MI/EGLE/WRD-19/010

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
WATER RESOURCES DIVISION
JULY 2019

STAFF REPORT

MICHIGAN BEACH MONITORING YEAR 2018 ANNUAL REPORT

INTRODUCTION

The Michigan Department of Environment, Great Lakes, and Energy (EGLE) Surface Water Quality Monitoring Program is summarized in the January 1997 report entitled, "A Strategic Environmental Quality Monitoring Program for Michigan's Surface Waters" (Michigan Department of Environmental Quality [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. Create and maintain a statewide database.
3. Determine whether waters of the state are safe for total body contact recreation.
4. Compile data to determine overall water quality.
5. Evaluate the effectiveness of EGLE 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 EGLE 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 the bathing beach has been tested, and if so, where the test results may be accessed.

EGLE 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, EGLE 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.

Funding for Beach Monitoring

Prior to 2000, health departments relied on local funding to conduct beach monitoring programs. Local funding was not sufficient to execute a comprehensive statewide 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) began awarding funds from the Beaches Environmental Assessment and Coastal Health Act (BEACH Act) for monitoring Great Lakes beaches. The National Park Service monitors public beaches in the National Lakeshore including the Sleeping Bear Dunes and Pictured Rocks.

CMI-CWF Grants

The CMI-CWF offered reliable funding for the monitoring of surface water. Since 2000, EGLE distributed $2,169,204 CMI-CWF funds to support the development and implementation of inland lake beach monitoring programs throughout the state. This amount includes 15 awards totaling $200,000 (Appendix A) for monitoring beaches in 2017 and 2018.

The CMI-CWF grant funds are awarded 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, EGLE requires the group to work closely with their local health department.

BEACH Act Grants

EGLE 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 (2014) revised the performance criteria that must be met by grant recipients. Since the BEACH Act was initiated in 2003, EGLE has allocated $3,637,602 including 24 awards in 2018 totaling $173,054 for beach monitoring using the culture-based and/or qPCR method (Appendix B).

Real Time Beach Monitoring Funds

Michigan is the first state to monitor beaches statewide using a new, rapid testing method for water quality to quickly address potential public health concerns and keep people safe. The new qPCR method quickly identifies and measures *E. coli* DNA in a beach water sample. The method provides results on the same day that a sample is collected. To implement the qPCR method, local health departments received $500,000 worth of equipment and grants in 2015 from the Real-Time Beach Monitoring (RTBM) funds from EGLE. In 2016, 12 labs in Michigan successfully completed a validation study confirming their ability to perform the qPCR method for *E. coli*. In 2016 and 2017, labs began analyzing beach water samples with the qPCR method and comparing results to traditional culture-based methods. In 2018, EGLE provided $263,000 from the RTBM and $107,000 from the CMI-CWF for monitoring with qPCR methods to support these labs as they analyzed and compared qPCR results to culture-based results. In addition, Dr. Joan Rose from Michigan State University received $237,000 in 2018 from EGLE to provide these labs with specialized training and technical assistance for the qPCR methods for *E. coli* and source tracking for beach water testing.

2. CREATE AND MAINTAIN A STATEWIDE DATABASE

EGLE developed a centralized statewide database, BeachGuard, which includes beach locations and maps, beach monitoring *E. coli* test results, notification data, and routine sanitary survey data. These data are available electronically to the public via EGLE's Web site (EGLE Beach Web site).

The Web site provides the following information about individual beaches:

- location information (county, water body, and coordinates for latitude and longitude)
- frequency of testing
- monitoring history

- beach closures
- monitoring efforts
- search tools
- options for data export
- information for beach monitoring procedures and methods
- additional links to beach monitoring resources
- contact information for federal, state, and local beach monitoring staff

3. 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 2012) has determined that *E. coli* and *Enterococci* are appropriate indicators for the presence of waterborne pathogens in fresh water.

Routine Sanitary Surveys

As part of the BEACH Act, local health departments in 19 counties conducted 1,221 routine sanitary surveys at 141 Great Lakes beaches and access points to identify sources of pollution that adversely impact beach water quality. Corrective actions have been taken as sources of pollution have been identified. In addition, local health departments in 25 counties conducted 1,472 routine sanitary surveys at 181 inland locations to identify sources of pollution that adversely impact beach water quality at inland lakes. Data for routine sanitary surveys for all of these beaches and locations are available from BeachGuard.

Sources of Bacterial Contamination

Combined Sewer Overflows (CSO) 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 (WWTP). When a storm event occurs, and the volume of 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 (MDEQ, 2016) 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 WQS

EGLE 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, CSOs, and areas influenced by certain agricultural practices is contrary to prudent public health and safety practices, even though WQS may be met.

The BEACH Act funds require that beach monitoring programs are consistent with the USEPA's grant criteria that cite the 2012 Recreation Criteria.

Beach Notification

The public will be warned of unsafe water conditions by beach notifications such as advisories or closures (collectively referred to as an action). These actions are based on beach data, which can show risks due to riptides, spills, harmful algal blooms, an *E. coli* result exceeding the WQS, or other potential threats to public health. Advisories or closures 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 30-day geometric mean to determine if a beach closure or 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.

EGLE developed a centralized statewide database, BeachGuard, which includes bathing beach monitoring *E. coli* test results and notification data. These data are available electronically to the public via BeachGuard (EGLE beach Web site).

Reporting Beach Monitoring and Notification Data

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

As a requirement of the BEACH Act, EGLE submits beach monitoring data to the USEPA. The USEPA has created several Web pages for beach information that can be found at the USEPA Beach Information Web site, along with an online directory of information regarding the water quality at our nation's beaches entitled, "Beach Advisory Closing On-line Notification," that can be found at USEPA Beacon site.

4. COMPILE DATA TO DETERMINE OVERALL WATER QUALITY

List of Beaches

Michigan beaches identified by local health departments and EGLE are listed in Appendices D.1 (Inland Beaches-monitored for *E. coli*), D.2 (Inland Beaches-not monitored for *E. coli*), E.1 (Great Lakes-monitored for *E. coli*), and E.2 (Great Lakes-not monitored for *E. coli*). They are also listed on EGLE's beach Web site. The beaches are arranged alphabetically by county, then water body, then location (site name). There are 734 identified public beaches on inland lakes and rivers and 655 identified public beaches on the Great Lakes.

Western Upper Peninsula Flooding

In June 2018, Governor Snyder declared a State of Emergency for the extreme flooding and severe weather that occurred in the Western Upper Peninsula. The Western Upper Peninsula Heath Department includes five counties in this region: Gogebic, Ontonagon, Houghton, Baraga, and Keweenaw. The severe weather event resulted in up to 7 inches of rain in 9 hours (State of Michigan Emergency Operations Center [SEOC, 2018]). The Western Upper Peninsula Heath Department increased monitoring in response to the flooding with 219 daily samples collected at 12 inland lake and 24 Lake Superior public beaches. Beach closure and advisories were posted for 33 beaches (representing 29% of the total actions of the statewide monitored beaches). A total of 53 beach advisories and closures were posted during the monitoring season with nearly 72% of the total closure days due to storm water runoff and 28% of the closure days due to unknown or other sources.

Synopsis of Statewide *E. coli* Data

Monitoring and notification data reported for Michigan beaches included results of *E. coli* tests, number of advisories or closures (actions) posted, and the number of days for each posting. In 2018, monitoring for *E. coli* was conducted at 448 public beaches in 56 counties, which includes the beaches located in the Western Upper Peninsula. Local beach managers collected 4,928 daily water samples and 192 (4.0%) exceeded Michigan's WQS (Appendices F.1 and F.2). A numerical summary of all monitored public beaches and samples exceeding WQS is found below in Table 1. The percentage of samples exceeding WQS in 2018 was similar to previous years.

Table 1. Number and percent of monitored public beaches and water samples in Michigan exceeding the daily geometric mean of 300 *E. coli* per 100 ml.

Year	Number of Beaches with an Exceedance	Percentage of Beaches with an Exceedance	Number of Samples Exceeding WQS	Percentage of Samples Exceeding WQS
2013	98	24	162	3
2014	76	23	129	4
2015	98	25	212	5
2016	80	19	188	4
2017	73	19	134	3
2018	98	22	192	4
10-Year Average	**95.2**	**23.4**	**192.8**	**3.9**

Notification data in 2018 for actions at *E. coli* monitored beaches are shown in Table 2. A total of 350 of the 448 public beaches (78%) that were monitored for *E. coli* were open during the entire swimming season. The number of beaches reporting an action was 115 (26%). The number of beaches with exceedances differed from the number of beaches with actions due to any of the following reasons: (1) water samples were tested before or after the swimming season; (2) delays in receiving test results; (3) a second test (follow-up sample) was used to confirm an exceedance; (4) preemptive closures or advisories were issued; or (5) contamination advisories were issued for potential chemical or oil discharge.

Table 2. Summary of monitored beaches for *E. coli* with and without actions.

Year	Total Actions for All Beaches	Total Monitored Beaches with an Action	Percentage of Monitored Beaches with an Action	Total Monitored Beaches with No Action	Percentage of Monitored Beaches with No Action
2013	112	84	20	329	80
2014	112	74	22	260	78
2015	147	96	25	291	75
2016	122	77	18	340	82
2017	103	69	18	308	82
2018	182	115	26	333	74
10-Year Average	**138.6**	**92.3**	**22.8**	**313.5**	**77.4**

Synopsis of *E. coli* Data from Great Lakes Beaches

In 2018, 2,478 daily samples were collected at 210 Great Lakes public beaches in 40 counties in Michigan (Appendix E.1). A summary of WQS exceedances and closures/advisories for *E. coli* monitored Great Lakes beaches is provided in Table 3. The totals in Table 3 are higher than totals reported for 2017 (e.g., 106 total exceedances in 2018 compared to 85 in 2017 and 104 total closures and advisories in 2018 compared to 66 in 2017). A summary of the actions reported for Great Lakes beaches over six years (Table 4) showed the totals in 2018 were higher than previous years, except for 2015. However, 17 of the 60 Great Lakes beaches that reported actions in 2018 are located in the Western Upper Peninsula that experienced significant flooding in June 2018.

Table 3. Number of *E. coli* exceedances and actions for Great Lakes beaches monitored in 2018.

A: Number of exceedances Reported per Beach	B: Number of Beaches with Exceedances	**Total Number of Exceedances** $(A * B)$	C: Number of Closures or Advisories per Beach	D: Number of Beaches with Closures or Advisories.	**Total Number of Closures or Advisories** $(C * D)$
1	31	**31**	1	29	**29**
2	11	**22**	2	24	**48**
3	8	**24**	3	4	**12**
4	3	**12**	4	1	**4**
6	1	**6**	5	1	**5**
11	1	**11**	6	1	**6**
Total	**55**	**106**	**Total**	**60**	**104**

Table 4. Number of monitored Great Lakes beaches for *E. coli* with and without an action.

Year	**Great Lakes Monitored Beaches with an Action**	**Great Lakes Monitored Beaches Without an Action**	**Total Great Lakes Monitored Beaches**
2013	54	185	239
2014	50	110	160
2015	65	138	203
2016	43	166	209
2017	43	142	185
2018	60	150	210
10-Year Average	**59.4**	**158.3**	**217.7**

A summary of the 2018 beach action data for each of the Great Lakes, Lake St. Clair, and connecting channels is provided in Table 5. The total number of days with an action increased by about 35% compared to 2017. However, the significant flooding in the Western Upper Peninsula resulted in 160 days with an action for Lake Superior beaches compared to 9 days in 2017. A summary of sources of contamination reported for actions in the Great Lakes, Lake St. Clair, and connecting channels is provided in Table 6.

Table 5. Data summary for the Great Lakes, Lake St. Clair, and connecting channels.

Water Body	Number of Public Beaches	Number of Monitored Beaches	Number of Beaches with an Exceedance	Number of Exceedances	Number of Beaches with an Action	Number of Actions	Total Number of Days with an Action
Lake Erie	13	2	2	4	2	4	4
Lake Huron	183	55	20	43	20	31	117
Lake Michigan	311	113	22	31	13	21	24
Lake Superior	127	32	6	6	20	32	160
Lake St. Clair	6	4	4	18	4	13	77
Great Lakes Connecting Channels	15	4	1	4	1	3	4
Total	**655**	**210**	**55**	**106**	**60**	**104**	**386**

Table 6. Contamination sources reported for advisories and closures, days affected, and the number of beaches for the Great Lakes, Lake St. Clair, and connecting channels for the specific cause of the beach action.

Contamination Source	Number of Actions with reporting Source	Number of Days Affected by Source	Number of Beaches Reporting Source
Storm Water	49	158	34
Sanitary Sewer Overflow	1	6	1
Wildlife	2	2	2
Other	1	6	1
Unknown	51	214	29
Total	**104**	**386**	**67**[1]

[1] Multiple sources reported for some beaches

Synopsis of *E. coli* Data from Inland Beaches

In 2018, 2,450 daily samples were collected at 238 inland lake public beaches in 41 counties in Michigan. A summary of WQS exceedances and closures/advisories for inland beaches is provided in Table 7. The number of monitored inland beaches varies by year and Table 8 shows the number of beaches with an action was higher in 2018 as compared to previous years. Of the 55 inland beaches that reported actions, 16 of these beaches are in the Western Upper Peninsula and contributed 43% of the total days impacted by an action. A summary of sources of contamination reported for beach actions for inland lakes is provided in Table 9.

Table 7. Number of exceedances and actions for inland beaches monitored in 2018.

A: Number of exceedances Reported per beach	B: Number of Beaches with Exceedances	**Total Number of exceedances** $(A * B)$	C: Number of actions per beach	D: Number of beaches with actions	**Total Number of Actions** $(C * D)$
1	27	**27**	1	38	**38**
2	10	**20**	2	13	**26**
3	1	**3**	3	3	**9**
4	2	**8**	5	1	**5**
6	1	**6**			
9	1	**9**			
13	1	**13**			
Total	**43**	**86**	**Total**	**55**	**78**

Table 8. Number of monitored inland lake beaches with and without an action.

Year	Inland Lake Monitored Beaches with an Action	Inland Lake Monitored Beaches Without an Action	Total Inland Lake Monitored Beaches
2013	28	146	174
2014	24	150	174
2015	31	153	184
2016	34	174	208
2017	26	166	192
2018	55	183	238
10-Year Average	**33.0**	**155.3**	**188.3**

Table 9. Contamination sources reported for actions, days affected, and the number of beaches reporting the specific cause of an action for inland lakes.

