	Lake Superior	1	Eagle Harbor Beach
<u>20</u>	114	<u>Leelanau</u>	Grand Traverse Bay-West	1	Northport Bay Marina
	115	Leelanau	Grand Traverse Bay-West	2	Suttons Bay Park
	116	Leelanau	Lake Michigan	3	Empire Municipal Beach
<u>21</u>	117	<u>Mackinac</u>	Lake Huron	1	Kiwanis Beach
	118	Mackinac	Lake Michigan	2	US-2 Roadside East of Brevort
<u>22</u>	119	<u>Macomb</u>	Lake St. Clair	1	H.C.M.A. - Metropolitan Beach Metropark
	120	Macomb	Lake St. Clair	2	New Baltimore Park Beach
	121	Macomb	Lake St. Clair	3	St. Clair Shores Blossom Heath Beach
	122	Macomb	Lake St. Clair	4	St. Clair Shores Memorial Park Beach
<u>23</u>	123	<u>Manistee</u>	Lake Michigan	1	Arcadia Park
	124	Manistee	Lake Michigan	2	Bar Lake Outlet
	125	Manistee	Lake Michigan	3	Fifth Avenue Beach
	126	Manistee	Lake Michigan	4	First Street Beach
	127	Manistee	Lake Michigan	5	Magoon Creek
	128	Manistee	Lake Michigan	6	Onekama Township Beach

Appendix E.1. 2008 Great Lakes Beaches Monitored

County	Water Body	Location
129 Manistee	Lake Michigan	7 Orchard Beach State Park
130 Manistee	Lake Michigan	8 Pierport Township Beach
131 Manistee	Lake Michigan	9 Sundling Park
<u>24</u> 132 Marquette	Lake Superior	1 Marquette South Beach
133 Marquette	Lake Superior	2 McCarty's Cove
134 Marquette	Lake Superior	3 North Beach
135 Marquette	Lake Superior	4 North of Picnic Rocks
136 Marquette	Lake Superior	5 Picnic Rocks
<u>25</u> 137 Mason	Lake Michigan	1 Bass Lake Outlet Beach
138 Mason	Lake Michigan	2 Buttersville Park Beach
139 Mason	Lake Michigan	3 Ludington State Park Campground Beach
140 Mason	Lake Michigan	4 South Pier Beach
141 Mason	Lake Michigan	5 South Summit Beach-Sunset Boulevard Beach
142 Mason	Lake Michigan	6 Sterns Park Beach
143 Mason	Lake Michigan	7 Summit Township Beach
<u>26</u> 144 Menominee	Lake Michigan	1 Henes Park
145 Menominee	Lake Michigan	2 Memorial Beach
<u>27</u> 146 Monroe	Lake Erie	1 Luna Pier City Beach
147 Monroe	Lake Erie	2 Sterling State Park
<u>28</u> 148 Muskegon	Lake Michigan	1 Bronson/Kruse Park
149 Muskegon	Lake Michigan	2 Duck Lake Channel Beach
150 Muskegon	Lake Michigan	3 Lake Harbor Park
151 Muskegon	Lake Michigan	4 Lighthouse/Sylvan Beach
152 Muskegon	Lake Michigan	5 Medbury Park Beach
153 Muskegon	Lake Michigan	6 Meinert County Park
154 Muskegon	Lake Michigan	7 Muskegon State Park
155 Muskegon	Lake Michigan	8 Old Channel Beach
156 Muskegon	Lake Michigan	9 P.J. Hoffmaster State Park-Campground
157 Muskegon	Lake Michigan	10 P.J. Hoffmaster State Park-Public Beach Area
158 Muskegon	Lake Michigan	11 Pere Marquette Park
159 Muskegon	Lake Michigan	12 Pioneer County Park
<u>29</u> 160 Oceana	Lake Michigan	1 Claybanks Township Park
161 Oceana	Lake Michigan	2 Lighthouse Beach at Silver Lake State Park
162 Oceana	Lake Michigan	3 Mears State Park
163 Oceana	Lake Michigan	4 Whiskey Creek
164 Oceana	Silver Lake-Lake Michigan	5 Silver Creek Channel
165 Oceana	Stony Lake and Lake Michigan	6 Stony Lake Channel
<u>30</u> 166 Ontonagon	Lake Superior	1 Ontonagon Township Park and Campground
167 Ontonagon	Lake Superior	2 Porcupine Mountains State Park-Union Bay
<u>31</u> 168 Ottawa	Lake Michigan	1 Grand Haven City Beach
169 Ottawa	Lake Michigan	2 Grand Haven State Park
170 Ottawa	Lake Michigan	3 Holland State Park

Appendix E.1. 2008 Great Lakes Beaches Monitored

County	Water Body	Location
171 Ottawa	Lake Michigan	4 Kirk Park
172 Ottawa	Lake Michigan	5 Kouw Park
173 Ottawa	Lake Michigan	6 North Beach Park
174 Ottawa	Lake Michigan	7 Rosy Mound Recreation Area
175 Ottawa	Lake Michigan	8 Tunnel Park
176 Ottawa	Lake Michigan	9 Windsnest Park
<u>32</u> 177 Presque Isle	Lake Huron	1 Hoeft State Park-South
178 Presque Isle	Lake Huron	2 Lakeside Park Beach
179 Presque Isle	Lake Huron	3 Lakeside Park in Rogers City
180 Presque Isle	Lake Huron	4 Presque Isle Harbor
181 Presque Isle	Lake Huron	5 Presque Isle Harbor Beach
<u>33</u> 182 Sanilac	Lake Huron	1 Forester County Park
183 Sanilac	Lake Huron	2 Lexington Beach
184 Sanilac	Lake Huron	3 Lexington County Park
185 Sanilac	Lake Huron	4 Port Sanilac Park
<u>34</u> 186 Schoolcraft	Lake Michigan	1 Roadside Park Beach
187 Schoolcraft	Lake Michigan	2 Rogers Beach
<u>35</u> 188 St. Clair	Lake Huron	1 Burtchville Township Park
189 St. Clair	Lake Huron	2 Conger-Lighthouse Beach
190 St. Clair	Lake Huron	3 Fort Gratiot County Park
191 St. Clair	Lake Huron	4 Holland Road Beach
192 St. Clair	Lake Huron	5 Jeddo Road Beach
193 St. Clair	Lake Huron	6 Keewadhin Road Beach
194 St. Clair	Lake Huron	7 Krafft Road Beach
195 St. Clair	Lake Huron	8 Lakeport State Campground
196 St. Clair	Lake Huron	9 Lakeport State Park
197 St. Clair	Lake Huron	10 Lakeside Beach
198 St. Clair	Lake Huron	11 Metcalf Road Beach
199 St. Clair	Lake Huron	12 Washington Street Park
200 St. Clair	St. Clair River	13 Chrysler Park Beach
201 St. Clair	St. Clair River	14 Marine City Beach
202 St. Clair	St. Clair River	15 Marine City Diving Area
<u>36</u> 203 Van Buren	Lake Michigan	1 Covert Township Park Beach
204 Van Buren	Lake Michigan	2 South Haven North Beach
205 Van Buren	Lake Michigan	3 South Haven South Beach
206 Van Buren	Lake Michigan	4 Van Buren State Park Beach
<u>37</u> 207 Wayne	Detroit River	1 Belle Isle Beach
208 Wayne	Lake St. Clair	2 Pier Park