Contamination Source	Number of Actions with reporting Source	Number of Days Affected by Source	Number of Beaches Reporting Source
Storm Water	25	263	21
Wildlife	4	53	4
Other Reason	3	21	1
Unknown	46	430	39
Total	**78**	**767**	**65**[1]

[1] Multiple sources reported for some beaches

Synopsis of Rapid Testing at Sleeping Bear Dunes National Lakeshore

The National Park Service monitored 11 beach locations (Appendix G1) in two counties in the Sleeping Bear Dunes National Lakeshore using the qPCR Method 1609 for Enterococci developed by the USEPA. The rapid method was developed and used by the USEPA in epidemiological studies to derive a geometric mean and statistical threshold value for two risk levels. The USEPA also suggested the use of a beach action value (BAV) as a conservative, precautionary tool that may be used without adopting it into a WQS (USEPA, 2012). The National Park Service posted an advisory when results from the qPCR method exceeded the BAV of 2,000 calibrator cell equivalent (cce) of enterococci per 100 ml.

In 2018, the National Park Service collected 158 daily water samples and 5 (3%) exceeded the BAV (Table 10). Four beaches reported samples exceeding the BAV (Appendix G2), which resulted in 5 advisories. The total number of days with an advisory ranged from 1 to 2 days (Table 11).

Table 10. Number and percent of monitored public beaches and water samples at Sleeping Bear Dunes exceeding the BAV of 2,000 cce of Enterococci per 100 ml.

Water Body Location	Number of Beaches Monitored	Number of Beaches Exceeding BAV	Percentage of Beaches Exceeding BAV	Number of Samples Collected	Number of Samples Exceeding BAV	Percentage of Samples Exceeding BAV
Lake Michigan	6	1	17%	84	1	1%
Inland	5	3	60%	74	4	5%
All Beaches	**11**	**4**	**36%**	**158**	**5**	**3%**

Table 11. Number of exceedances, advisories, and total days posted with advisory for beaches that exceeded BAV of 2,000 cce of Enterococci per 100 ml.

Name of Beach	Number of Exceedances	Number of Advisories	Total Days Posted with an Advisory
Good Harbor Bay	1	1	1
North Bar Lake	1	1	1
Good Harbor Creek Outlet	1	1	1
Shalda Creek	2	2	2
Total	**5**	**5**	**5**

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

<u>Beach Water Quality Data that do not meet WQS</u>

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 EGLE routinely review beach water quality data. 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 Total Maximum Daily Loads (TMDL) 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 be attaining 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:

- Ten percent of the monthly geometric mean samples exceed the monthly geometric mean WQS of 130 *E. coli* per 100 ml based on weekly samples collected over a minimum of 5 weeks.
- Ten percent of the daily geometric mean samples exceed the daily maximum WQS of 300 *E. coli* per 100 ml based on weekly samples collected over a minimum of 5 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. The beaches that exceed WQS per the decision elements are listed on the Section 303(d) list, which is available in the most recent "Water Quality and Pollution Control in Michigan Sections 303(d), 305(b), and 314 Integrated Report."

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Appendix A. CMI-CWF Grants for Inland Lake Beaches 2017-2018.

2017-2018 CMI-CWF Grantees	Granted Amount	Total Monitored Beaches
Barry-Eaton District Health Department	$8,200.00	4
Central Michigan District Health Department	$28,736.00	14
District Health No. 2	$26,200.00	16
District Health Department No. 4	$5,200.00	2
District Health Department No. 10	$3,750.00	6
Health Department of Northwest Michigan	$19,267.00	19
Lake Superior State University	$7,883.00	3
Luce-Mackinac-Alger-Schoolcraft District Health Department	$5,200.00	2
Macomb County Health Department	$5,200.00	2
Oakland County Health Divison	$25,528.00	75
Public Health Muskegon County	$18,536.00	15
Watershed Center Grand Traverse Bay	$15,700.00	9
Wayne County Department of Health, Veterans and Community	$8,200.00	4
Western UP District Health Department	$11,200.00	6
Wexford County Drain Commision	$11,200.00	6
TOTAL	**$200,000.00**	**183**

Appendix B. 2018 BEACH Act Grants for Great Lakes Beaches.

Local Health Department	Allocated Amount
Allegan County Health Department	$5,000.00
Bay County Health Department	$5,000.00
Berrien County Health Department	$9,323.00
Central Michigan District Health Department	$8,706.00
Chippewa County Health Department	$6,853.00
Delta-Menominee District Health Department	$5,000.00
Detroit Belle Isle (DNR)	$2,500.00
District Health Department #2	$10,558.00
District Health Department #4	$8,706.00
District Health Department #10	$11,485.00
Huron County Health Department	$9,014.00
Luce-Mackinac-Alger-Schoolcraft District Health Department	$5,000.00
Macomb	$5,000.00
Marquette (City of Marquette)	$5,000.00
Monroe County Health Department	$5,000.00
Muskegon County Health Department	$9,014.00
Northwest Michigan Community Health Agency	$14,573.00
Ottawa County Health Department	$7,779.00
St. Clair County Health Department	$9,632.00
Sanilac County Health Department	$5,000.00
Van Buren/Cass District Health Department	$5,000.00
Watershed Center (Grand Traverse & Benzie-Leelanau)	$9,014.00
Wayne County Health Department	$2,500.00
Western Upper Peninsula District Health Department	$8,397.00
TOTAL	**$173,054.00**

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 enterolitica	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. Inland Beaches Monitored 2018.

County #	Total Beach #	County	County Beach #	Waterbody	* DNR Owned	Beach Location
1	1	Alcona	1	Alcona Pond		Alcona Park East Campground
	2	Alcona	2	Brownlee Lake		Village of Lincoln Park
	3	Alcona	3	Cedar Lake		Greenbush Township beach
	4	Alcona	4	Hubbard Lake		Caledonia Township Park
2	5	Alpena	1	Long Lake		Long Lake Park
3	6	Antrim	1	Central Lake		Thurston Park
	7	Antrim	2	Elsworth Lake		Wooden Shoe Park
	8	Antrim	3	Lake Bellaire		Richardi Park
	9	Antrim	4	Torch Lake		Day Park
	10	Antrim	5	Torch Lake		Eastport
4	11	Arenac	1	Oasis Lake		Oasis Lake County Park
5	12	Barry	1	Gun Lake	*	Main Beach - Day Use Area
	13	Barry	2	Gun Lake	*	Yankee Springs Recreation Area Campground Beach
	14	Barry	3	Thornapple Lake		Charlton Park
6	15	Bay	1	Kawkawlin River		Boat Launch on Kawkawlin River
	16	Bay	2	Saginaw River		Vet's Park North Bay City
7	17	Benzie	1	Crystal Lake		Bellows Beach
	18	Benzie	2	Crystal Lake		Beulah Beach
	19	Benzie	3	Lake Ann		Almira Township Park Beach
8	20	Charlevoix	1	Thumb Lake		Thumb Lake Beach
	21	Charlevoix	2	Walloon Lake		Melrose Township Park
9	22	Chippewa	1	Dukes Lake		Dukes Lake
	23	Chippewa	2	Kinross Lake		Kinross Lake
	24	Chippewa	3	Monocle Lake		Monocle Lake
10	25	Clare	1	Budd Lake	*	Wilson State Park
11	26	Eaton	1	Fox Memorial Park Beach		Fox Memorial Park
12	27	Emmet	1	Crooked Lake		Little Traverse Township Beach
	28	Emmet	2	Crooked Lake		Oden Beach
	29	Emmet	3	Pickerel Lake		Camp Petosega
	30	Emmet	4	Walloon Lake		Resort Pike Road Beach
13	31	Genesee	1	Byram Lake		Clover Beach
	32	Genesee	2	Copneconic Lake	*	Camp Copneconic
	33	Genesee	3	Copneconic Lake		Copneconic Day Beach
	34	Genesee	4	Dollar lake		Dollar Lake
	35	Genesee	5	Hasler Lake		Hasler Lake Campground
	36	Genesee	6	Holloway Reservoir		Buttercup Beach
	37	Genesee	7	Kelly Lake		Kelly Lake
	38	Genesee	8	Lake Callis		Lake Callis
	39	Genesee	9	Mott Lake		Bluebell Beach
	40	Genesee	10	Pinewood Lake		Beach at Pinewood Lake
	41	Genesee	11	Silver Lake		City Park Beach
14	42	Gladwin	1	Cedar River		Gladwin City Park
	43	Gladwin	2	Ross Lake		Beaverton City Park
	44	Gladwin	3	Wixom Lake		Pleasant Beach
15	45	Gogebic	1	Bobcat Lake		Bobcat
	46	Gogebic	2	Lake Gogebic		Gogebic County Park
	47	Gogebic	3	Lake Gogebic	*	Lake Gogebic State Park Beach
	48	Gogebic	4	Sunday Lake		Sunday Lake Beach
16	49	Grand Traverse	1	Duck Lake	*	Interlochen State Park Beach
	50	Grand Traverse	2	Long Lake (AKA: Mickey Lake)		Gilbert Beach
	51	Grand Traverse	3	Long Lake (AKA: Mickey Lake)		Taylor Park
	52	Grand Traverse	4	North Twin Lake		Twin Lakes Camp Beach
17	53	Houghton	1	Courtney Lake		Courtney Lake
	54	Houghton	2	Lake Roland	*	Twin Lakes State Park
	55	Houghton	3	Rice Lake		Rice Lake
	56	Houghton	4	Torch Lake		Dreamland Camp
18	57	Ingham	1	Burchfield Pond		Burchfield Park
	58	Ingham	2	Hawk Island		Hawk Island County Park
	59	Ingham	3	Lake Lansing		Lake Lansing Park South
	60	Ingham	4	Valhalla Pond		Valhalla Park
19	61	Iosco	1	Foote Pond		Old Orchard Park
	62	Iosco	2	Long Lake		Long Lake Public Access
	63	Iosco	3	Sand Lake		Sand Lake - Sand Lake Road Access
	64	Iosco	4	Van Ettan Lake		Oscoda Township Park- Van Ettan Lake
20	65	Isabella	1	Borrow Pit		Herrick County Park
	66	Isabella	2	Chippewa River		Deerfield County Park

Appendix D.1. Inland Beaches Monitored 2018.

County #	Total Beach #	County	County Beach #	Waterbody	* DNR Owned	Beach Location
	67	Isabella	3	Coldwater Lake		Coldwater Park
	68	Isabella	4	Halls Lake		Halls Lake
	69	Isabella	5	Lake Isabella		Essex Rd
	70	Isabella	6	Lake Isabella		South Park
	71	Isabella	7	Lake Isabella		Termino Rd
	72	Isabella	8	Littlefield Lake		Littlefield Lake
21	73	Kalamazoo	1	Blue Lake		Cold Brook County Park
	74	Kalamazoo	2	Campbell Lake		Robert Morris Park
	75	Kalamazoo	3	Eagle Lake	*	Fort Custer Recreation Area Beach
	76	Kalamazoo	4	Gull Lake		Ross Township Park
	77	Kalamazoo	5	Hogsett Lake		Prairie View County Park
	78	Kalamazoo	6	Long Lake		Ramona Park
	79	Kalamazoo	7	Sunset Lake		Sunset Lake Park
	80	Kalamazoo	8	Swimmers Lake		Markin Glen County Park
	81	Kalamazoo	9	Woods Lake		Woods Lake Beach
22	82	Keweenaw	1	Gratiot Lake		Gratiot Lake
	83	Keweenaw	2	Lake Medora		Lake Medora
23	84	Leelanau	1	Lake Leelanau		Nedowâ€™s (Barthalomew) Beach
	85	Leelanau	2	South Bar Lake		South Bar Lake - South End
24	86	Livingston	1	Bishop Lake	*	Brighton State Recreation Area
	87	Livingston	2	Chenango Lake		Camp Talahi
	88	Livingston	3	Church Lake		Wildwood Ranch
	89	Livingston	4	Cook Lake		Taylor's Beach
	90	Livingston	5	Cordley Lake		Varsity Day Camp
	91	Livingston	6	Haynor Lake		Hamburg Fitness Center & Camp
	92	Livingston	7	Kent Lake	*	Island Lake Recreation Area - Kent Lake
	93	Livingston	8	Lake Chemung		Lake Chemung Outdoor Resort
	94	Livingston	9	Lake Walden		Waldenwoods Resort
	95	Livingston	10	Pleasant Lake		Howell Nature Center
	96	Livingston	11	Sandy Bottom Lake		Water's Edge Camp
	97	Livingston	12	Spring Mill Pond	*	Island Lake Recreation Area
	98	Livingston	13	Thompson Lake		Howell City Park
	99	Livingston	14	Winans Lake		Lakelands Golf & Country Club
25	100	Macomb	1	Stony Creek Lake-Impoundment		Stony Creek Metropark-Baypoint Beach
	101	Macomb	2	Stony Creek Lake-Impoundment		Stony Creek Metropark-Eastwood Beach
26	102	Marquette	1	Dead River Reservoir		Marquette Tourist Park Beach
27	103	Midland	1	Kiwassee Lake		Stratford Woods Park Beach
	104	Midland	2	Sanford Lake		Sanford Lake Park
28	105	Muskegon	1	Big Blue Lake		Blue Lake County Park Beach
	106	Muskegon	2	Duck Lake	*	Duck Lake State Park Beach
	107	Muskegon	3	Fox Lake		Fox Lake Park Beach
	108	Muskegon	4	Half Moon Lake		Moore County Park Beach
	109	Muskegon	5	Mona Lake		Mona Lake Park Beach
	110	Muskegon	6	Mona Lake		Ross Park Beach
	111	Muskegon	7	Muskegon Lake		Harbor Towne Beach
	112	Muskegon	8	Muskegon Lake	*	Muskegon State Park - Muskegon Lake Side
	113	Muskegon	9	Muskegon Lake		Water Sports Park
	114	Muskegon	10	Twin Lake		Twin Lake County Park Beach
	115	Muskegon	11	West Lake		Paddley Park
	116	Muskegon	12	White Lake		Maple Park
	117	Muskegon	13	Wolf Lake		Sunset Park
	118	Muskegon	14	Wolf Lake		Wolf Lake County Park
29	119	Oakland	1	Allen Lake		Fox Bay Civic Association
	120	Oakland	2	Big Seven Lake	*	Seven Lakes State Park
	121	Oakland	3	Brendel Lake		Brendle Heights - Hillwood
	122	Oakland	4	Bush Lake		Holly Village Beach
	123	Oakland	5	Carter Lake		Thelma Spencer Park
	124	Oakland	6	Cass Lake	*	Dodge Park #4
	125	Oakland	7	Cass Lake		Keego Harbor City Beach
	126	Oakland	8	Cass Lake		Pontiac Yacht Club
	127	Oakland	9	Chalmers Lake		Woodcrest Farms Subdivision - Claridion Street
	128	Oakland	10	Charlick Lake		Highland Hills - Charlick Outlot
	129	Oakland	11	Childs Lake		Child Lake Estates
	130	Oakland	12	Commerce Lake		Log Cabin Sub.
	131	Oakland	13	Commerce Lake		Oakley Park
	132	Oakland	14	Commerce Lake		Van Stone #1

Appendix D.1. Inland Beaches Monitored 2018.

County #	Total Beach #	County	County Beach #	Waterbody	* DNR Owned	Beach Location
	133	Oakland	15	Crooked Lake		Independence Oaks County Park
	134	Oakland	16	Darb Lake		Mission Springs Subdivision
	135	Oakland	17	Deer Lake		Independence Township Village Beach
	136	Oakland	18	Duck Lake		Axford Acres - Ramada Road
	137	Oakland	19	Duck Lake		Seven Craven Association
	138	Oakland	20	Eagle Lake		Eagle Lake Road
	139	Oakland	21	Eagle Lake		Lakeland Estates
	140	Oakland	22	Fish Lake		Camp Ohiyesa - North
	141	Oakland	23	Gilbert Lake		Gilbert Lake Estates
	142	Oakland	24	Gilbert Lake		Lone Pine Estates
	143	Oakland	25	Green Lake		Bay Court Park
	144	Oakland	26	Green Lake		Camp Wathana
	145	Oakland	27	Green Lake		Clearwater Campground
	146	Oakland	28	Handsome Lake		Crossroads For Youth
	147	Oakland	29	Heron Lake	*	Holly Recreation Area - Heron Beach
	148	Oakland	30	Kent Lake		Kensington - Maple beach
	149	Oakland	31	Kent Lake		Kensington - Martindale Beach
	150	Oakland	32	Lake Four		Haas Lake Park #4
	151	Oakland	33	Lake One		Haas Lake Park #1
	152	Oakland	34	Lake Three		Haas Lake Park #3
	153	Oakland	35	Lake Two		Haas Lake Park #2
	154	Oakland	36	Long Lake		Christ the King Church Camp
	155	Oakland	37	Loon Lake		Birch Park
	156	Oakland	38	Loon Lake		Indianwood
	157	Oakland	39	Lower Trout	*	Bald Mountain Recreation Area
	158	Oakland	40	Orchard Lake		Country Club (5000 W. Shore Dr)
	159	Oakland	41	Orion Lake		Greens Park Village Beach
	160	Oakland	42	Phillips Lake		Camp Dearborn - Lake #1
	161	Oakland	43	Phillips Lake		Camp Dearborn - Lake #5
	162	Oakland	44	Phillips Lake		Camp Maas - Rodecker
	163	Oakland	45	Phillips Lake		Camp Maas- Sobell Beach
	164	Oakland	46	Pontiac		Skull Island North (Barnacle Bay)
	165	Oakland	47	Pontiac		Skull Island South (Shark Reef)
	166	Oakland	48	Pontiac Lake	*	Pontiac Recreation Area
	167	Oakland	49	Prince Lake		Upland Hills Farm
	168	Oakland	50	Proud Lake	*	Proud Lake Recreation Area Campground
	169	Oakland	51	Reed Lake		Reed Lake Property Owners
	170	Oakland	52	Round Lake		Scripter Village Park Township Beach
	171	Oakland	53	Sand Lake	*	Seven Lakes State Park - Campground
	172	Oakland	54	Scotch Lake		Scotch Lake Residents
	173	Oakland	55	Shorewood Lake		Shorewood Hills
	174	Oakland	56	Square Lake		Square Lake Hills Apt. #2
	175	Oakland	57	Stewart Lake		Groveland Oaks County Park - Paradise Beach
	176	Oakland	58	Stony Lake		Stony Lake Park
	177	Oakland	59	Sun Lake		Finnish Day Camp
	178	Oakland	60	Sylvan Lake		Ferndale
	179	Oakland	61	Teeple Lake	*	Teeple Lake Recreation Area - Highland State Park
	180	Oakland	62	Tipsico Lake		Brown's Landing Mobile Home Park
	181	Oakland	63	Tommys Lake		Camp Agawam Boy Scout Camp
	182	Oakland	64	Troy Lake		Troy Lake Estates
	183	Oakland	65	Upper Pettibone Lake		657 Dunleavy
	184	Oakland	66	Walled Lake		Beachwalk Apartments
	185	Oakland	67	Walled Lake		E.V. Mercer City Beach
	186	Oakland	68	Walled Lake		Lakeshore Park
	187	Oakland	69	Walnut Lake		Bloomfield Parks & Recreation/West Hills M.S.
	188	Oakland	70	Walters Lake		Sunny Beach #2 - Clarkston Road
	189	Oakland	71	Williams Lake		Crest Beach - Landowners
	190	Oakland	72	Wolverine Lake		Spring Lake Heights
	191	Oakland	73	Wolverine Lake		Wolverine Lake Manor
	192	Oakland	74	Woodhull Lake		Woodhull Lake Civic Association
	193	Oakland	75	Wormer Lake		Lake Angelus - Golfview Estates
30	194	Ogemaw	1	Devoe Lake	*	Rifle River Recreation Area
	195	Ogemaw	2	Elbow Lake		Mills Township Park
	196	Ogemaw	3	Grousehaven Lake	*	Rifle River Recreation Area Campground Beach
	197	Ogemaw	4	Hardwood Lake		Hardwood Lake
	198	Ogemaw	5	Rifle Lake		Shady Shores Park Subdivision Beach

Appendix D.1. Inland Beaches Monitored 2018.

County #	Total Beach #	County	County Beach #	Waterbody	* DNR Owned	Beach Location
	199	Ogemaw	6	Skidway Lake		Skidway Lake
31	200	Ontonagon	1	Bond Lake		Bond Falls Flowage
	201	Ontonagon	2	Clark Lake		Clark Lake
	202	Ontonagon	3	Lake Gogebic		Bergland Township Park
	203	Ontonagon	4	Lake Gogebic		Ontonagon County Park
	204	Ontonagon	5	Steusser Lake		Steusser Lake
32	205	Osceola	1	Big Lake		Crittenden Park
	206	Osceola	2	Muskegon River		Crawford Park
	207	Osceola	3	Rose Lake		Rose Lake County Park
33	208	Oscoda	1	Perry Lake		Comins Township. Park
	209	Oscoda	2	Smith Lake		Oscoda County Park
34	210	Otsego	1	Big lake		Big Lake
	211	Otsego	2	Otsego Lake		Arbutus Beach
	212	Otsego	3	Otsego Lake		Otsego County Park
	213	Otsego	4	Otsego Lake	*	Otsego State Park
	214	Otsego	5	Otsego Lake		WahWahSoo Beach
35	215	Presque Isle	1	Sunken Lake		Sunken Lake County Park
36	216	Roscommon	1	Higgins Lake	*	North Higgins State Park
	217	Roscommon	2	Higgins Lake	*	South Higgins Lake State Park
	218	Roscommon	3	Houghton Lake		Denton Township Public Beach
	219	Roscommon	4	Houghton Lake		Houghton Lake Heights
	220	Roscommon	5	Lake St. Helen		Richfield Township Public Fishing Site
37	221	Schoolcraft	1	Indian Lake	*	Indian Lake State Park
	222	Schoolcraft	2	Quarry Beach		Quarry Beach
38	223	Washtenaw	1	Bruin Lake	*	Pinckney Recreation Area
	224	Washtenaw	2	Half Moon Lake	*	Pinckney Recreation Area
	225	Washtenaw	3	Independence Lake		Independence Lake County Park
	226	Washtenaw	4	Silver Lake	*	Pinckney Recreation Area
	227	Washtenaw	5	Sugarloaf Lake	*	Waterloo Recreation Area
39	228	Wayne	1	Belleville Lake		Van Buren Township Park
	229	Wayne	2	Blue Heron Pond		Blue Heron Condominiums Pond
	230	Wayne	3	Newburgh Lake		Newburgh and Sumac Pointes - Hines Park
	231	Wayne	4	Sherwood Lake		Sherwood Park
	232	Wayne	5	Silver Spring Lake		Silver Spring Lake
40	233	Wexford	1	Billings Lake		Manton Park
	234	Wexford	2	Lake Cadillac		Cadillac City Dock
	235	Wexford	3	Lake Cadillac		City Park
	236	Wexford	4	Lake Cadillac		Kenwood Park
	237	Wexford	5	Lake Meauwataka		Colfax Township Park
	238	Wexford	6	Lake Mitchell	*	Mitchell State Park

Appendix D.2. Inland Beaches Not Monitored 2018.

County #	Total Beach #	County	County Beach #	Waterbody	* DNR Owned	Beach Location
1	1	Alcona	1	Alcona Pond		Alcona Pond West Campground
	2	Alcona	2	Hubbard Lake		Alcona Township Park
2	3	Alger	1	AuTrain Lake Campground		AuTrain Lake Campground USFS
	4	Alger	2	Corner Lake		Corner Lake Campground
	5	Alger	3	Dear Lake Park	*	Deer Lake Park
	6	Alger	4	Kingston Lake	*	Kingston Lake State Forest Campground
	7	Alger	5	Otter Lake		Otter Lake Campground
	8	Alger	6	Petes Lake		Petes Lake Campground
3	9	Allegan	1	Dumont Lake		Dumont Lake County Park Beach
	10	Allegan	2	Ely Lake		Ely Lake Campground Beach
	11	Allegan	3	Gun Lake		Gun Lake County Park Beach
	12	Allegan	4	Little John Lake		Little John Lake County Park Beach
	13	Allegan	5	Swan Creek Pond		Pine Point Campground Beach
4	14	Alpena	1	Beaver Lake		Beaver Lake Park
	15	Alpena	2	Lake Avalon		Lake Avalon Public Access
	16	Alpena	3	Long Lake		Long Lake Day Use
5	17	Antrim	1	Torch Lake		Torch River Bridge
	18	Antrim	2	Torch River		Torch River Sand Bar
6	19	Arenac	1	AuGres River	*	AuGres River - DNR Access @ pier
	20	Arenac	2	Flint Park Hunt Club Lake		Flint Park Hunt Club
	21	Arenac	3	Man made Pond		Big Bend Campground
	22	Arenac	4	Man made Pond		Outdoor Adventures
	23	Arenac	5	Pine River	*	Pine River - Arenac County
	24	Arenac	6	Rifle River		Rifle River
7	25	Barry	1	Alqonquin Lake		YMCA Algonquin Childrens Summer Camp
	26	Barry	2	Gull Lake		Prairieville Township Park
	27	Barry	3	Gun Lake	*	Old Beach - Day Use Area
8	28	Bay	1	Saginaw River		Independence Bridge
	29	Bay	2	Saginaw River		Vet's Park South River Rd.
9	30	Benzie	1	Crystal Lake		Bellows Beach (DEQ 2014)
	31	Benzie	2	Crystal Lake		Beulah beach (DEQ 2014)
	32	Benzie	3	Crystal Lake		South Shore near Beulah
	33	Benzie	4	Otter Creek Beach		Sleeping Bear Dunes-Otter Creek Beach
	34	Benzie	5	Platte River		Sleeping Bear Dunes-Platte River Outlet
10	35	Berrien	1	Paw Paw Lake		Paw Paw Lake
	36	Berrien	2	St. Joseph River		Bertrand Park
	37	Berrien	3	St. Joseph River		Niles - French Paper
	38	Berrien	4	St. Joseph River		Niles - Marmont
11	39	Branch	1	First Lake		Quincy Park
	40	Branch	2	Messenger Lake		Memorial Park
12	41	Calhoun	1	Duck Lake		Springport
	42	Calhoun	2	Goguac Lake		Willard Beach in Battle Creek
13	43	Charlevoix	1	Huffman Lake		Hudson Township Park
	44	Charlevoix	2	Lake Charlevoix		Lower Lake Drive
14	45	Cheboygan	1	Black Lake	*	Black Lake S.F.C.G.
	46	Cheboygan	2	Black Lake		Bluffs Beach
	47	Cheboygan	3	Burt Lake	*	Burt Lake State Park
	48	Cheboygan	4	Burt Lake		Devoe Beach
	49	Cheboygan	5	Burt Lake		Hoppie's Launch
	50	Cheboygan	6	Burt Lake	*	Maple Bay Park
	51	Cheboygan	7	Douglass Lake		Ryder's Landing
	52	Cheboygan	8	Mullett Lake	*	Aloha State Park
	53	Cheboygan	9	Mullett Lake		Boy Scout Launch
	54	Cheboygan	10	Mullett Lake		Foot Road Park
	55	Cheboygan	11	Mullett Lake		Grand View Beach
	56	Cheboygan	12	Mullett Lake		Hobert's Launch
	57	Cheboygan	13	Mullett Lake		Orchard Beach
	58	Cheboygan	14	Mullett Lake		Polish Line Beach
	59	Cheboygan	15	Mullett Lake		Topinabee Park
	60	Cheboygan	16	Webber Lake	*	Webber Lake State Park
15	61	Chippewa	1	Caribou Lake		Caribou Lake
	62	Chippewa	2	Carp Lake		Trout Lake
	63	Chippewa	3	Soldiers Lake		Soldiers Lake
16	64	Clare	1	Arnold Lake		Arnold Lake Beach
	65	Clare	2	Bertha Lake		Bertha Lake Beach
	66	Clare	3	Cranberry lake		Cranberry Lake South
	67	Clare	4	Crooked Lake		Crooked Lake/Camp Neyati Beach
	68	Clare	5	Crooked Lake		Hillcrest Public Landing
	69	Clare	6	Doc and Tom Lake		Lake of the Pines

Appendix D.2. Inland Beaches Not Monitored 2018.