Appendix E.2. 2008 Great Lakes Beaches NOT Monitored

	County	Water Body	Location	
<u>1</u>	1	Alcona	Lake Huron	Black River Public Access
	2	Alcona	Lake Huron	Greenbush Township
	3	Alcona	Lake Huron	Harrisville Public Access
	4	Alcona	Lake Huron	Negwegon State Park
	5	Alcona	Lake Huron	Public Shoreline Beach-Huron National Forest North
	6	Alcona	Lake Huron	Public Shoreline Beach-Huron National Forest South
	7	Alcona	Lake Huron	Sturgeon Point State Park
	8	Alcona	Lake Huron	Trask Lake Road Beach
<u>2</u>	9	Alger	Lake Superior	Au Train Beach
	10	Alger	Lake Superior	Bay Furnace Recreation Area Beach
	11	Alger	Lake Superior	Christmas Beach
	12	Alger	Lake Superior	Grand Marais Harbor Beach
	13	Alger	Lake Superior	Grand Marais Township Beach
	14	Alger	Lake Superior	Hurricane Campground Beach
	15	Alger	Lake Superior	Miners Beach
	16	Alger	Lake Superior	Munising Beach
	17	Alger	Lake Superior	Public Shoreline Beach-Au Train Bay
	18	Alger	Lake Superior	Public Shoreline Beach-Au Train to Five Mile Pts
	19	Alger	Lake Superior	Public Shoreline Beach-East County Border Area
	20	Alger	Lake Superior	Public Shoreline Beach-Grand Sable Dunes
	21	Alger	Lake Superior	Public Shoreline-Grand Portal Point
	22	Alger	Lake Superior	Public Shoreline-Sand Point to Miners Castle Point
	23	Alger	Lake Superior	Rathfoot Park Beach
	24	Alger	Lake Superior	Roadside Park
	25	Alger	Lake Superior	Twelve-Mile Beach
<u>3</u>	26	Allegan	Lake Michigan	Castle Park
	27	Allegan	Lake Michigan	Saugatuck Dunes State Park Shoreline Beach
<u>4</u>	28	Alpena	Lake Huron	Bay View Park
	29	Alpena	Lake Huron	Elcajon Bay
	30	Alpena	Lake Huron	Issineke Hardwood Point
	31	Alpena	Lake Huron	Negwegon State Park-Ossineke South Point
	32	Alpena	Lake Huron	Ossineke Campground
	33	Alpena	Lake Huron	Ossineke State Park
	34	Alpena	Lake Huron	Partridge Point
	35	Alpena	Lake Huron	Rock Port Beach
	36	Alpena	Lake Huron	Whitefish Bay
	<u>5</u>	37	Antrim	Grand Traverse Bay-East
38		Antrim	Lake Michigan	Antrim County Day Park North
39		Antrim	Lake Michigan	Antrim Creek Natural Area
40		Antrim	Lake Michigan	Elk Rapids Park
41		Antrim	Lake Michigan	Erickson Road
42		Antrim	Lake Michigan	Lore Road End Beach
43		Antrim	Lake Michigan	Michigan Trail
44		Antrim	Lake Michigan	Nature Preserve
45		Antrim	Lake Michigan	North Bay Shore (Conservancy)
46		Antrim	Lake Michigan	O'Dell Road
47	Antrim	Lake Michigan	Road Crossing near Winters Road	
<u>6</u>	48	Arenac	Inner Saginaw Bay	Augres Township Park Beach

Appendix E.2. 2008 Great Lakes Beaches NOT Monitored

	County	Water Body	Location	
	49	Arenac	Inner Saginaw Bay	Booth Road Beach
	50	Arenac	Inner Saginaw Bay	City of Augres Public Access
	51	Arenac	Inner Saginaw Bay	Gordon Road Beach
	52	Arenac	Inner Saginaw Bay	Terrace Road
	53	Arenac	Saginaw Bay Inner-Lake Huron	Au Sable State Forest - Greens Point
	54	Arenac	Saginaw Bay-Lake Huron	Pump Station
<u>7</u>	55	<u>Baraga</u>	Huron Bay/Lake Superior	Arvon Township Park
	56	Baraga	Keweenaw Bay/Lake Superior	Baraga State Park
	57	Baraga	Keweenaw Bay/Lake Superior	First Sand Beach
	58	Baraga	Keweenaw Bay/Lake Superior	L'Anse Township Park
	59	Baraga	Keweenaw Bay/Lake Superior	Second Sands Beach
	60	Baraga	Lake Superior	Keweenaw Bay Village Public Roadside Park
	61	Baraga	Lake Superior	Mouth of the Huron River
	62	Baraga	Lake Superior	Public Shoreline Beach-Cooper Country Huron Bay
	63	Baraga	Lake Superior	Public Shoreline Beach-Northwest Abbaye Peninsula
	64	Baraga	Lake Superior	Public Shoreline Beach-Point Abbaye
	65	Baraga	Lake Superior	Public Shoreline Beach-Sand Point
<u>8</u>	66	<u>Bay</u>	Saginaw Bay	Nayanquing Point Wildlife Area
<u>9</u>	67	<u>Benzie</u>	Lake Michigan	Alberta Village Beach & Bluffs
	68	Benzie	Lake Michigan	County Road #669
	69	Benzie	Lake Michigan	Esch Road/Otter Creek
	70	Benzie	Lake Michigan	Platte River Point
	71	Benzie	Lake Michigan	Point Betsie Lighthouse Beach
	72	Benzie	Lake Michigan	Sleeping Bear Dunes-North of Esch Road
	73	Benzie	Lake Michigan	Sleeping Bear Dunes-Platte Bay South
	74	Benzie	Lake Michigan	Sleeping Bear Dunes-Platte River
	75	Benzie	Lake Michigan	Sleeping Bear Dunes-South of Esch Road
	76	Benzie	Lake Michigan	Zettenberg Preserve
<u>10</u>	77	<u>Berrien</u>	Lake Michigan	Galien River Park
	78	Berrien	Lake Michigan	Gordon Beach
	79	Berrien	Lake Michigan	Grand Mere State Park-Rosemary Beach
	80	Berrien	Lake Michigan	Grand Mere State Park-Shoreline Beach
	81	Berrien	Lake Michigan	Grand Mere State Park-Waverland Beach
	82	Berrien	Lake Michigan	Mizpah Park
	83	Berrien	Lake Michigan	Warren Dunes State Park North
<u>11</u>	84	<u>Charlevoix</u>	Lake Michigan	Bill Wagner Memorial Campground Beach
	85	Charlevoix	Lake Michigan	Cables Bay Beach
	86	Charlevoix	Lake Michigan	Donegal Bay
	87	Charlevoix	Lake Michigan	Harbor Beach
	88	Charlevoix	Lake Michigan	Iron Ore Bay Beach
	89	Charlevoix	Lake Michigan	Mt. McSauba Beach
<u>12</u>	90	<u>Cheboygan</u>	Lake Huron	Alexander Henry Park
	91	Cheboygan	Lake Huron	Cheboygen State Park-Lighthouse Point
	92	Cheboygan	Lake Huron	Ditta Park
	93	Cheboygan	Lake Huron	Huron Street Beach
	94	Cheboygan	Lake Huron	Mackinaw City Beach
	95	Cheboygan	Lake Huron	Mill Creek Public Access