County #	Total Beach #	County	County Beach #	Waterbody	* DNR Owned	Beach Location
	70	Clare	7	Dodge Lake		Dodge Lake Beach
	71	Clare	8	George Lake		Lake George Public Landing
	72	Clare	9	Grass Lake		Sandy Shores Beach
	73	Clare	10	Hayes Lake (Cranberry Lake)		Oak Hills Children's Camp
	74	Clare	11	Lilly Lake		Lilly Lake Beach
	75	Clare	12	Long Lake		Long Lake Beach
	76	Clare	13	Muskegon River		Muskegon River Township Park
	77	Clare	14	Sand Lake		Sand Lake Beach
	78	Clare	15	Shingle Lake		Shingle Lake Park
	79	Clare	16	Silver Lake		Silver Lake Park
	80	Clare	17	Surrey Lake		Surrey Lake
	81	Clare	18	Townline Lake		Cedar Shores Beach
17	82	Clinton	1	Lake Ovid	*	Sleepy Hollow State Park Beach
18	83	Crawford	1	Higgins Lake		Camp Westminster on Higgins Lake
19	84	Eaton	1	Grand River		Lincoln Brick Park
20	85	Emmet	1	Crooked Lake		Oden
	86	Emmet	2	Larks Lake		Pioneer Picnic Park
	87	Emmet	3	Pickerel Lake		Channel Beach
21	88	Genesee	1	Buell Lake		Boat Ramp at Buell Lake
	89	Genesee	2	Covenant Hill Camp		Covenant Hill Camp
	90	Genesee	3	Crane Lake		Crane Lake Beach
	91	Genesee	4	Crooked Lake		Crooked Lake
	92	Genesee	5	Fenton Lake	*	DNR Boat Dock-Fenton Lake
	93	Genesee	6	Fenton Lake		Fenton Lake Marina
	94	Genesee	7	Fenton Lake		Township Hall
	95	Genesee	8	Flagstone Point		Flagstone Point Beach
	96	Genesee	9	Golden Rod Lake		Golden Rod Beach
	97	Genesee	10	Hasler Lake		Beach at Hasler Lake
	98	Genesee	11	Holloway Reservoir		Walleye Pike Dock
	99	Genesee	12	Kearsley Reservoir		Kearsley Reservoir Beach
	100	Genesee	13	Lake Helene		Lake Helene Beach
	101	Genesee	14	Lake Linda		Lake Linda
	102	Genesee	15	Lake Ponemah	*	DNR Boat Launch at Lake Ponemah
	103	Genesee	16	Lake Shinangaug		Lake Shinangaug
	104	Genesee	17	Linden Mill Pond		Linden Mill Pond Beach
	105	Genesee	18	Lobdell Lake	*	DNR Boat Launch at Lobdell Lake
	106	Genesee	19	Loon Lake		Loon Lake Beach
	107	Genesee	20	Marl Lake		Marl Lake Beach
	108	Genesee	21	McCaslin Lake		McCaslin Lake Beach
	109	Genesee	22	McKane Lake		McKane Lake Beach
	110	Genesee	23	Mott Lake		Bluegill Boat Ramp
	111	Genesee	24	Mott Lake		Mott Lake Beach
	112	Genesee	25	Mott Lake Stepping Stone		Mott Lake Stepping Stone Beach
	113	Genesee	26	Myers Lake		Myers Lake
	114	Genesee	27	Otter Lake		Griswold Park
	115	Genesee	28	Pine Lake		Pine Lake Beach
	116	Genesee	29	Silver Lake		Silver Lake Marina
	117	Genesee	30	Smokerise Lake		Smokerise Beach
	118	Genesee	31	Squaw Lake		Squaw Lake Beach
	119	Genesee	32	Thread Lake		Thread Lake Beach
	120	Genesee	33	West Sister Lake		West Sister Lake
22	121	Gladwin	1	Cedar River		Cedar River Campground Beach
	122	Gladwin	2	Cedar River		Gladwin North Park
	123	Gladwin	3	Flowing well/pond		Gilman Springs Swimming Area
	124	Gladwin	4	Hoister Lake		Hoister Lake Beach
	125	Gladwin	5	House Lake		House Lake
	126	Gladwin	6	Lake Four		Lake Four
	127	Gladwin	7	Lake Lancelot		Huntington Beach
	128	Gladwin	8	Lake Lancelot		Kingsway Beach
	129	Gladwin	9	Lake Lancer		Berkshire Beach
	130	Gladwin	10	Lake Lancer		Islanders Way
	131	Gladwin	11	Lake Lancer		Sugar Springs/Lake Lancer
	132	Gladwin	12	Lyle Drain/Tobacco River		Lost Haven Beach
	133	Gladwin	13	Pratt Lake		Pratt Lake
	134	Gladwin	14	Secord Lake		Secord Lake
	135	Gladwin	15	Secord Lake		Secord Lake - East
	136	Gladwin	16	Secord Lake		West River Drive Boat Launch
	137	Gladwin	17	Tittabawassee River		Estey Road Access

Appendix D.2. Inland Beaches Not Monitored 2018.

County #	Total Beach #	County	County Beach #	Waterbody	* DNR Owned	Beach Location
	138	Gladwin	18	Tittabawassee River		Gilman Springs Canoe Launch
	139	Gladwin	19	Tittabawassee River		Good News Camp
	140	Gladwin	20	Tittabawassee River		Pine Street Public Access
	141	Gladwin	21	Trout Lake		Trout Lake SFCG
	142	Gladwin	22	Wiggins Lake North	*	Wiggins Lake DNR Boat Launch
	143	Gladwin	23	Wiggins Lake South		Wiggins Lake - at Clendening Road
	144	Gladwin	24	Wixom Lake	*	Wixom Lake - West
23	145	Hillsdale	1	Baw Beese Lake		Sandy Beach
	146	Hillsdale	2	Bird lake		Bird Lake Beach
24	147	Ionia	1	Sessions Lake	*	Ionia State Recreation Area
25	148	Iosco	1	Chain Lake		Chain Lake Beach
	149	Iosco	2	Foote Pond		Footsite Park
	150	Iosco	3	Loon Lake		Loon Lake Park
	151	Iosco	4	Tawas River		Tawas River at First St.
26	152	Iron	1	Fortune (First) Lake	*	Bewabic State Park
27	153	Isabella	1	Chippewa River		Rolland Rd
	154	Isabella	2	Millpond		Millpond Park
28	155	Jackson	1	Clark Lake		Clark Lake County Park
	156	Jackson	2	Clear Lake		Clear Lake County Park
	157	Jackson	3	Gilletts Lake		Gilletts Lake County Park
	158	Jackson	4	Grass Lake		Grass Lake County Park
	159	Jackson	5	Lime Lake		Lime Lake County Park
	160	Jackson	6	Little Wolf Lake		Little Wolf Lake County Park
	161	Jackson	7	Pleasant Lake		Pleasant Lake County Park & Campground
	162	Jackson	8	Portage Lake		Portage Lake County Park
	163	Jackson	9	Round Lake		Round Lake County Park
	164	Jackson	10	Swains Lake		Swains Lake County Park
	165	Jackson	11	Vandercook Lake		Vandercook Lake County Park
	166	Jackson	12	Vineyard Lake		Vineyard Lake County Park
29	167	Kalamazoo	1	Timber Lake		Timber Lake Campground
30	168	Kent	1	Lincoln Lake		Lincoln Lake Baptist Camp
	169	Kent	2	Lincoln Lake		Lincoln Pines Resort
	170	Kent	3	Long Lake		Long Lake County Park
	171	Kent	4	Myers Lake		Myers Lake County Park
	172	Kent	5	Reeds Lake		Collins Park
	173	Kent	6	Scalley Lake		Scalley Lake Park
	174	Kent	7	Versluis Lake		Versluis Park
	175	Kent	8	Wabasis Lake		Wabasis Lake County Park
31	176	Lapeer	1	Lake Minnewanna	*	Metamora-Hadley Recreation Area
	177	Lapeer	2	Big Fish Lake	*	Ortonville State Recreation Area
32	178	Leelanau	1	Good Harbor Creek		Sleeping Bear Dunes - Good Harbor Creek Outlet
	179	Leelanau	2	Little Glen Lake		Sleeping Bear Dunes-Little Glen Lake
	180	Leelanau	3	North Bar Lake		Sleeping Bear Dunes-North Bar Lake
	181	Leelanau	4	Shalda Creek		Sleeping Bear Dunes- Shalda Creek
	182	Leelanau	5	Lake Leelanau		Leelanau Township Park Beach
	183	Leelanau	6	Lake Leelanau		Popp Road End
33	184	Lenawee	1	Lake Hudson	*	Lake Hudson State Recreation Area
	185	Lenawee	2	Wamplers Lake	*	Hayes State Park
34	186	Livingston	1	Bentley Lake		Camp Innisfree
	187	Livingston	2	Dibrova Lake		Green Valley Camp
	188	Livingston	3	Patterson Lake		North Star Reach Camp
	189	Livingston	4	Pickerel Lake		Providence Medical Center
35	190	Luce	1	Bass Lake	*	Bass Lake SFC
	191	Luce	2	Big Lake		Big Lake Campground
	192	Luce	3	Bodi Lake	*	Bodi Lake SFC
	193	Luce	4	Culhane Lake	*	Culhane Lake SFC
	194	Luce	5	HeadQuarters SFC	*	HeadQuarters SFC
	195	Luce	6	Holland Lake SFC	*	Holland Lake SFC
	196	Luce	7	Luce County Park		Luce County Park Campground
	197	Luce	8	Muskallonge Lake	*	Muskallonge Lake SFC
	198	Luce	9	Perch Lake SFC	*	Perch Lake SFC
	199	Luce	10	Pike Lake	*	Pike Lake SFC
	200	Luce	11	Pretty Lake	*	Pretty Lake SFC
36	201	Mackinac	1	Brevort Lake		Brevort Lake Campground Beach
	202	Mackinac	2	Garnet Lake	*	Garnet Lake SFC
	203	Mackinac	3	Little Brevort Lake North	*	Little Brevort Lake State Campground North
	204	Mackinac	4	Little Brevort Lake South	*	Little Brevort Lake State Campground South
	205	Mackinac	5	Milakokia Lake	*	Milakokia Lake SFC

Appendix D.2. Inland Beaches Not Monitored 2018.

County #	Total Beach #	County	County Beach #	Waterbody	* DNR Owned	Beach Location
	206	Mackinac	6	Millecoquins Lake	*	Millecoquins Lake SFC
	207	Mackinac	7	South Manistique Lake	*	South Manistique Lake SFC
37	208	Manistee	1	Bear Lake		Bear Lake-13 Mile Road Beach
	209	Manistee	2	Bear Lake		Bear Lake-7th Street Beach
	210	Manistee	3	Bear Lake		Bear Lake-Hopkins Park
	211	Manistee	4	Bear Lake		Bear Lake-Myers Road Beach
	212	Manistee	5	Bear Lake		Bear Lake-Pleasanton Twn. Park Beach
	213	Manistee	6	Lake		Bear Lake-South Shore Beach
38	214	Marquette	1	Lake Michigamme	*	Van Riper State Park
39	215	Menominee	1	Hermansville lake		Hermansville Beach
	216	Menominee	2	Shakey Lakes		Shakey Lakes Campground
40	217	Monroe	1	(man-made pond)		Totem Pole Campground Pond
	218	Monroe	2	Camp Lord Willing Pond		Camp Lord Willing
	219	Monroe	3	Covered Wagon Campground Pond		Covered Wagon Campground
	220	Monroe	4	Heath Beach Pond		Heath Beach
	221	Monroe	5	K.C. Campground Pond		K.C. Campground
	222	Monroe	6	Monroe KOA Campground Pond		Monroe K.O.A. Campground
	223	Monroe	7	Pirollis Campground Pond		Pirolli's Campground
	224	Monroe	8	The Vine campground pond		The Vine
	225	Monroe	9	Wilderness Retreat Campground Pond		Wilderness Retreat Campground
41	226	Montmorency	1	Clear Lake	*	Clear Lake Day Use
	227	Montmorency	2	Clear Lake	*	Clear Lake State Park
	228	Montmorency	3	Crooked Lake		Crooked Lake Beach
	229	Montmorency	4	East Twin Lake		East Twin Beach/Albert Township Park
	230	Montmorency	5	Ess Lake	*	Ess Lake State Campground
42	231	Muskegon	1	Bear Lake		Laketon Township Beach
	232	Muskegon	2	Goose Egg Lake		Kattulpa
43	233	Oakland	1	Adams Lake		Addison Oaks Co. Park
	234	Oakland	2	Avon Lake		Avon Lakes Beach #1
	235	Oakland	3	Avon Lake		Avon Lakes Beach #2
	236	Oakland	4	Bass Lake		Idlewild Subdivision
	237	Oakland	5	Bogie Lake		Bogie Lake Property Owners - Beryl Drive
	238	Oakland	6	Bogie Lake		Pinecrest Shores
	239	Oakland	7	Braemar Lake		Lake Braemar Estates - Tamryn Court
	240	Oakland	8	Brendel Lake		Lakewood Village
	241	Oakland	9	Brendel Lake		Pawlaks Campground
	242	Oakland	10	Carpenter Lake		Lakeview Recreation
	243	Oakland	11	Carpenter Lake		Silver Valley Subdivision
	244	Oakland	12	Cass Lake		Cass Lake Committee Association
	245	Oakland	13	Cass Lake		Cass Lake Woods
	246	Oakland	14	Cass Lake		Harbor Hills Homeowners Association
	247	Oakland	15	Cass Lake		Keego Harbor Trailer Park
	248	Oakland	16	Cass Lake		Sylvan-on-the-Lakes
	249	Oakland	17	Cass Lake		Willow Beach Subdivision
	250	Oakland	18	Cedar Island Lake		Cedar Crest Subdivision
	251	Oakland	19	Cedar Island Lake		Sunset Subdivision
	252	Oakland	20	Charnwood Lake		Charnwood
	253	Oakland	21	Clear Lake		Lakeland Improvement Association - Keith Street
	254	Oakland	22	Cranberry Lake		Cranberry Lake Estates
	255	Oakland	23	Cranberry Lake		Cranberry Lake Village
	256	Oakland	24	Cranberry Lake		Log Cabin Subdivision
	257	Oakland	25	Crescent Lake		Crescent Highlands
	258	Oakland	26	Crescent Lake		Crescent Lake Park
	259	Oakland	27	Crescent Lake		Crescent Lake Sub. Association
	260	Oakland	28	Davis Lake		Meagher Park/Woodland Manor
	261	Oakland	29	Deer Lake		Deer Lake Estates
	262	Oakland	30	Duck Lake		Seven Harbors - Flynn Drive (North)
	263	Oakland	31	Duck Lake		Seven Harbors Association - Hunters Drive South
	264	Oakland	32	Duck Lake		Seven Harbors Association - Jackson Boulevard (N)
	265	Oakland	33	Duck Lake		Seven Harbors Association- Harbor St. (Backlot A)
	266	Oakland	34	Ekelund Lake		Camp Gordanwood
	267	Oakland	35	Elizabeth Lake		Cass-Elizabeth Heights
	268	Oakland	36	Elizabeth Lake		ECHPOA
	269	Oakland	37	Elizabeth Lake		Elizabeth Lake Estates Improvement Assoc.
	270	Oakland	38	Elizabeth Lake		Elizabeth Lakeshore
	271	Oakland	39	Elizabeth Lake		Elizabeth Shores
	272	Oakland	40	Elizabeth Lake		Rangate Park
	273	Oakland	41	Elizabeth Lake		Terrace

Appendix D.2. Inland Beaches Not Monitored 2018.