Appendix E.2. 2008 Great Lakes Beaches NOT Monitored

	County	Water Body	Location	
	96	Cheboygan	Lake Huron	Pinewood Circle Road End Beach
	97	Cheboygan	Lake Huron	Roadside Park MDOT, US-23
	98	Cheboygan	Lake Huron	Stoney Point Road End Beach
13	99	Chippewa	Lake Huron	Bass Cove Beach-Drummond Island
	100	Chippewa	Lake Huron	Betsey Seaman Memorial Park-Drummond Island
	101	Chippewa	Lake Huron	Big Shoal Cove Beach
	102	Chippewa	Lake Huron	De Tour State Park Shoreline Beach
	103	Chippewa	Lake Huron	Detour Albany Beach
	104	Chippewa	Lake Huron	Drummond Island Township Park
	105	Chippewa	Lake Huron	Sand Bay Beach-Drummond Island
	106	Chippewa	Lake Superior	Hiawatha National Forest-Nodoway Point Area
	107	Chippewa	Lake Superior	Hiawatha National Forest-North of Big Pine Picnic
	108	Chippewa	Lake Superior	Hiawatha National Forest-Pendills Bay
	109	Chippewa	Lake Superior	Hiawatha National Forest-Pendills Lake
	110	Chippewa	Lake Superior	Hiawatha National Forest-Point Iroquois Light
	111	Chippewa	Lake Superior	Hiawatha National Forest-Tahquamenon Bay
	112	Chippewa	Lake Superior	Hiawatha National Forest-West of Salt Point
	113	Chippewa	Lake Superior	Public Shoreline Beach-Browns Creek Area
	114	Chippewa	Lake Superior	Public Shoreline Beach-Marsh Lake Area
	115	Chippewa	Lake Superior	Public Shoreline Beach-Northwest of Two Mile Lake
	116	Chippewa	Lake Superior	Public Shoreline Beach-Weatherhog Lake East Area
	117	Chippewa	Lake Superior	Public Shoreline Beach-Weatherhog Lake West
	118	Chippewa	Lake Superior	Public Shoreline Beach-West of Whitefish Point
	119	Chippewa	Lake Superior	Tahquamenon Falls State Park-River Mouth Unit
	120	Chippewa	St. Marys River	Dunbar Park
	121	Chippewa	St. Marys River	Hiawatha National Forest-North Pond
	122	Chippewa	St. Marys River	Hiawatha National Forest-Waiska Bay
	123	Chippewa	St. Marys River	Lake Superior State Forest-Munuscong Lake
	124	Chippewa	St. Marys River	Public Shoreline Beach-Brush Point
	125	Chippewa	St. Marys River	Public Shoreline Beach-Point Aux Frenes
	126	Chippewa	St. Marys River	Public Shoreline Beach-Raber Bay stretch
	127	Chippewa	St. Marys River	Wilderness Beach
14	128	Delta	Lake Michigan	Big Bay De Noc/Fishdam River Public Access
	129	Delta	Lake Michigan	Escanaba Bathing Beach
	130	Delta	Lake Michigan	Fayette State Park
	131	Delta	Lake Michigan	Fuller Park
	132	Delta	Lake Michigan	Gladstone Bathing Beach/Van Cleve Park
	133	Delta	Lake Michigan	Little Bay De Noc Public Beach Access
	134	Delta	Lake Michigan	Portage Bay Forest Campground
	135	Delta	Lake Michigan	Public Shoreline Beach-Charboneau Point
	136	Delta	Lake Michigan	Public Shoreline Beach-County Road 481
	137	Delta	Lake Michigan	Public Shoreline Beach-East Wilsey Bay
	138	Delta	Lake Michigan	Public Shoreline Beach-Fishdam River
	139	Delta	Lake Michigan	Public Shoreline Beach-Gilnet Haven
	140	Delta	Lake Michigan	Public Shoreline Beach-Indian Point
	141	Delta	Lake Michigan	Public Shoreline Beach-Indian Town Lake USFS
	142	Delta	Lake Michigan	Public Shoreline Beach-Jacks Bluff
	143	Delta	Lake Michigan	Public Shoreline Beach-Martin Bay
	144	Delta	Lake Michigan	Public Shoreline Beach-Nahma
	145	Delta	Lake Michigan	Public Shoreline Beach-North End of Gregg Bay
	146	Delta	Lake Michigan	Public Shoreline Beach-North of Stonington

Appendix E.2. 2008 Great Lakes Beaches NOT Monitored

County	Water Body	Location
147 Delta	Lake Michigan	Public Shoreline Beach-Ogontz Bay
148 Delta	Lake Michigan	Public Shoreline Beach-Peninsula Point
149 Delta	Lake Michigan	Public Shoreline Beach-Point Detour
150 Delta	Lake Michigan	Public Shoreline Beach-Portage Bay
151 Delta	Lake Michigan	Public Shoreline Beach-Portage Peninsula
152 Delta	Lake Michigan	Public Shoreline Beach-St. Vital's Island
153 Delta	Lake Michigan	Public Shoreline Beach-USFS West Wilsey Bay
154 Delta	Lake Michigan	Public Shoreline Beach-West Side of Kregg Bay
155 Delta	Lake Michigan	Sac Bay County Park
156 Delta	Lake Michigan	Sac Bay County Park
157 Delta	Lake Michigan	Twin Springs Campground and Bathing Beach
<u>15</u> 158 Emmet	Lake Michigan	Bliss Township Beach
159 Emmet	Lake Michigan	Church Beach
160 Emmet	Lake Michigan	Colonial Michilimackinac State Park
161 Emmet	Lake Michigan	Forest Beach
162 Emmet	Lake Michigan	Petoskey Harbor
163 Emmet	Lake Michigan	The Headlands County Park
164 Emmet	Lake Michigan	Thorne Swift Preserve
165 Emmet	Lake Michigan	Wilderness State Park-East of the Beach
166 Emmet	Lake Michigan	Wilderness State Park-Sturgeon Bay
167 Emmet	Lake Michigan	Wilderness State Park-West of Beach
<u>16</u> 168 Gogebic	Lake Superior	Black River Harbor Beach
169 Gogebic	Lake Superior	Little Girls Point Park
170 Gogebic	Lake Superior	Mouth of the Montreal River
171 Gogebic	Lake Superior	Porcupine Mountain State Park-North
172 Gogebic	Lake Superior	Presque Isle Beach
173 Gogebic	Lake Superior	Presque Isle State Campground
174 Gogebic	Lake Superior	Public Shoreline Beach-West of Black River
<u>17</u> 175 Grand Traverse	Grand Traverse Bay	Archie Park
176 Grand Traverse	Grand Traverse Bay	Old Mission - Center Road Natural Area
177 Grand Traverse	Grand Traverse Bay	Old Mission - MDOT Right of Way-South of M-37
178 Grand Traverse	Grand Traverse Bay	Old Mission - Old Mission Point State Park
179 Grand Traverse	Grand Traverse Bay-East	Acme Roadside Park & Beach MDOT
180 Grand Traverse	Grand Traverse Bay-East	Acme Roadside Park (DNR)
181 Grand Traverse	Grand Traverse Bay-East	Bayside Acme Township Park
182 Grand Traverse	Grand Traverse Bay-East	Deep Water Point
183 Grand Traverse	Grand Traverse Bay-East	East Bay Township Four Mile Road
184 Grand Traverse	Grand Traverse Bay-East	Sayler Park
185 Grand Traverse	Grand Traverse Bay-East	Yuba Beach
186 Grand Traverse	Grand Traverse Bay-Old Mission Peninsula	Bowers Harbor Public Access
187 Grand Traverse	Grand Traverse Bay-Old Mission Peninsula	DNR Launch/Beach Center Road
188 Grand Traverse	Grand Traverse Bay-Old Mission Peninsula	Haserot Beach
189 Grand Traverse	Grand Traverse Bay-Old Mission Peninsula	Kroupa Road Access M-22 South of Crain Hill Road
190 Grand Traverse	Grand Traverse Bay-Old Mission Peninsula	Leffingwell Point Beach
191 Grand Traverse	Grand Traverse Bay-Old Mission Peninsula	Old Mission Lighthouse
192 Grand Traverse	Grand Traverse Bay-Old Mission Peninsula	Old Mission Peninsula Twp Park-East of Lighthouse
193 Grand Traverse	Grand Traverse Bay-Old Mission Peninsula	Old Mission Peninsula Twp Park-West of Lighthouse
194 Grand Traverse	Grand Traverse Bay-Old Mission Peninsula	Old Mission Road
195 Grand Traverse	Grand Traverse Bay-Old Mission Peninsula	Peninsula Volunteer Fire Station Point #2
196 Grand Traverse	Grand Traverse Bay-Old Mission Peninsula	Swaney Road

Appendix E.2. 2008 Great Lakes Beaches NOT Monitored

County	Water Body	Location	
197	Grand Traverse	Grand Traverse Bay-West	Mouth of Boardman
198	Grand Traverse	Grand Traverse Bay-West	Power Island Bay Park
199	Grand Traverse	Grand Traverse Bay-West	Rose Street Access at Peninsula Drive
200	Grand Traverse	Grand Traverse Bay-West	Senior Center
201	Grand Traverse	Grand Traverse Bay-West	Sunset Park
<u>18</u>	<u>202 Houghton</u>	Lake Superior	Calument Waterworks Beach
	203 Houghton	Lake Superior	Mink Farm
	204 Houghton	Lake Superior	Public Shoreline Beach-Le Chance Creek
	205 Houghton	Lake Superior	Public Shoreline Beach-Mc Lain State Park
	206 Houghton	Lake Superior	Public Shoreline Beach-South of Portage Entry
	207 Houghton	Lake Superior	Public Shoreline Beach-Southwest County Border
	208 Houghton	Lake Superior	White City
	209 Houghton	Torch Lake/Portage Canal/Lake Superior	Hubbell Park
<u>19</u>	<u>210 Huron</u>	Lake Huron	County Road End
	211 Huron	Lake Huron	Geiger Road Public Access
	212 Huron	Lake Huron	Grindstone Public Access
	213 Huron	Lake Huron	Harbor Beach Marina
	214 Huron	Lake Huron	Helena Road End
	215 Huron	Lake Huron	Kinch Road End
	216 Huron	Lake Huron	Larned Road End
	217 Huron	Lake Huron	Lighthouse County Park-South
	218 Huron	Lake Huron	Mud Creek Public Access
	219 Huron	Lake Huron	Stafford County Park
	220 Huron	Lake Huron	Veterans Park
	221 Huron	Lake Huron	Wagener County Park
<u>20</u>	<u>222 Iosco</u>	Lake Huron	Au Sable Point Beach
	223 Iosco	Lake Huron	Lake To Lake Road
	224 Iosco	Lake Huron	Tawas Point State Park-Central
	225 Iosco	Lake Huron (Tawas Bay)	County Road End.
	226 Iosco	Lake Huron (Tawas Bay)	Gateway Park
<u>21</u>	<u>227 Keweenaw</u>	Lake Superior	Brunette Park
	228 Keweenaw	Lake Superior	Cat Harbor Beach
	229 Keweenaw	Lake Superior	Cooper Harbor Lighthouse Complex
	230 Keweenaw	Lake Superior	Eagle River Beach
	231 Keweenaw	Lake Superior	Fort Wilkins State Park
	232 Keweenaw	Lake Superior	Fort Wilkins State Park-East
	233 Keweenaw	Lake Superior	Fort Wilkins State Park-West
	234 Keweenaw	Lake Superior	Great Sands Bay Beach
	235 Keweenaw	Lake Superior	Mouth of the Gratiot River Beach
	236 Keweenaw	Lake Superior	Point Isabelle Beach
	237 Keweenaw	Lake Superior	Public Shoreline Beach-Big Traverse Bay
	238 Keweenaw	Lake Superior	Public Shoreline Beach-Gay Park
	239 Keweenaw	Lake Superior at Bete de Gris Bay	Bete de Gris Beach
<u>22</u>	<u>240 Leelanau</u>	Grand Traverse Bay	Boughy Park and Beach
	241 Leelanau	Grand Traverse Bay-West	Cathead Bay - Leelanau State Park
	242 Leelanau	Grand Traverse Bay-West	Christmas Cove
	243 Leelanau	Grand Traverse Bay-West	Elmwood/Greilikville Park and Beach
	244 Leelanau	Grand Traverse Bay-West	Graham Green Park