County #	Total Beach #	County	County Beach #	Waterbody	* DNR Owned	Beach Location
	274	Oakland	42	Elizabeth Lake		Walters
	275	Oakland	43	Emerald Lake		Emerald Lake Homeowners Assoc. - Lyster Rd
	276	Oakland	44	Flanders Lake		Flanders Lake Beach Association
	277	Oakland	45	Fox Lake		Cloister-on-the-Lakes
	278	Oakland	46	Geneva Lake		Lakewood Farms - Crocus Street
	279	Oakland	47	Geneva Lake		Lakewood Farms - Sharon Street
	280	Oakland	48	Green Lake		Green Acres / Green Valley Park
	281	Oakland	49	Hammond Lake		Hammond Estates
	282	Oakland	50	Harvey Lake		Harvey Lake Estates
	283	Oakland	51	Harvey Lake		Harvey Lake Heights
	284	Oakland	52	Hawk Lake		Hawk Lake Apartments
	285	Oakland	53	Hawk Lake		Hill n Dale Park
	286	Oakland	54	Heather Lake		Heather Lake Estates
	287	Oakland	55	Horseshoe Lake		Detroit Sportsmens Congress
	288	Oakland	56	Huntoon Lake		Broadway Civic Association
	289	Oakland	57	Huntoon Lake		Burlingham Lake Park I
	290	Oakland	58	Huntoon Lake		Burlingham Lake Park II
	291	Oakland	59	Huntoon Lake		Huntoon Village
	292	Oakland	60	Indian Lake		Indian Lake Improvement Association
	293	Oakland	61	Indianwood Lake		Indianwood Improvement Association - Outlot A
	294	Oakland	62	Lakeville Lake		Doll's Dock (Skip's Landing)
	295	Oakland	63	Long Lake		Annex 1
	296	Oakland	64	Long Lake		Bunny Run C.C.
	297	Oakland	65	Long Lake		Russell Beach Subdivision Association
	298	Oakland	66	Long Lake		Twin Shores Subdivision
	299	Oakland	67	Loon Lake		Sandy Beach
	300	Oakland	68	Lotus Lake		Harris Park
	301	Oakland	69	Lotus Lake		Lotus Park
	302	Oakland	70	Lotus Lake		Mountain View
	303	Oakland	71	Lower Straits		Maple Point
	304	Oakland	72	Lower Straits Lake		Lower Straits Beach Club
	305	Oakland	73	Lower Straits Lake		Shores at Bay Point
	306	Oakland	74	Maceday Lake		Mountain View C.C. Subdivision
	307	Oakland	75	Maceday Lake		Whitfield-Maceday Association - North
	308	Oakland	76	Maceday Lake		Whitfield-Maceday Association - South
	309	Oakland	77	Marion Lake		Locklin Pines Association
	310	Oakland	78	Meadow Lake		Meadow Lake Association
	311	Oakland	79	Middle Straits Lake		Crystal Echo
	312	Oakland	80	Middle Straits Lake		Crystal Echo (the point)
	313	Oakland	81	Middle Straits Lake		Stony Beach
	314	Oakland	82	Middle Straits Lake		Tripps Sub. Park
	315	Oakland	83	Middle Straits Lake		Twin Beach Park
	316	Oakland	84	Middle Straits Lake		West Acres
	317	Oakland	85	Mill Pond		Davisburg Village Beach (Hart Community Center)
	318	Oakland	86	Morgan Lake		Lake Angelus Lakeview Estates
	319	Oakland	87	Mud Lake		Rose Hill Center
	320	Oakland	88	Narrin Lake		Camp Narrin
	321	Oakland	89	Neva Lake		Lakewood Village Subdivision
	322	Oakland	90	Oakland Lake		Bird Island Subdivision
	323	Oakland	91	Oakland Lake		Lake Oakland Heights
	324	Oakland	92	Oakland Lake		Lake Oakland Shores
	325	Oakland	93	Orchard Lake		St. Mary's Park
	326	Oakland	94	Orion Lake		Lake Orion Country Club Association
	327	Oakland	95	Orion Lake		Lake Orion Heights
	328	Oakland	96	Orion Lake		Sunset Club
	329	Oakland	97	Oxford Lake		Oxford Lakes Association
	330	Oakland	98	Perry Lake		Perry Lake Protective Association
	331	Oakland	99	Pine Lake		Birch Harbor
	332	Oakland	100	Pine Lake		North Pine Center
	333	Oakland	101	Pine Lake		Pine Lake Beach Association
	334	Oakland	102	Pine Lake		Pine Lake Country Club
	335	Oakland	103	Pine Lake		Pine Lake Manor
	336	Oakland	104	Pleasant Lake		Pleasant Lake Highlands
	337	Oakland	105	Pleasant Lake		Pleasant Lake Manor
	338	Oakland	106	Pleasant Lake		Pleasant Lake Woods
	339	Oakland	107	Round Lake		Family Park
	340	Oakland	108	Round Lake		Round Lake Property Owners
	341	Oakland	109	Rowe Lake		Jacksina Subdivision

Appendix D.2. Inland Beaches Not Monitored 2018.

County #	Total Beach #	County	County Beach #	Waterbody	* DNR Owned	Beach Location
	342	Oakland	110	Sandshores		Emerald Lake Homeowners Assoc. - Little Creek Road
	343	Oakland	111	Schoolhouse Lake		Indian Manor Subdivision
	344	Oakland	112	Sears Lake		North Beach
	345	Oakland	113	Sears Lake		South Beach
	346	Oakland	114	Sherwood Lake		Ledgewood
	347	Oakland	115	Sherwood Lake		Ravinewood East
	348	Oakland	116	Sherwood Lake		Ravinewood West
	349	Oakland	117	Sherwood Lake		Sherwood Boat Ramp
	350	Oakland	118	Sherwood Lake		Sherwood Property Owners
	351	Oakland	119	Silver Lake		Silver Hill Road
	352	Oakland	120	Softwater Lake		Softwater Woods Subdivision
	353	Oakland	121	Spencer Lake		John Arbor Lake Association
	354	Oakland	122	Square Lake		Pleasant View Subdivision
	355	Oakland	123	Square Lake		Pleasant View Subdivision - Kempster St
	356	Oakland	124	Square Lake		Square Lake Hills Apt/Bloomfield Square Lake Condo
	357	Oakland	125	Squaw Lake		Fernlock Association
	358	Oakland	126	Sugden Lake		Oakridge Subdivision
	359	Oakland	127	Sylvan Lake		Cunningham Park
	360	Oakland	128	Sylvan Lake		Lakeview
	361	Oakland	129	Sylvan Lake		Pioneer Highlands
	362	Oakland	130	Sylvan Lake		Rustic Lane Subdivision
	363	Oakland	131	Sylvan Lake		Sylvan Shores Improvement Association
	364	Oakland	132	Tamarack Lake		Tamarack Subdivision
	365	Oakland	133	Tan Lake		Mary K. Subdivision
	366	Oakland	134	Tipsico Lake		Rosmar
	367	Oakland	135	Tull Lake		Twin Lakes Association
	368	Oakland	136	Union Lake		Alpha Beach
	369	Oakland	137	Union Lake		Burley & Barnsbury Streets
	370	Oakland	138	Union Lake		Union Lake Beach Club
	371	Oakland	139	Union Lake		Union Lake Heights Subdivision #2
	372	Oakland	140	Upper Long Lake		Long Lake Property Owners
	373	Oakland	141	Upper Long Lake		Long Lake Property Owners - A
	374	Oakland	142	Upper Pettibone Lake		Oak Heights Improvement Association, 3015 Lakeview
	375	Oakland	143	Upper Silver Lake		Oakwood Manor
	376	Oakland	144	Upper Silver Lake		Silver Lake Association
	377	Oakland	145	Upper Straits Lake		Banker's Subdivision
	378	Oakland	146	Upper Straits Lake		Bayside Beach Association
	379	Oakland	147	Upper Straits Lake		Outlet A
	380	Oakland	148	Upper Straits Lake		Shady Beach
	381	Oakland	149	Van Norman Lake		Waterford Hill
	382	Oakland	150	Voorheis Lake		Keatington Subdivision - Eaton Gate - off Baldwin
	383	Oakland	151	Voorheis Lake		Keatington Subdivision - Joslyn Ct.
	384	Oakland	152	Walker Lake		Emerald Lake Homeowners Association - Sandshore
	385	Oakland	153	Walled Lake		Pratt Subdivision
	386	Oakland	154	Walnut Lake		Bloomfield Square Beach Association
	387	Oakland	155	Walnut Lake		Finnish American Club of Detroit
	388	Oakland	156	Walnut Lake		Lone Pine Association
	389	Oakland	157	Walnut Lake		North Cove
	390	Oakland	158	Walnut Lake		Shenandoah Farms Association
	391	Oakland	159	Walnut Lake		Walnut Lake Estates
	392	Oakland	160	Walnut Lake		Walnut Lake Hills Corporation
	393	Oakland	161	Walnut Lake		Walnut Lake Park
	394	Oakland	162	Walnut Lake		Walnut Lake Property Owners Sub #1
	395	Oakland	163	Walters Lake		Sunny Beach #1 - Eston Road
	396	Oakland	164	Watkins Lake		Heitch Street
	397	Oakland	165	Watkins Lake		Lakeland Association #1
	398	Oakland	166	Watkins Lake		Lakeland Association #2
	399	Oakland	167	Watkins Lake		Lanarh Street
	400	Oakland	168	Watkins Lake		Whitney Street
	401	Oakland	169	Waumegah Lake		Lake Waumegah Homeowners Association
	402	Oakland	170	West Bloomfield		West Bloomfield Committee Association
	403	Oakland	171	Whipple Lake		Whipple Shores Subdivision
	404	Oakland	172	White Lake		Rolling Acres
	405	Oakland	173	White Lake		Seven Harbors Association - Lakeview (South)
	406	Oakland	174	White Lake		Seven Harbors Association - Woodland (North)
	407	Oakland	175	White Lake		Stanley Beach
	408	Oakland	176	Wildwood Lake	*	Holly Recreation Area - Wildwood Beach
	409	Oakland	177	Williams Lake		Bayside/Island Beach

Appendix D.2. Inland Beaches Not Monitored 2018.

County #	Total Beach #	County	County Beach #	Waterbody	* DNR Owned	Beach Location
	410	Oakland	178	Williams Lake		Hartford Beach
	411	Oakland	179	Williams Lake		Ideal Country Club Homeowners Association
	412	Oakland	180	Williams Lake		Lake Williams Heights
	413	Oakland	181	Williams Lake		Overridge
	414	Oakland	182	Williams Lake		Paulsen
	415	Oakland	183	Wing Lake		Westwood Manor
	416	Oakland	184	Wing Lake		Wing Lake Farms Association
	417	Oakland	185	Wing Lake		Wing Lake Property Owners Association
	418	Oakland	186	Wolverine Lake		Nantucket Village
	419	Oakland	187	Wolverine Lake		Spring Lake Heights Annex I
	420	Oakland	188	Woodhull Lake		Major
	421	Oakland	189	Woodhull Lake		Oakland Ridge Subdivision
	422	Oakland	190	Woodhull Lake		Woodhull Subdivision
	423	Oakland	191	Woodpecker Lake		Sagamore Property Owners
	424	Oakland	192	Woodpecker Lake		Shenandoah Golf and Country Club Estates
	425	Oakland	193	Woodruff Lake		Highland Heights Sub
	426	Oakland	194	Woodruff Lake		Highland Hills Homeowners Association
44	427	Ogemaw	1	Grousehaven Lake	*	Rifle River Recreation Area Day Use Area
	428	Ogemaw	2	Lake George		Lake George Campground
45	429	Osceola	1	Center Lake		Center Lake Bible Camp
	430	Osceola	2	Center Lake		Center Lake Park
	431	Osceola	3	Center Lake		Kettunen Center
	432	Osceola	4	Diamond Lake		Diamond Lake
	433	Osceola	5	Diamond Lake	*	DNR Access Diamond Lake
	434	Osceola	6	Hicks Lake	*	DNR Access Hicks Lake
	435	Osceola	7	McCoy Lake	*	DNR Access McCoy Lake
	436	Osceola	8	Muskegon River		City of Evart Campground
	437	Osceola	9	Muskegon River		Hersey Road Access
	438	Osceola	10	Rose Lake		Rose Lake Youth Camp
	439	Osceola	11	Sunrise Lake		Sunrise Lake Park
	440	Osceola	12	Todd Lake	*	DNR Access Todd Lake
	441	Osceola	13	Wells Lake	*	DNR Access Wells Lake
46	442	Oscoda	1	Mio Pond		Mio Pond Campground
47	443	Otsego	1	Bear Lake	*	Bear Lake State Forest Campground
	444	Otsego	2	Dixon Lake		Dixon Lake Access
	445	Otsego	3	Otsego Lake	*	Otsego Lake State Park North
	446	Otsego	4	Pickeral Lake	*	Pickeral Lake State Forest Campground
48	447	Ottawa	1	Crockery Lake		Grose Park
	448	Ottawa	2	Georgetown Lake		Georgetown Community Park
	449	Ottawa	3	Lake Macatawa		Dunton Park
	450	Ottawa	4	Lake Macatawa		Fallen Leaf Park
	451	Ottawa	5	Lake Macatawa	*	Holland State Park
	452	Ottawa	6	Maplewood Lake		Maplewood Lake Park
	453	Ottawa	7	Pottawattomie Bayou		Pottawattomie Park
	454	Ottawa	8	Spring Lake		Lakeside Beach
49	455	Presque Isle	1	Black Lake	*	Onaway State Park
	456	Presque Isle	2	Grand Lake		Grand Lake Northwest
	457	Presque Isle	3	Grand Lake		Grand Lake Public Access
	458	Presque Isle	4	Lake May		Lake May Public Access
	459	Presque Isle	5	Ocquoec River		Millersburg Park
	460	Presque Isle	6	Ocquoec River		Ocquoec Falls Park
	461	Presque Isle	7	Shoepac Lake		Shoepac Lake Camp Ground
	462	Presque Isle	8	Tomahawk Lake		Tomahawk Lake Camp Ground
50	463	Roscommon	1	Backus Pond		Backus Township. Park
	464	Roscommon	2	Bambi Lake/Sinkhole Lake		Bambi Lake Camp
	465	Roscommon	3	Higgins Lake		Beaver Creek Road End
	466	Roscommon	4	Higgins Lake	*	DNR Public Fishing Site
	467	Roscommon	5	Higgins Lake		Gerrish Township Park
	468	Roscommon	6	Higgins Lake		Higgins Lake Public Fishing Site
	469	Roscommon	7	Higgins Lake		Kelly Beach
	470	Roscommon	8	Higgins Lake		Phoenix Park
	471	Roscommon	9	Higgins Lake		Sam-O-Set Road End
	472	Roscommon	10	Houghton Lake	*	Houghton Lake DNR Boat Launch and Park
	473	Roscommon	11	Houghton Lake		Houghton Lake Public Fishing Site
	474	Roscommon	12	Houghton Lake	*	Houghton Lake State Forest Campground
	475	Roscommon	13	Houghton Lake	*	Old 27 DNR Access
	476	Roscommon	14	Owens Lake		Camp Co-Be-Ac
51	477	Saginaw	1	Haithco Lake	*	Haithco Recreation Area

Appendix D.2. Inland Beaches Not Monitored 2018.