Appendix E.2. 2008 Great Lakes Beaches NOT Monitored

County	Water Body	Location	
245	Leelanau	Grand Traverse Bay-West	Hendryx County Roadside Park
246	Leelanau	Grand Traverse Bay-West	M-22 at M-72 Public Access
247	Leelanau	Grand Traverse Bay-West	MDOT Roadside Park & Beach
248	Leelanau	Grand Traverse Bay-West	MDOT Roadside Park & Beach M-22 N of Cherry Bend D
249	Leelanau	Grand Traverse Bay-West	Northport 4th Street Beach
250	Leelanau	Grand Traverse Bay-West	Northport 5th Street Beach
251	Leelanau	Grand Traverse Bay-West	Northport 7th Street Beach
252	Leelanau	Grand Traverse Bay-West	Northport Haserot Beach, Rose Street
253	Leelanau	Grand Traverse Bay-West	Omena Beach and Park
254	Leelanau	Grand Traverse Bay-West	Stoney Point County Roadside Park
255	Leelanau	Grand Traverse Bay-West	Suttons Bay Marina Park and Beach South
256	Leelanau	Grand Traverse Bay-West	Suttons Bay Public Launch and Beach
257	Leelanau	Grand Traverse Bay-West	Suttons Bay South Shore Park
258	Leelanau	Lake Michigan	Bay Front Park
259	Leelanau	Lake Michigan	Cedar Street Beach
260	Leelanau	Lake Michigan	G. Marsten Dame Marina
261	Leelanau	Lake Michigan	Gils Pier
262	Leelanau	Lake Michigan	Glen Arbor/Manitou Boulevard Beach
263	Leelanau	Lake Michigan	Lake Street Beach - Glen Arbor
264	Leelanau	Lake Michigan	Leelanau State Park - Lighthouse
265	Leelanau	Lake Michigan	Leland Harbor
266	Leelanau	Lake Michigan	North Bar
267	Leelanau	Lake Michigan	North Street Beach
268	Leelanau	Lake Michigan	Peterson Park
269	Leelanau	Lake Michigan	Reynolds Street Beach
270	Leelanau	Lake Michigan	Sleeping Bear Dunes-Empire Bluffs
271	Leelanau	Lake Michigan	Sleeping Bear Dunes-Empire/North Bar Stretch
272	Leelanau	Lake Michigan	Sleeping Bear Dunes-Glen Haven
273	Leelanau	Lake Michigan	Sleeping Bear Dunes-Glen Haven Beach
274	Leelanau	Lake Michigan	Sleeping Bear Dunes-Good Harbor Bay Beach East
275	Leelanau	Lake Michigan	Sleeping Bear Dunes-Good Harbor Bay Beach West
276	Leelanau	Lake Michigan	Sleeping Bear Dunes-Good Harbor Bay Middle Stretch
277	Leelanau	Lake Michigan	Sleeping Bear Dunes-North Bar Lake Area
278	Leelanau	Lake Michigan	Sleeping Bear Dunes-Pyramid Point
279	Leelanau	Lake Michigan	Sleeping Bear Dunes-Scenic Overlook
280	Leelanau	Lake Michigan	Sleeping Bear Dunes-Scenic Sleeping Bear Dune
281	Leelanau	Lake Michigan	Sleeping Bear Dunes-South of Empire
282	Leelanau	Lake Michigan	Smith Street Beach Northport
283	Leelanau	Lake Michigan	Thompson Stree Beach
<u>23</u>	<u>284 Luce</u>	Lake Superior	Blind Sucker River #1
	285 Luce	Lake Superior	Blind Sucker River #2
	286 Luce	Lake Superior	Crisp Point Light House
	287 Luce	Lake Superior	Lake Superior Campground Beach
	288 Luce	Lake Superior	Mouth of the Two Hearted River Campground
	289 Luce	Lake Superior	Muskallonge Lake State Park Beach
	290 Luce	Lake Superior	Public Shoreline Beach-Blind Sucker Flooding Area
	291 Luce	Lake Superior	Public Shoreline Beach-Coast Guard Line Road
	292 Luce	Lake Superior	Public Shoreline Beach-County Road 407
	293 Luce	Lake Superior	Public Shoreline Beach-County Road 412 and Crisp Point
	294 Luce	Lake Superior	Public Shoreline Beach-Little Sucker/Two Hearted River
	295 Luce	Lake Superior	Public Shoreline Beach-Three Mile Creek Area
	296 Luce	Lake Superior	Public Shoreline Beach-West County Border Beach

Appendix E.2. 2008 Great Lakes Beaches NOT Monitored

County	Water Body	Location
297 Luce	Lake Superior	Unnamed Road End #1
298 Luce	Lake Superior	Unnamed Road End #2
299 Luce	Lake Superior	Unnamed Road End #3
<u>24</u> 300 Mackinac	Lake Huron	American Legion Memorial Park
301 Mackinac	Lake Huron	Antoine Road End
302 Mackinac	Lake Huron	Boot Island
303 Mackinac	Lake Huron	Coast Guard Pier Boat Launch and City Park
304 Mackinac	Lake Huron	Foley Creek Campground
305 Mackinac	Lake Huron	Government Island-Hiawatha National Forest
306 Mackinac	Lake Huron	Harbour Light
307 Mackinac	Lake Huron	Hazelton Road End
308 Mackinac	Lake Huron	Hiawatha National Forest-Carp River Access
309 Mackinac	Lake Huron	Horseshoe Bay Wilderness-North
310 Mackinac	Lake Huron	Horseshoe Bay Wilderness-South
311 Mackinac	Lake Huron	Straits State Park
312 Mackinac	Lake Michigan	Big Knob State Forest Campground
313 Mackinac	Lake Michigan	Black River State Forest Campground
314 Mackinac	Lake Michigan	Epoufette Bay Campground
315 Mackinac	Lake Michigan	Hog Island Campground
316 Mackinac	Lake Michigan	MDOT Overlook
317 Mackinac	Lake Michigan	MDOT Roadside Park on US-2
318 Mackinac	Lake Michigan	Mouth of Cut River Roadside Beach
319 Mackinac	Lake Michigan	Naubinway Bay Access
320 Mackinac	Lake Michigan	Public Shoreline Beach-Epoufette Bay
321 Mackinac	Lake Michigan	Public Shoreline Beach-Fox Point Area
322 Mackinac	Lake Michigan	Public Shoreline Beach-Little Hog Island area
323 Mackinac	Lake Michigan	Public Shoreline Beach-Manitou Paymen Highbanks
324 Mackinac	Lake Michigan	Public Shoreline Beach-MDNR Matrix Point Area
325 Mackinac	Lake Michigan	Public Shoreline Beach-Morean Township, Section 25
326 Mackinac	Lake Michigan	Public Shoreline Beach-Naubinway Area
327 Mackinac	Lake Michigan	Public Shoreline Beach-Pointe Aux Chenes Bay
328 Mackinac	Lake Michigan	Public Shoreline Beach-Seiners Point
329 Mackinac	Lake Michigan	Public Shoreline Beach-South of Brevort River
330 Mackinac	Lake Michigan	Public Shoreline Beach-State Forest Matrix Point
331 Mackinac	Lake Michigan	Sand Point
332 Mackinac	Lake Michigan	State Roadside Park Beach
333 Mackinac	Lake Michigan	US-2 Roadside/Campground
<u>25</u> 334 Manistee	Lake Michigan	Portage Park
<u>26</u> 335 Marquette	Lake Superior	Public Shoreline Beach-Big Huron River
336 Marquette	Lake Superior	Public Shoreline Beach-Little Presque Isle
<u>27</u> 337 Mason	Lake Michigan	Ludington State Park Public Shoreline Beach North
338 Mason	Lake Michigan	Ludington State Park Public Shoreline Beach South
339 Mason	Lake Michigan	Manistee National Forest Campground Beach
340 Mason	Lake Michigan	Manistee National Forest-Public Shoreline Beach North
341 Mason	Lake Michigan	Manistee National Forest-Public Shoreline Beach South
342 Mason	Lake Michigan	Pere Marquette Harbor
<u>28</u> 343 Menominee	Lake Michigan	Airport Park
344 Menominee	Lake Michigan	Fox Park