County #	Total Beach #	County	County Beach #	Waterbody	* DNR Owned	Beach Location
	478	Saginaw	2	Lake of Dreams		Lake of Dreams Campground
52	479	Sanilac	1	Forester Creek		Forester Creek
53	480	Schoolcraft	1	Clear Lake		Clear Lake Camp
	481	Schoolcraft	2	Clear Lake		Cowell Lake Campground
	482	Schoolcraft	3	Gulliver Lake		Gulliver Lake
	483	Schoolcraft	4	Swan Lake		Swan lake
	484	Schoolcraft	5	Triangle Lake Site #1		Triangle Lake Site #1
	485	Schoolcraft	6	Triangle Lake Site #2		Triangle Lake Site #2
54	486	St. Clair	1	Emmett K.O.A. Pond		Emmett K.O.A.
	487	St. Clair	2	Fort Trodd Lake		Fort Trodd Campground North
	488	St. Clair	3	Fort Trodd Lake		Fort Trodd South
	489	St. Clair	4	Kimball Pond		Kimball Township Pond
	490	St. Clair	5	Ruby Campground Pond		Ruby Campground
55	491	St. Joseph	1	Cade Lake		Cade Lake Beach
	492	St. Joseph	2	Palmer Lake		Palmer Lake Beach
	493	St. Joseph	3	Sand Lake		Nottawa Park
	494	St. Joseph	4	Tamarack Lake		Camp Fort Hill
56	495	Tuscola	1	Murphy Lake		Murphy Lake
57	496	Wayne	1	Newburgh Lake		Newburgh Lake

Appendix E.1. Great Lakes Beaches Monitored 2018.

County #	Total Beach #	County	County Beach #	Waterbody	* DNR Owned	Beach Location
1	1	Alcona	1	Lake Huron		Greenbush Township
	2	Alcona	2	Lake Huron	*	Harrisville State Park
2	3	Allegan	1	Lake Michigan		Casco Township Park
	4	Allegan	2	Lake Michigan		Douglas Beach
	5	Allegan	3	Lake Michigan		Laketown Township Park
	6	Allegan	4	Lake Michigan		Oval Beach
	7	Allegan	5	Lake Michigan		Pier Cove Beach
	8	Allegan	6	Lake Michigan	*	Saugatuck Dunes State Park Shoreline Beach
	9	Allegan	7	Lake Michigan		West Side County Park Beach
3	10	Alpena	1	Lake Huron		Blair Street Park
	11	Alpena	2	Lake Huron		Starlite Beach
4	12	Antrim	1	Lake Michigan		Antrim County Day Park South
	13	Antrim	2	Lake Michigan		Banks Township. Park
	14	Antrim	3	Lake Michigan		Barnes Park
	15	Antrim	4	Lake Michigan		Elk Rapids
	16	Antrim	5	Lake Michigan		Veterans Memorial Park
5	17	Arenac	1	Saginaw Bay		Whites Beach
	18	Arenac	2	Saginaw Bay-Lake Huron		Arenac County Park
	19	Arenac	3	Saginaw Bay-Lake Huron		Bessinger Road Beach
	20	Arenac	4	Saginaw Bay-Lake Huron		Cemetery Beach
	21	Arenac	5	Saginaw Bay-Lake Huron		Dyer Road Beach
	22	Arenac	6	Saginaw Bay-Lake Huron		Foster Road Beach
	23	Arenac	7	Saginaw Bay-Lake Huron		Hammel Beach Road Access
	24	Arenac	8	Saginaw Bay-Lake Huron	*	Singing Bridge Beach
	25	Arenac	9	Saginaw Bay-Lake Huron		Twining Road Beach
6	26	Baraga	1	Keweenaw Bay / Lake Superior		L'Anse Waterfront Park
	27	Baraga	2	Keweenaw Bay / Lake Superior		Second Sands Beach
7	28	Bay	1	Saginaw Bay-Lake Huron	*	Bay City State Recreation Area
	29	Bay	2	Saginaw Bay-Lake Huron		Brissette Beach Township Park
	30	Bay	3	Saginaw Bay-Lake Huron		Pinconning Park
	31	Bay	4	Saginaw Bay-Lake Huron		South Linwood Beach Township Park
	32	Bay	5	Saginaw Bay-Lake Huron		Wenona Beach
8	33	Benzie	1	Lake Michigan		Frankfort: Anchor Road Beach
9	34	Berrien	1	Lake Michigan		Cherry Beach
	35	Berrien	2	Lake Michigan		Grand Beach
	36	Berrien	3	Lake Michigan		Hagar Township Park
	37	Berrien	4	Lake Michigan		Jean Klock Park
	38	Berrien	5	Lake Michigan		Lincoln Township Park
	39	Berrien	6	Lake Michigan		Lions Park
	40	Berrien	7	Lake Michigan		Michiana Village
	41	Berrien	8	Lake Michigan		New Buffalo City
	42	Berrien	9	Lake Michigan		Rocky Gap
	43	Berrien	10	Lake Michigan		Silver Beach
	44	Berrien	11	Lake Michigan		Tiscornia Park
	45	Berrien	12	Lake Michigan		Union Pier - Townline Road
	46	Berrien	13	Lake Michigan	*	Warren Dunes Beach
	47	Berrien	14	Lake Michigan		Weko Beach
10	48	Charlevoix	1	Lake Charlevoix		Depot Beach
	49	Charlevoix	2	Lake Charlevoix		East Jordan Tourist Park
	50	Charlevoix	3	Lake Charlevoix		Elm Point Beach
	51	Charlevoix	4	Lake Charlevoix		Ferry Beach
	52	Charlevoix	5	Lake Charlevoix		Glenwood Beach
	53	Charlevoix	6	Lake Charlevoix		Hayes Township Park
	54	Charlevoix	7	Lake Charlevoix		Washington Street Beach
	55	Charlevoix	8	Lake Charlevoix		Whiting Park Beach
	56	Charlevoix	9	Lake Charlevoix	*	Young State Park Beach
	57	Charlevoix	10	Lake Michigan	*	Fisherman's Island State Park
	58	Charlevoix	11	Lake Michigan		Lake Michigan Beach
	59	Charlevoix	12	Lake Michigan		Michigan Avenue
	60	Charlevoix	13	Lake Michigan		Norwood Township Park
11	61	Cheboygan	1	Lake Huron		Cheboygan City Park
12	62	Chippewa	1	Lake Superior	*	Brimley State Park
	63	Chippewa	2	Lake Superior		Sherman Park
	64	Chippewa	3	St. Mary's River		Four Mile Beach
	65	Chippewa	4	St. Mary's River		Sugar Island Township Park
13	66	Delta	1	Lake Michigan		Escanaba Bathing Beach
	67	Delta	2	Lake Michigan		Gladstone Bathing Beach/Van Cleve Park
14	68	Emmet	1	Lake Michigan		Cross Village Beach
	69	Emmet	2	Lake Michigan		Mackinaw City Beach #1

Appendix E.1. Great Lakes Beaches Monitored 2018.

County #	Total Beach #	County	County Beach #	Waterbody	* DNR Owned	Beach Location
	70	Emmet	3	Lake Michigan		Mackinaw City Beach #2
	71	Emmet	4	Lake Michigan		Middle Village Park
	72	Emmet	5	Lake Michigan	*	Petoskey State Park
	73	Emmet	6	Lake Michigan		Readmond Township Beach
	74	Emmet	7	Lake Michigan		Sturgeon Bay Township Beach
	75	Emmet	8	Lake Michigan	*	Wilderness State Park
	76	Emmet	9	Lake Michigan		Zoll Street Beach
	77	Emmet	10	Lake Michigan		Zorn Park - Harbor Springs
15	78	Gogebic	1	Lake Superior		Little Girls Point Park
16	79	Grand Traverse	1	Grand Travere Bay (West Bay)		Volleyball Court Beach
	80	Grand Traverse	2	Grand Traverse Bay-East		East Bay Park (Milliken Park)
	81	Grand Traverse	3	Grand Traverse Bay-East		Sayler Park
	82	Grand Traverse	4	Grand Traverse Bay-East	*	Traverse City State Park
	83	Grand Traverse	5	Grand Traverse Bay-West		Bryant Park Beach
	84	Grand Traverse	6	Grand Traverse Bay-West		Clinch Park
	85	Grand Traverse	7	Grand Traverse Bay-West		Senior Center
	86	Grand Traverse	8	Grand Traverse Bay-West		Sunset Park
	87	Grand Traverse	9	Grand Traverse Bay-West		West End Beach
17	88	Houghton	1	Lake Superior		Agate Beach
	89	Houghton	2	Lake Superior		Calumet Waterworks Beach
	90	Houghton	3	Lake Superior	*	McLain State Park Beach
	91	Houghton	4	Lake Superior		Private Shoreline Beach-Little Traverse Bay
	92	Houghton	5	Lake Superior		White City
	93	Houghton	6	Pike Bay at Portage Canal / Lake Superior		Chassell Beach
	94	Houghton	7	Portage Canal / Lake Superior		Hancock City Beach
	95	Houghton	8	Portage Canal / Lake Superior		Houghton City Beach
	96	Houghton	9	Portage Canal / Lake Superior		Sandy Bottom Beach/ Dollar Bay
	97	Houghton	10	Torch Lake / Portage Canal / Lake Superior		Lake Linden Campground Beach
18	98	Huron	1	Lake Huron		Bird Creek County Park
	99	Huron	2	Lake Huron		Caseville County Park
	100	Huron	3	Lake Huron		Harbor Beach City Park
	101	Huron	4	Lake Huron		Jenks County Park
	102	Huron	5	Lake Huron		McGraw County Park
	103	Huron	6	Lake Huron		Oak Beach County Park
	104	Huron	7	Lake Huron		Philp County Park
	105	Huron	8	Lake Huron	*	Port Crescent State Park - Camping Area
	106	Huron	9	Lake Huron	*	Port Crescent State Park - Day Use
	107	Huron	10	Lake Huron	*	Sleeper State Park
	108	Huron	11	Lake Huron		Thompson Park
	109	Huron	12	Lake Huron		Veterans Park
	110	Huron	13	Lake Huron		Wagener County Park
19	111	Iosco	1	Lake Huron		Alabaster Township - Alabaster Rd. end
	112	Iosco	2	Lake Huron		Alabaster Township Douglas Drive Beach Use Area
	113	Iosco	3	Lake Huron		Au Sable Township Park
	114	Iosco	4	Lake Huron		MDOT Roadside Park - Three Mile Park
	115	Iosco	5	Lake Huron		Oscoda Township Beach
	116	Iosco	6	Lake Huron	*	Tawas Point State Park Campground
	117	Iosco	7	Lake Huron	*	Tawas Point State Park-Day Use area
	118	Iosco	8	Lake Huron (Tawas Bay)		County Road End off Tawas Beach Rd.
	119	Iosco	9	Lake Huron (Tawas Bay)		Gateway Park Beach
	120	Iosco	10	Tawas Bay		East Tawas City Park
	121	Iosco	11	Tawas Bay		Tawas City Park
20	122	Keweenaw	1	Copper Harbor		Copper Harbor Marina
	123	Keweenaw	2	Copper Harbor		Lighthouse Overlook
	124	Keweenaw	3	Lake Superior		Eagle Harbor Beach
	125	Keweenaw	4	Lake Superior		Eagle River Beach
	126	Keweenaw	5	Lake Superior	*	Fort Wilkins State Park
	127	Keweenaw	6	Lake Superior		Great Sands Bay Beach
	128	Keweenaw	7	Lake Superior		Hunter's Point
	129	Keweenaw	8	Lake Superior		Public Shoreline Beach-Big Traverse Bay
	130	Keweenaw	9	Lake Superior at Bete de Gris Bay		Bete de Gris Beach
21	131	Leelanau	1	Grand Traverse Bay (West Bay)		Suttons Bay - South Shore Park
	132	Leelanau	2	Grand Traverse Bay-West		Elmwood/Greilikville Park & Beach
	133	Leelanau	3	Grand Traverse Bay-West		Northport Bay Marina
	134	Leelanau	4	Grand Traverse Bay-West		Suttons Bay Marina Park & Beach
	135	Leelanau	5	Lake Michigan		Empire Municipal Beach
22	136	Mackinac	1	Lake Huron		Kiwanis Beach
	137	Mackinac	2	Lake Michigan		US 2 Sand Dunes Beach (East of Brevort)

Appendix E.1. Great Lakes Beaches Monitored 2018.