Appendix E.2. 2008 Great Lakes Beaches NOT Monitored

County	Water Body	Location
345 Menominee	Lake Michigan	Klienke Park
346 Menominee	Lake Michigan	Public Shoreline Beach-Cedar River
347 Menominee	Lake Michigan	Public Shoreline Beach-Fox village
348 Menominee	Lake Michigan	Wells State Park
<u>29</u> 349 Muskegon	Lake Michigan	Muskegon State Park-Shoreline Beach North
<u>30</u> 350 Oceana	Lake Michigan	Cedar Point County Park
351 Oceana	Lake Michigan	Silver Lake State Park
<u>31</u> 352 Ontonagon	Lake Superior	Green Park
353 Ontonagon	Lake Superior	Gull Point Beach
354 Ontonagon	Lake Superior	Mouth of the Big Iron River Beach
355 Ontonagon	Lake Superior	Porcupine Mountain State Park
356 Ontonagon	Lake Superior	Porcupine Mountains Wilderness State Park-West
357 Ontonagon	Lake Superior	Public Shoreline Beach-Misery Bay
358 Ontonagon	Lake Superior	Public Shoreline Beach-Sleeping Bay
359 Ontonagon	Lake Superior	Public Shoreline Beach-Wolf Point
360 Ontonagon	Lake Superior	Union Bay Beach
<u>32</u> 361 Ottawa	Lake Michigan	Mountain Beach
362 Ottawa	Lake Michigan	P.J. Hoffmaster State Park - Shoreline Beach
<u>33</u> 363 Presque Isle	Lake Huron	40 Mile Point Park
364 Presque Isle	Lake Huron	Ball Diamond Park
365 Presque Isle	Lake Huron	Bell Bay
366 Presque Isle	Lake Huron	Evergreen Beach
367 Presque Isle	Lake Huron	Golden Beach
368 Presque Isle	Lake Huron	Grace Access Site
369 Presque Isle	Lake Huron	Hammond Bay Access Site
370 Presque Isle	Lake Huron	Hammond Bay Harbor
371 Presque Isle	Lake Huron	Hoeft State Park-North
372 Presque Isle	Lake Huron	Lakeview Park Beach
373 Presque Isle	Lake Huron	Manitou Beach
374 Presque Isle	Lake Huron	New Lighthouse Park
375 Presque Isle	Lake Huron	Public Shoreline Beach-False Presque Isle Harbor
376 Presque Isle	Lake Huron	Seagull Point Park
377 Presque Isle	Lake Huron	Thompson's Harbor State Park
378 Presque Isle	Lake Huron	US-23 Hammond Bay
379 Presque Isle	Lake Huron	US-23 Roger City
<u>34</u> 380 Sanilac	Lake Huron	Birch Beach
381 Sanilac	Lake Huron	Birch Beach Middle #2
382 Sanilac	Lake Huron	Birch Beach North #3
383 Sanilac	Lake Huron	Delaware Park
384 Sanilac	Lake Huron	Forestville Beach
385 Sanilac	Lake Huron	Great Lakes Beach
386 Sanilac	Lake Huron	Sanilac County Park #4
387 Sanilac	Lake Huron	Sanilac County Roadside Park #1
<u>35</u> 388 Schoolcraft	Lake Michigan	Doyle Township Park
389 Schoolcraft	Lake Michigan	Lakeview Park
390 Schoolcraft	Lake Michigan	Manistique Township Park

Appendix E.2. 2008 Great Lakes Beaches NOT Monitored

County	Water Body	Location
391 Schoolcraft	Lake Michigan	Public Shoreline Beach-Goudreou's Harbor
392 Schoolcraft	Lake Michigan	Public Shoreline Beach-South of McDonald Lake
393 Schoolcraft	Lake Michigan	Public Shoreline Beach-Thompson
394 Schoolcraft	Lake Michigan	Public Shoreline Beach-Thompson Village

Appendix F. 2008 Inland and Great Lakes Beaches Exceedances of WQS (300 *E. coli* per 100 ml)

	County	Water Body	Location	Sampling Date	<i>E. coli</i> Test Results	
<u>1</u>	1	<u>Allegan</u>	Dumont Lake	Dumont Lake County Park Beach	6/9/2008	876.4
	2	Allegan	Ely Lake	Ely Lake Campground Beach	8/11/2008	366.4
	3	Allegan	Gun Lake	Gun Lake County Park Beach	7/14/2008	546.5
	4	Allegan	Lake Michigan	Douglas Beach	6/9/2008	2265.6
	5	Allegan	Lake Michigan	Pier Cove Beach	6/9/2008	2419.6
	6	Allegan	Lake Michigan	West Side County Park Beach	6/9/2008	2121.3
	7	Allegan	Little John Lake	Little John Lake County Park Beach	6/9/2008	1153.1
	8	Allegan	Swan Creek Pond	Pine Point Campground Beach	7/21/2008	351.8
<u>2</u>	9	<u>Antrim</u>	Lake Michigan	Barnes Park	8/18/2008	338.5
<u>3</u>	10	<u>Arenac</u>	Saginaw Bay-Lake Huron	Bessinger Road Beach	7/22/2008	661.2
	11	Arenac	Saginaw Bay-Lake Huron	Foster Road Beach	7/15/2008	315.1
	12	Arenac	Saginaw Bay-Lake Huron	Singing Bridge Beach	7/22/2008	380.2
	13	Arenac	Saginaw Bay-Lake Huron	Singing Bridge Beach	6/17/2008	651.7
	14	Arenac	Saginaw Bay-Lake Huron	Singing Bridge Beach	6/3/2008	733.4
<u>4</u>	15	<u>Bay</u>	Kawkawlin River	Boat Launch on Kawkawlin River	8/19/2008	1312.5
	16	Bay	Kawkawlin River	Boat Launch on Kawkawlin River	8/25/2008	469.0
	17	Bay	Kawkawlin River	Boat Launch on Kawkawlin River	6/23/2008	558.0
	18	Bay	Saginaw Bay-Lake Huron	Bay City State Recreation Area	8/20/2008	579.0
	19	Bay	Saginaw Bay-Lake Huron	Brissette Beach Township Park	8/20/2008	590.0
	20	Bay	Saginaw Bay-Lake Huron	South Linwood Beach Township Park	8/20/2008	395.0
<u>5</u>	21	<u>Charlevoix</u>	Lake Michigan	Norwood Park	8/25/2008	475.5
	22	Charlevoix	Lake Michigan	Norwood Park	7/21/2008	451.4
<u>6</u>	23	<u>Chippewa</u>	Lake Superior	Brimley State Park	8/5/2008	1461.0
<u>7</u>	24	<u>Emmet</u>	Lake Michigan	Zoll Street Beach	7/15/2008	308.7
<u>8</u>	25	<u>Genesee</u>	Copneconic Lake	Copneconic Day Beach	7/21/2008	579.0
	26	Genesee	Mott Lake	Bluebell Beach	7/28/2008	1124.0
	27	Genesee	Mott Lake	Bluebell Beach	9/15/2008	596.0
<u>9</u>	28	<u>Gladwin</u>	Cedar River	Gladwin City Park	6/10/2008	403.5
	29	Gladwin	Ross Lake	Beaverton City Park	6/17/2008	1773.4
	30	Gladwin	Ross Lake	Beaverton City Park	6/10/2008	2419.6
	31	Gladwin	Ross Lake	Beaverton City Park	8/12/2008	889.4
<u>10</u>	32	<u>Traverse</u>	Grand Traverse Bay-East	Traverse City State Park	9/3/2008	427.4
	33	Grand Traverse	Grand Traverse Bay-West	Bryant Park Beach	8/27/2008	546.0
<u>11</u>	34	<u>Huron</u>	Lake Huron	Bird Creek County Park	8/11/2008	1085.9
	35	Huron	Lake Huron	Bird Creek County Park	8/4/2008	561.8
	36	Huron	Lake Huron	Bird Creek County Park	7/21/2008	303.4
	37	Huron	Lake Huron	Bird Creek County Park	7/7/2008	1694.5
	38	Huron	Lake Huron	Caseville County Park	6/30/2008	560.7
	39	Huron	Lake Huron	Caseville County Park	8/19/2008	1001.9
	40	Huron	Lake Huron	Caseville County Park	7/22/2008	362.4
	41	Huron	Lake Huron	Harbor Beach City Park	8/11/2008	497.4
	42	Huron	Lake Huron	Harbor Beach City Park	8/11/2008	727.8
	43	Huron	Lake Huron	Harbor Beach City Park	7/28/2008	509.1
	44	Huron	Lake Huron	Lighthouse County Park	8/11/2008	360.0