County #	Total Beach #	County	County Beach #	Waterbody	* DNR Owned	Beach Location
23	138	Macomb	1	Lake St. Clair		H.C.M.A. - Lake St. Clair Metropark Beach
	139	Macomb	2	Lake St. Clair		New Baltimore Park Beach
	140	Macomb	3	Lake St. Clair		St. Clair Shores Memorial Park Beach
24	141	Manistee	1	Lake Michigan		Arcadia Park
	142	Manistee	2	Lake Michigan		Bar Lake Outlet
	143	Manistee	3	Lake Michigan		Fifth Avenue Beach
	144	Manistee	4	Lake Michigan		First Street Beach
	145	Manistee	5	Lake Michigan		Magoon Creek
	146	Manistee	6	Lake Michigan		Onekama Township Beach
	147	Manistee	7	Lake Michigan		Pierport Township Beach
	148	Manistee	8	Lake Michigan		Sundling Park
25	149	Marquette	1	Lake Superior		Marquette South Beach
	150	Marquette	2	Lake Superior		McCarty's Cove
	151	Marquette	3	Lake Superior		North Beach
	152	Marquette	4	Lake Superior		North of Picnic Rocks
	153	Marquette	5	Lake Superior		Shiras Park Beach
26	154	Mason	1	Lake Michigan		Bass Lake Outlet Beach
	155	Mason	2	Lake Michigan		Buttersville Park Beach
	156	Mason	3	Lake Michigan	*	Ludington State Park Campground Beach
	157	Mason	4	Lake Michigan		South Pier Beach
	158	Mason	5	Lake Michigan		South Summit Beach - Sunset Boulevard Beach
	159	Mason	6	Lake Michigan	*	Stearns Park Beach
	160	Mason	7	Lake Michigan		Summit Township Beach
27	161	Menominee	1	Lake Michigan		Henes Park
	162	Menominee	2	Lake Michigan		Memorial Beach
28	163	Monroe	1	Lake Erie		Luna Pier City Beach
	164	Monroe	2	Lake Erie	*	Sterling State Park
29	165	Muskegon	1	Lake Michigan		Bronson/Kruse Park
	166	Muskegon	2	Lake Michigan	*	Duck Lake Channel Beach
	167	Muskegon	3	Lake Michigan		Lake Harbor Park
	168	Muskegon	4	Lake Michigan		Lighthouse/Sylvan Beach
	169	Muskegon	5	Lake Michigan		Medbury Park Beach
	170	Muskegon	6	Lake Michigan		Meinert County Park
	171	Muskegon	7	Lake Michigan	*	Muskegon State Park
	172	Muskegon	8	Lake Michigan	*	Muskegon State Park-North Campground Beach
	173	Muskegon	9	Lake Michigan		Old Channel Beach
	174	Muskegon	10	Lake Michigan	*	P.J. Hoffmaster State Park - Campground
	175	Muskegon	11	Lake Michigan	*	P.J. Hoffmaster State Park - Public Beach Area
	176	Muskegon	12	Lake Michigan		Pere Marquette Park
	177	Muskegon	13	Lake Michigan		Pioneer County Park
30	178	Oceana	1	Lake Michigan		Claybanks Township Park
	179	Oceana	2	Lake Michigan	*	Lighthouse Beach at Silver Lake State Park
	180	Oceana	3	Lake Michigan	*	Mears State Park
	181	Oceana	4	Lake Michigan		Whiskey Creek
	182	Oceana	5	Stony Lake and Lake Michigan		Stony Lake Channel
31	183	Ontonagon	1	Lake Superior		Ontonagon Township Park and Campground
	184	Ontonagon	2	Lake Superior	*	Porcupine Mountains State Park- Union Bay
	185	Ontonagon	3	Lake Superior		Public Shoreline Beach-Misery Bay
32	186	Ottawa	1	Lake Michigan	*	Grand Haven State Park
	187	Ottawa	2	Lake Michigan	*	Holland State Park
	188	Ottawa	3	Lake Michigan		North Beach Park
	189	Ottawa	4	Lake Michigan		Tunnel Park
	190	Ottawa	5	Lake Michigan		Windsnest Park
33	191	Sanilac	1	Lake Huron		Forester County Park
	192	Sanilac	2	Lake Huron		Forestville Beach
	193	Sanilac	3	Lake Huron		Lexington Beach
	194	Sanilac	4	Lake Huron		Lexington County Park
	195	Sanilac	5	Lake Huron		Port Sanilac Park
34	196	Schoolcraft	1	Lake Michigan		Public Shoreline Beach-Thompson
	197	Schoolcraft	2	Lake Michigan		Rogers Park-MDOT
35	198	St. Clair	1	Lake Huron		Conger-Lighthouse Beach
	199	St. Clair	2	Lake Huron		Fort Gratiot County Park
	200	St. Clair	3	Lake Huron		Holland Road Beach
	201	St. Clair	4	Lake Huron		Keewadhin Road Beach
	202	St. Clair	5	Lake Huron	*	Lakeport State Campground
	203	St. Clair	6	Lake Huron		Lakeside Beach
	204	St. Clair	7	St. Clair River		Chrysler Park Beach

Appendix E.1. Great Lakes Beaches Monitored 2018.

County #	Total Beach #	County	County Beach #	Waterbody	* DNR Owned	Beach Location
	205	St. Clair	8	St. Clair River		Marine City Beach
36	206	Van Buren	1	Lake Michigan		Covert Township Park Beach
	207	Van Buren	2	Lake Michigan		South Haven North Beach
	208	Van Buren	3	Lake Michigan		South Haven South Beach
	209	Van Buren	4	Lake Michigan	*	Van Buren State Park Beach
37	210	Wayne	1	Lake St. Clair		Pier Park

Appendix E.2. Great Lakes Beaches Not Monitored 2018.

County #	Total Beach #	County	County Beach #	Waterbody	* DNR Owned	Beach Location
1	1	Alcona	1	Lake Huron		Black River Public Access
	2	Alcona	2	Lake Huron		Harrisville Public Access
	3	Alcona	3	Lake Huron	*	Negwegon State Park
	4	Alcona	4	Lake Huron	*	Point Rd. Beach
	5	Alcona	5	Lake Huron		Public Shoreline Beach-Huron National Forest North
	6	Alcona	6	Lake Huron		Public Shoreline Beach-Huron National Forest South
	7	Alcona	7	Lake Huron		Trask Lake Road Beach
2	8	Alger	1	Lake Superior		Au Train Beach
	9	Alger	2	Lake Superior	*	Bay Furnace Recreation Area Beach
	10	Alger	3	Lake Superior		Christmas Beach
	11	Alger	4	Lake Superior		Grand Marais Harbor Beach
	12	Alger	5	Lake Superior		Grand Marais Township Beach
	13	Alger	6	Lake Superior		Hurricane Campground Beach
	14	Alger	7	Lake Superior		Miners Beach
	15	Alger	8	Lake Superior		Munising Beach
	16	Alger	9	Lake Superior		Public Shoreline Beach-Au Train Bay
	17	Alger	10	Lake Superior		Public Shoreline Beach-Au Train to Five Mile Pts
	18	Alger	11	Lake Superior		Public Shoreline Beach-East County Border area
	19	Alger	12	Lake Superior		Public Shoreline Beach-Grand Sable Dunes
	20	Alger	13	Lake Superior		Public Shoreline-Grand Portal Point
	21	Alger	14	Lake Superior		Public Shoreline-Sand Point to Miners Castle Point
	22	Alger	15	Lake Superior		Rathfoot Park Beach
	23	Alger	16	Lake Superior		Roadside Park
	24	Alger	17	Lake Superior		Sand Point
	25	Alger	18	Lake Superior		Sullivans Landing
	26	Alger	19	Lake Superior		Twelve-Mile Beach
3	27	Allegan	1	Lake Michigan		Castle Park
4	28	Alpena	1	Lake Huron		3
	29	Alpena	2	Lake Huron		Bay View Park
	30	Alpena	3	Lake Huron		Elcajon Bay
	31	Alpena	4	Lake Huron		Issineke Hardwood Point
	32	Alpena	5	Lake Huron		Michekewis Beach
	33	Alpena	6	Lake Huron	*	Negwegon State Park-Ossineke South Point
	34	Alpena	7	Lake Huron		Ossineke Campground
	35	Alpena	8	Lake Huron	*	Ossineke State Park
	36	Alpena	9	Lake Huron		Partridge Point
	37	Alpena	10	Lake Huron		Rock Port Beach
	38	Alpena	11	Lake Huron		Thompson Park
	39	Alpena	12	Lake Huron		Whitefish Bay
5	40	Antrim	1	Grand Traverse Bay-East		Petobego Pond Area
	41	Antrim	2	Lake Michigan		Antrim County Day Park North
	42	Antrim	3	Lake Michigan		Antrim Creek Natural Area
	43	Antrim	4	Lake Michigan		Echo Township Park
	44	Antrim	5	Lake Michigan		Elk Rapids Park
	45	Antrim	6	Lake Michigan		Erickson Road
	46	Antrim	7	Lake Michigan		Lore Road End Beach
	47	Antrim	8	Lake Michigan		Michigan Trail
	48	Antrim	9	Lake Michigan		Nature Preserve
	49	Antrim	10	Lake Michigan		North Bay Shore (Conservancy)
	50	Antrim	11	Lake Michigan		O'Dell Road
	51	Antrim	12	Lake Michigan		Road Crossing near Winters Road
6	52	Arenac	1	Inner Saginaw Bay		Augres Township Park Beach
	53	Arenac	2	Inner Saginaw Bay		Booth Road Beach
	54	Arenac	3	Inner Saginaw Bay		City of Au Gres Public Access
	55	Arenac	4	Inner Saginaw Bay		Gordon Road Beach
	56	Arenac	5	Inner Saginaw Bay		Terrace Road
	57	Arenac	6	Saginaw Bay		Dime Drain-Harmon Cty Hghts Beach
	58	Arenac	7	Saginaw Bay		Whites Beach- Isle Rd Ramp
	59	Arenac	8	Saginaw Bay		Whites Beach-Circle Rd Ramp
	60	Arenac	9	Saginaw Bay		Whites Beach-Point Rd-Culvert
	61	Arenac	10	Saginaw Bay		Whites Beach-Wenonah Rd-West Ramp
	62	Arenac	11	Saginaw Bay Inner-Lake Huron	*	Au Sable State Forest- Greens Point
	63	Arenac	12	Saginaw Bay-Lake Huron		16th Street Beach
	64	Arenac	13	Saginaw Bay-Lake Huron		28th Street Beach
	65	Arenac	14	Saginaw Bay-Lake Huron		Pump Station
7	66	Baraga	1	Huron Bay / Lake Superior		Arvon Township Park
	67	Baraga	2	Keweenaw Bay / Lake Superior	*	Baraga State Park
	68	Baraga	3	Keweenaw Bay / Lake Superior		First Sand Beach
	69	Baraga	4	Keweenaw Bay / Lake Superior		L'Anse Township Park
	70	Baraga	5	Lake Superior		Keweenaw Bay Village Public Roadside Park
	71	Baraga	6	Lake Superior		Mouth of the Huron River
	72	Baraga	7	Lake Superior		Public Shoreline Beach-Cooper Country Huron Bay
	73	Baraga	8	Lake Superior		Public Shoreline Beach-Northwest Abbaye Peninsula
	74	Baraga	9	Lake Superior		Public Shoreline Beach-Point Abbaye
	75	Baraga	10	Lake Superior		Public Shoreline Beach-Sand Point
	76	Baraga	11	Lake Superior		Public Shoreline Beach-SE End of Huron Bay
8	77	Bay	1	Saginaw Bay		Nayanquing Point Wildlife Area
	78	Bay	2	Saginaw Bay		North Linwood Beach

Appendix E.2. Great Lakes Beaches Not Monitored 2018.

County #	Total Beach #	County	County Beach #	Waterbody	* DNR Owned	Beach Location
	79	Bay	3	Saginaw Bay		North Pinconning Beach
	80	Bay	4	Saginaw Bay		South Pinconning Beach
9	81	Benzie	1	Lake Michigan		County Road # 669
	82	Benzie	2	Lake Michigan		Elberta Village Beach & Bluffs
	83	Benzie	3	Lake Michigan		Sleeping Bear Dunes - Esch Road/Otter Creek
	84	Benzie	4	Lake Michigan		Sleeping Bear Dunes - Platte River Point
	85	Benzie	5	Lake Michigan		Point Betsie Lighthouse Beach
	86	Benzie	6	Lake Michigan		Sleeping Bear Dunes-Peterson Road Beach
	87	Benzie	7	Lake Michigan		Zettenberg Preserve
10	88	Berrien	1	Lake Michigan		Bethany Beach area
	89	Berrien	2	Lake Michigan		Galien River Park
	90	Berrien	3	Lake Michigan		Gordon Beach
	91	Berrien	4	Lake Michigan	*	Grand Mere State Park- Rosemary Beach
	92	Berrien	5	Lake Michigan	*	Grand Mere State Park- Shoreline Beach
	93	Berrien	6	Lake Michigan	*	Grand Mere State Park- Waverland Beach
	94	Berrien	7	Lake Michigan		Harbert Beach
	95	Berrien	8	Lake Michigan		Mizpah Park
	96	Berrien	9	Lake Michigan	*	Warren Dunes State Park North
11	97	Charlevoix	1	Lake Charlevoix		Peninsula Beach
	98	Charlevoix	2	Lake Charlevoix		Tannery Park
	99	Charlevoix	3	Lake Michigan	*	Bill Wagner Memorial Campground Beach
	100	Charlevoix	4	Lake Michigan	*	Cables Bay Beach
	101	Charlevoix	5	Lake Michigan		Donegal Bay
	102	Charlevoix	6	Lake Michigan		Harbor Beach
	103	Charlevoix	7	Lake Michigan		Iron Ore Bay Beach
	104	Charlevoix	8	Lake Michigan		Mt. McSauba Beach
12	105	Cheboygan	1	Lake Huron		Alexander Henry Park
	106	Cheboygan	2	Lake Huron	*	Cheboygan State Park Duncan Bay
	107	Cheboygan	3	Lake Huron	*	Cheboygen State Park- Lighthouse Point
	108	Cheboygan	4	Lake Huron		Ditta Park
	109	Cheboygan	5	Lake Huron		Huron Street Beach
	110	Cheboygan	6	Lake Huron		Mackinaw City Beach
	111	Cheboygan	7	Lake Huron		Mackinaw City Lighthouse Park
	112	Cheboygan	8	Lake Huron		Mill Creek Public Access
	113	Cheboygan	9	Lake Huron		Pinewood Circle Road End Beach
	114	Cheboygan	10	Lake Huron		Roadside Park MDOT, US-23
	115	Cheboygan	11	Lake Huron		Stoney Point Road End Beach
	116	Cheboygan	12	Lake Huron		Wawatam City Park
13	117	Chippewa	1	Lake Huron		Bass Cove Beach-Drummond Island
	118	Chippewa	2	Lake Huron		Betsey Seaman Memorial Park-Drummond Island
	119	Chippewa	3	Lake Huron		Big Shoal Cove
	120	Chippewa	4	Lake Huron	*	De Tour State Park Shoreline Beach
	121	Chippewa	5	Lake Huron		Detour Albany Beach
	122	Chippewa	6	Lake Huron		Drummond Island Township Park
	123	Chippewa	7	Lake Huron		Sand Bay Beach-Drummond Island
	124	Chippewa	8	Lake Superior	*	Back Bay Boat Launch
	125	Chippewa	9	Lake Superior	*	Bayview Campground
	126	Chippewa	10	Lake Superior		Big Pines Day Use Area
	127	Chippewa	11	Lake Superior		Hiawatha National Forest- Nodoway Point Area
	128	Chippewa	12	Lake Superior		Hiawatha National Forest- North of Big Pine Picnic
	129	Chippewa	13	Lake Superior		Hiawatha National Forest- Pendills Bay
	130	Chippewa	14	Lake Superior		Hiawatha National Forest- Pendills Lake
	131	Chippewa	15	Lake Superior		Hiawatha National Forest- Point Iroquois Light
	132	Chippewa	16	Lake Superior		Hiawatha National Forest- Tahquamenon Bay
	133	Chippewa	17	Lake Superior		Hiawatha National Forest- West of Salt Point
	134	Chippewa	18	Lake Superior		Pendills Beach
	135	Chippewa	19	Lake Superior		Public Shoreline Beach-Browns Creek Area
	136	Chippewa	20	Lake Superior		Public Shoreline Beach-Marsh Lake Area
	137	Chippewa	21	Lake Superior		Public Shoreline Beach-Northwest of Two Mile Lake
	138	Chippewa	22	Lake Superior		Public Shoreline Beach-Weatherhog Lake East Area
	139	Chippewa	23	Lake Superior		Public Shoreline Beach-Weatherhog Lake West
	140	Chippewa	24	Lake Superior		Public Shoreline Beach-West of Whitefish Point
	141	Chippewa	25	Lake Superior		Superior Township Public Access
	142	Chippewa	26	Lake Superior	*	Tahquamenon Falls State Park-River Mouth Unit
	143	Chippewa	27	Lake Superior	*	Whitefish Bay Picnic Area
	144	Chippewa	28	Lake Superior		Whitefish Point
	145	Chippewa	29	St. Mary's River	*	Dunbar Park
	146	Chippewa	30	St. Mary's River		Hiawatha National Forest- North Pond
	147	Chippewa	31	St. Mary's River		Hiawatha National Forest- Waiska Bay
	148	Chippewa	32	St. Mary's River	*	Lake Superior State Forest- Munuscong Lake
	149	Chippewa	33	St. Mary's River		Public Shoreline Beach-Brush Point
	150	Chippewa	34	St. Mary's River		Public Shoreline Beach-Point Aux Frenes
	151	Chippewa	35	St. Mary's River		Public Shoreline Beach-Raber Bay stretch
	152	Chippewa	36	St. Mary's River		Wilderness Beach
14	153	Delta	1	Fishdam River	*	Big Bay De Noc/ Fishdam River Public Access
	154	Delta	2	Lake Michigan		Camp Harstad
	155	Delta	3	Lake Michigan	*	Fayette State Park
	156	Delta	4	Lake Michigan		Fuller Park