Appendix F. 2008 Inland and Great Lakes Beaches Exceedances of WQS (300 *E. coli* per 100 ml)

	County	Water Body	Location	Sampling Date	<i>E. coli</i> Test Results	
45	Huron	Lake Huron	Lighthouse County Park	7/28/2008	441.6	
46	Huron	Lake Huron	Lighthouse County Park	7/21/2008	819.4	
47	Huron	Lake Huron	Lighthouse County Park	7/1/2008	312.1	
48	Huron	Lake Huron	Oak Beach County Park	6/30/2008	437.7	
49	Huron	Lake Huron	Oak Beach County Park	8/19/2008	443.0	
50	Huron	Lake Huron	Thompson Park	8/5/2008	1049.5	
51	Huron	Lake Huron	Thompson Park	7/22/2008	301.9	
<u>12</u>	<u>52</u>	<u>Kalamazoo</u>	Long Lake	Ramona Park	6/23/2008	349.7
<u>13</u>	<u>53</u>	<u>Livingston</u>	Thompson Lake	Howell City Park	5/29/2008	1078.2
	54	Livingston	Thompson Lake	Howell City Park	7/2/2008	793.8
<u>14</u>	<u>55</u>	<u>Macomb</u>	Lake St. Clair	H.C.M.A. - Metropolitan Beach Metropark	7/21/2008	504.7
	56	Macomb	Lake St. Clair	H.C.M.A. - Metropolitan Beach Metropark	8/13/2008	521.3
	57	Macomb	Lake St. Clair	New Baltimore Park Beach	7/17/2008	1032.1
	58	Macomb	Lake St. Clair	New Baltimore Park Beach	9/15/2008	674.9
	59	Macomb	Lake St. Clair	New Baltimore Park Beach	9/17/2008	353.9
	60	Macomb	Lake St. Clair	New Baltimore Park Beach	9/24/2008	323.9
	61	Macomb	Lake St. Clair	St. Clair Shores Blossom Heath Beach	7/9/2008	512.6
	62	Macomb	Lake St. Clair	St. Clair Shores Blossom Heath Beach	6/4/2008	1093.7
	63	Macomb	Lake St. Clair	St. Clair Shores Blossom Heath Beach	6/5/2008	321.6
	64	Macomb	Lake St. Clair	St. Clair Shores Blossom Heath Beach	5/21/2008	364.0
	65	Macomb	Lake St. Clair	St. Clair Shores Blossom Heath Beach	9/15/2008	434.0
	66	Macomb	Lake St. Clair	St. Clair Shores Blossom Heath Beach	9/24/2008	339.8
	67	Macomb	Lake St. Clair	St. Clair Shores Memorial Park Beach	7/2/2008	481.2
	68	Macomb	Lake St. Clair	St. Clair Shores Memorial Park Beach	7/16/2008	1348.2
	69	Macomb	Lake St. Clair	St. Clair Shores Memorial Park Beach	7/7/2008	410.6
	70	Macomb	Lake St. Clair	St. Clair Shores Memorial Park Beach	6/4/2008	749.4
	71	Macomb	Lake St. Clair	St. Clair Shores Memorial Park Beach	9/15/2008	917.6
	72	Macomb	Lake St. Clair	St. Clair Shores Memorial Park Beach	6/23/2008	335.2
	73	Macomb	Lake St. Clair	St. Clair Shores Memorial Park Beach	6/30/2008	321.6
	74	Macomb	Lake St. Clair	St. Clair Shores Memorial Park Beach	6/11/2008	598.7
	75	Macomb	Lake St. Clair	St. Clair Shores Memorial Park Beach	6/12/2008	2265.1
	76	Macomb	Stoney Creek Lake-Impoundment	Stoney Creek Metropark-Baypoint Beach	7/28/2008	478.0
	77	Macomb	Stoney Creek Lake-Impoundment	Stoney Creek Metropark-Baypoint Beach	7/30/2008	1474.6
	78	Macomb	Stoney Creek Lake-Impoundment	Stoney Creek Metropark-Baypoint Beach	8/13/2008	1198.9
	79	Macomb	Stoney Creek Lake-Impoundment	Stoney Creek Metropark-Baypoint Beach	9/15/2008	579.4
	80	Macomb	Stoney Creek Lake-Impoundment	Stoney Creek Metropark-Eastwood Beach	7/30/2008	387.2
<u>15</u>	<u>81</u>	<u>Manistee</u>	Lake Michigan	Magoon Creek	7/7/2008	1291.1
<u>16</u>	<u>82</u>	<u>Marquette</u>	Lake Superior	Picnic Rocks	7/21/2008	374.0
<u>17</u>	<u>83</u>	<u>Muskegon</u>	Fox Lake	Fox Lake Park Beach	6/30/2008	1414.0
	84	Muskegon	Mona Lake	Mona Lake Park Beach	7/2/2008	1044.0
	85	Muskegon	White Lake	Maple Park	8/12/2008	356.0
	86	Muskegon	White Lake	Maple Park	8/5/2008	602.4
	87	Muskegon	White Lake	Maple Park	7/29/2008	1665.4
<u>18</u>	<u>88</u>	<u>Oakland</u>	Adams Lake	Addison Oaks County Park	6/10/2008	652.0
	89	Oakland	Charnwood Lake	Charnwood	7/22/2008	737.0
	90	Oakland	Crooked Lake	Independence Oaks County Park	6/10/2008	506.0
	91	Oakland	Elizabeth Lake	Bloomfield	6/10/2008	1867.0

Appendix F. 2008 Inland and Great Lakes Beaches Exceedances of WQS (300 *E. coli* per 100 ml)

	County	Water Body	Location	Sampling Date	<i>E. coli</i> Test Results	
92	Oakland	Elizabeth Lake	Elizabeth Lake Estates Improvement Association	7/7/2008	610.0	
93	Oakland	Lower Trout	Bald Mountian Recreation Area	6/9/2008	302.0	
94	Oakland	Lower Trout	Bald Mountian Recreation Area	6/10/2008	352.0	
95	Oakland	Maceday Lake	Moutain View C.C. Subdivision	6/23/2008	491.0	
96	Oakland	Mill Pond	Davisburg Village Beach (Hart Community Center)	6/10/2008	819.0	
97	Oakland	No Name	Thelma Spencer Park	6/10/2008	2419.0	
98	Oakland	Phillips Lake	Camp Dearborn - Lake #1	6/10/2008	347.0	
99	Oakland	Phillips Lake	Camp Dearborn - Lake #5	6/10/2008	2419.0	
100	Oakland	Phillips Lake	Camp Dearborn - Lake #5	6/12/2008	819.0	
101	Oakland	Phillips Lake	Camp Dearborn - Lake #5	6/11/2008	497.0	
102	Oakland	Phipp's Lake	Camp Maas- Sobell Beach	7/14/2008	2027.0	
103	Oakland	Scotch Lake	Scotch Lake Residents	7/24/2008	478.0	
104	Oakland	Scotch Lake	Scotch Lake Residents	7/7/2008	430.0	
105	Oakland	Scotch Lake	Scotch Lake Residents	7/21/2008	945.0	
106	Oakland	Tommys Lake	Camp Agawam Boy Scout Camp	6/10/2008	340.0	
<u>19</u>	<u>107</u>	<u>Oceana</u>	Lake Michigan	Lighthouse Beach at Silver Lake State Park	8/4/2008	395.3
	108	Oceana	Lake Michigan	Mears State Park	7/21/2008	426.3
	109	Oceana	Silver Lake-Lake Michigan	Silver Creek Channel	7/14/2008	410.2
	110	Oceana	Silver Lake-Lake Michigan	Silver Creek Channel	8/4/2008	469.8
<u>20</u>	<u>111</u>	<u>Osceola</u>	Big Lake	Crittenden Park	7/15/2008	313.9
<u>21</u>	<u>112</u>	<u>Ottawa</u>	Lake Macatawa	Dunton Park	7/7/2008	347.9
	113	Ottawa	Lake Macatawa	Dunton Park	6/12/2008	3713.9
	114	Ottawa	Lake Macatawa	Dunton Park	6/16/2008	585.9
	115	Ottawa	Lake Macatawa	Dunton Park	6/10/2008	1188.1
	116	Ottawa	Lake Macatawa	Fallen Leaf Park	6/12/2008	4620.0
	117	Ottawa	Lake Macatawa	Fallen Leaf Park	6/10/2008	600.2
	118	Ottawa	Maplewood Lake	Maplewood Lake Park	7/7/2008	451.5
<u>22</u>	<u>119</u>	<u>Roscommon</u>	Houghton Lake	Houghton Lake Heights	7/9/2008	352.1
<u>23</u>	<u>120</u>	<u>Schoolcraft</u>	Lake Michigan	Roadside Park Beach	6/25/2008	305.8
	121	Schoolcraft	Lake Michigan	Roadside Park Beach	7/2/2008	497.5
	122	Schoolcraft	Lake Michigan	Rogers Beach	7/2/2008	437.1
<u>24</u>	<u>123</u>	<u>St. Clair</u>	Lake Huron	Keewadhin Road Beach	8/11/2008	410.0
<u>25</u>	<u>124</u>	<u>Wayne</u>	Belleville Lake	Van Buren Township Park	8/4/2008	1626.0
	125	Wayne	Belleville Lake	Van Buren Township Park	7/30/2008	14586.0
	126	Wayne	Belleville Lake	Van Buren Township Park	7/23/2008	622.0
	127	Wayne	Belleville Lake	Van Buren Township Park	7/28/2008	7226.0
	128	Wayne	Belleville Lake	Van Buren Township Park	8/1/2008	3628.0
	129	Wayne	Belleville Lake	Van Buren Township Park	6/26/2008	455.0
	130	Wayne	Belleville Lake	Van Buren Township Park	7/3/2008	383.0
	131	Wayne	Belleville Lake	Van Buren Township Park	6/9/2008	310.0
	132	Wayne	Lake St. Clair	Pier Park	8/5/2008	474.0
	133	Wayne	Lake St. Clair	Pier Park	7/31/2008	821.0
	134	Wayne	Lake St. Clair	Pier Park	6/26/2008	677.9
	135	Wayne	Lake St. Clair	Pier Park	7/3/2008	1007.9
	136	Wayne	Lake St. Clair	Pier Park	7/17/2008	445.0
	137	Wayne	Lake St. Clair	Pier Park	6/3/2008	539.1
	138	Wayne	Lake St. Clair	Pier Park	6/12/2008	459.4

Appendix F. 2008 Inland and Great Lakes Beaches Exceedances of WQS (300 *E. coli* per 100 ml)

County	Water Body	Location	Sampling Date	<i>E. coli</i> Test Results
139 Wayne	Rouge River	Phoenix Lake	7/23/2008	306.3
140 Wayne	Rouge River	Phoenix Lake	7/9/2008	337.0
141 Wayne	Rouge River	Phoenix Lake	6/30/2008	732.8
142 Wayne	Rouge River	Phoenix Lake	7/2/2008	308.2
143 Wayne	Rouge River	Phoenix Lake	5/13/2008	434.7
144 Wayne	Rouge River	Phoenix Lake	6/4/2008	707.9
145 Wayne	Rouge River	Phoenix Lake	6/10/2008	306.0
146 Wayne	Rouge River	Phoenix Lake	6/25/2008	5581.6
147 Wayne	Rouge River	Wilcox Lake	7/31/2008	423.0
148 Wayne	Rouge River	Wilcox Lake	6/30/2008	637.1
149 Wayne	Rouge River	Wilcox Lake	7/2/2008	377.8
150 Wayne	Rouge River	Wilcox Lake	7/15/2008	362.8
151 Wayne	Rouge River	Wilcox Lake	5/13/2008	433.3
152 Wayne	Rouge River	Wilcox Lake	6/10/2008	360.0
153 Wayne	Rouge River	Wilcox Lake	6/25/2008	541.8
<u>26</u> 154 Wexford	Billings Lake	Manton Park	6/10/2008	444.6