Appendix E.2. Great Lakes Beaches Not Monitored 2018.

County #	Total Beach #	County	County Beach #	Waterbody	* DNR Owned	Beach Location
	157	Delta	5	Lake Michigan		Little Bay De Noc Public Beach Access
	158	Delta	6	Lake Michigan		Portage Bay Forest Campground
	159	Delta	7	Lake Michigan		Public Shoreline Beach-Charboneau Point
	160	Delta	8	Lake Michigan		Public Shoreline Beach-County Road 481
	161	Delta	9	Lake Michigan		Public Shoreline Beach-East Wilsey Bay
	162	Delta	10	Lake Michigan		Public Shoreline Beach-Fishdam River
	163	Delta	11	Lake Michigan		Public Shoreline Beach-Gilnet Haven
	164	Delta	12	Lake Michigan		Public Shoreline Beach-Indian Point
	165	Delta	13	Lake Michigan		Public Shoreline Beach-Indian Town Lake USFS
	166	Delta	14	Lake Michigan		Public Shoreline Beach-Jacks Bluff
	167	Delta	15	Lake Michigan		Public Shoreline Beach-Martin Bay
	168	Delta	16	Lake Michigan		Public Shoreline Beach-Nahma
	169	Delta	17	Lake Michigan		Public Shoreline Beach-North End of Kregg Bay
	170	Delta	18	Lake Michigan		Public Shoreline Beach-North of Stonington
	171	Delta	19	Lake Michigan		Public Shoreline Beach-Ogontz Bay
	172	Delta	20	Lake Michigan		Public Shoreline Beach-Peninsula Point
	173	Delta	21	Lake Michigan		Public Shoreline Beach-Point Detour
	174	Delta	22	Lake Michigan		Public Shoreline Beach-Portage Bay
	175	Delta	23	Lake Michigan		Public Shoreline Beach-Portage Peninsula
	176	Delta	24	Lake Michigan		Public Shoreline Beach-St. Vital's Island
	177	Delta	25	Lake Michigan		Public Shoreline Beach-USFS West Wilsey Bay
	178	Delta	26	Lake Michigan		Public Shoreline Beach-West Side of Kregg Bay
	179	Delta	27	Lake Michigan		Sac Bay County Park
	180	Delta	28	Lake Michigan		Twin Springs Campground and Bathing Beach
15	181	Emmet	1	Lake Michigan		Bliss Township Beach
	182	Emmet	2	Lake Michigan		Church Beach
	183	Emmet	3	Lake Michigan	*	Colonial Michilimamackinac State Park
	184	Emmet	4	Lake Michigan		Forest Beach
	185	Emmet	5	Lake Michigan		Magnus Park
	186	Emmet	6	Lake Michigan		Petoskey Harbor
	187	Emmet	7	Lake Michigan		The Headlands County Park
	188	Emmet	8	Lake Michigan		Thorne Swift Preserve
	189	Emmet	9	Lake Michigan	*	Wilderness State Park-East of the Beach
	190	Emmet	10	Lake Michigan	*	Wilderness State Park-Sturgeon Bay
	191	Emmet	11	Lake Michigan	*	Wilderness State Park-West of Beach
16	192	Gogebic	1	Lake Superior		Black River Harbor Beach
	193	Gogebic	2	Lake Superior		Mouth of the Montreal River
	194	Gogebic	3	Lake Superior	*	Porcupine Mountain State Park-North
	195	Gogebic	4	Lake Superior		Presque Isle Beach
	196	Gogebic	5	Lake Superior	*	Presque Isle State Campground
	197	Gogebic	6	Lake Superior		Public Shoreline Beach-West of Black River
17	198	Grand Traverse	1	Grand Traverse Bay		Archie Park
	199	Grand Traverse	2	Grand Traverse Bay		Old Mission - Center Road Natural Area
	200	Grand Traverse	3	Grand Traverse Bay		Old Mission - MDOT Right of Way-South of M-37
	201	Grand Traverse	4	Grand Traverse Bay	*	Old Mission - Old Mission Point State Park
	202	Grand Traverse	5	Grand Traverse Bay - East Bay		Dock Road
	203	Grand Traverse	6	Grand Traverse Bay-East		Acme Roadside Park & Beach MDOT
	204	Grand Traverse	7	Grand Traverse Bay-East	*	Acme Roadside Park (DNR)
	205	Grand Traverse	8	Grand Traverse Bay-East		Bayside Acme Township Park
	206	Grand Traverse	9	Grand Traverse Bay-East		Deep Water Point
	207	Grand Traverse	10	Grand Traverse Bay-East		East Bay Township Four Mile Road
	208	Grand Traverse	11	Grand Traverse Bay-East		Yuba Beach
	209	Grand Traverse	12	Grand Traverse Bay-Old Mission Peninsula		Bowers Harbor Public Access
	210	Grand Traverse	13	Grand Traverse Bay-Old Mission Peninsula	*	DNR Launch/Beach Center Road
	211	Grand Traverse	14	Grand Traverse Bay-Old Mission Peninsula		Haserot Beach
	212	Grand Traverse	15	Grand Traverse Bay-Old Mission Peninsula		Kroupa Road Access M-22 South of Crain Hill Road
	213	Grand Traverse	16	Grand Traverse Bay-Old Mission Peninsula		Leffingwell Point Beach
	214	Grand Traverse	17	Grand Traverse Bay-Old Mission Peninsula		Old Mission Lighthouse
	215	Grand Traverse	18	Grand Traverse Bay-Old Mission Peninsula		Old Mission Peninsula Twp Park-East of Light House
	216	Grand Traverse	19	Grand Traverse Bay-Old Mission Peninsula		Old Mission Peninsula Twp Park-West of Light House
	217	Grand Traverse	20	Grand Traverse Bay-Old Mission Peninsula		Old Mission Road
	218	Grand Traverse	21	Grand Traverse Bay-Old Mission Peninsula		Peninsula Volunteer Fire Station Point #2
	219	Grand Traverse	22	Grand Traverse Bay-Old Mission Peninsula		Swaney Road
	220	Grand Traverse	23	Grand Traverse Bay-West		Mouth of Boardman
	221	Grand Traverse	24	Grand Traverse Bay-West		Power Island Bay Park
	222	Grand Traverse	25	Grand Traverse Bay-West		Rose Street Access at Peninsula Drive
18	223	Houghton	1	Big Traverse Bay		Schoolcraft Township Campground
	224	Houghton	2	Lake Superior		Mink Farm
	225	Houghton	3	Lake Superior		Public Shoreline Beach-Le Chance Creek
	226	Houghton	4	Lake Superior	*	Public Shoreline Beach-McLain State Park
	227	Houghton	5	Lake Superior		Public Shoreline Beach-S. of Portage Entry
	228	Houghton	6	Lake Superior		Public Shoreline Beach-Southwest County Border
19	229	Huron	1	Lake Huron		County Road End
	230	Huron	2	Lake Huron		Geiger Road Public Access
	231	Huron	3	Lake Huron		Grindstone Public Access
	232	Huron	4	Lake Huron		Harbor Beach Marina
	233	Huron	5	Lake Huron		Helena Road End
	234	Huron	6	Lake Huron		Kinch Road End

Appendix E.2. Great Lakes Beaches Not Monitored 2018.

County #	Total Beach #	County	County Beach #	Waterbody	* DNR Owned	Beach Location
	235	Huron	7	Lake Huron		Larned Road End
	236	Huron	8	Lake Huron		Lighthouse County Park
	237	Huron	9	Lake Huron		Lighthouse County Park-South
	238	Huron	10	Lake Huron		Mud Creek Public Acess
	239	Huron	11	Lake Huron		Stafford County Park
20	240	Iosco	1	Lake Huron		Au Sable Point Beach
	241	Iosco	2	Lake Huron		Interlake Road End
	242	Iosco	3	Lake Huron		Lake To Lake Road
	243	Iosco	4	Lake Huron	*	Tawas Point State Park-Central
	244	Iosco	5	Lake Huron	*	Tawas Point State Park-North
	245	Iosco	6	Lake Huron (Tawas Bay)	*	MDNR access E. Tawas
21	246	Keweenaw	1	Lake Superior		Brunette Park
	247	Keweenaw	2	Lake Superior		Cat Harbor Beach
	248	Keweenaw	3	Lake Superior	*	Copper Harbor Lighthouse Complex
	249	Keweenaw	4	Lake Superior	*	Fort Wilkins State Park-East
	250	Keweenaw	5	Lake Superior	*	Fort Wilkins State Park-West
	251	Keweenaw	6	Lake Superior		Mouth of the Gratiot River Beach
	252	Keweenaw	7	Lake Superior		Point Isabelle Beach
	253	Keweenaw	8	Lake Superior		Public Shoreline Beach-Gay Park
22	254	Leelanau	1	Grand Traverse Bay		Boughy Park & Beach
	255	Leelanau	2	Grand Traverse Bay-West	*	Cathead Bay, Leelanau State Park
	256	Leelanau	3	Grand Traverse Bay-West		Christmas Cove
	257	Leelanau	4	Grand Traverse Bay-West		Graham Green Park
	258	Leelanau	5	Grand Traverse Bay-West		Hendryx County Roadside Park
	259	Leelanau	6	Grand Traverse Bay-West		M-22 at M-72 Public Access
	260	Leelanau	7	Grand Traverse Bay-West		MDOT Roadside Park & Beach
	261	Leelanau	8	Grand Traverse Bay-West		MDOT Roadside Park & Beach M-22 N of Cherry Bend D
	262	Leelanau	9	Grand Traverse Bay-West		Northport 4th Street Beach
	263	Leelanau	10	Grand Traverse Bay-West		Northport 5th Street Beach
	264	Leelanau	11	Grand Traverse Bay-West		Northport 7th Street Beach
	265	Leelanau	12	Grand Traverse Bay-West		Northport Haserot Beach, Rose Street
	266	Leelanau	13	Grand Traverse Bay-West		Omena Beach & Park
	267	Leelanau	14	Grand Traverse Bay-West		Stoney Point County Roadside Park
	268	Leelanau	15	Grand Traverse Bay-West		Suttons Bay North Shore Park
	269	Leelanau	16	Lake Michigan		Bay Front Park
	270	Leelanau	17	Lake Michigan		Cedar Street Beach
	271	Leelanau	18	Lake Michigan		G. Marsten Dame Marina
	272	Leelanau	19	Lake Michigan		Gils Pier
	273	Leelanau	20	Lake Michigan		Glen Arbor/Manitou Boulevard Beach
	274	Leelanau	21	Lake Michigan		Lake Street Beach, Glen Arbor
	275	Leelanau	22	Lake Michigan	*	Leelanau State Park, Lighthouse
	276	Leelanau	23	Lake Michigan		Leland Harbor
	277	Leelanau	24	Lake Michigan		North Bar
	278	Leelanau	25	Lake Michigan		North Street Beach
	279	Leelanau	26	Lake Michigan		Peterson Park
	280	Leelanau	27	Lake Michigan		Reynolds Street Beach
	281	Leelanau	28	Lake Michigan		Sleeping Bear Dunes-DH Day Campground
	282	Leelanau	29	Lake Michigan		Sleeping Bear Dunes- CR 669 Good Harbor Bay
	283	Leelanau	30	Lake Michigan		Sleeping Bear Dunes-CR 651 Good Harbor Bay
	284	Leelanau	31	Lake Michigan		Sleeping Bear Dunes-Glen Haven Beach
	285	Leelanau	32	Lake Michigan		Sleeping Bear Dunes-North Bar Lake MI Beach
	286	Leelanau	33	Lake Michigan		Smith Street Beach Northport
	287	Leelanau	34	Lake Michigan		Thompson Stree Beach
	288	Leelanau	35	Lake Michigan - Grand Traverse Bay		Elder's Park Beach
23	289	Luce	1	Lake Superior		Blind Sucker River # 1
	290	Luce	2	Lake Superior		Blind Sucker River # 2
	291	Luce	3	Lake Superior		Crisp Point Light House
	292	Luce	4	Lake Superior		Lake Superior Campground Beach
	293	Luce	5	Lake Superior		Mouth of the Two Hearted River Campground
	294	Luce	6	Lake Superior		Public Shoreline Beach-Blind Sucker Flooding Area
	295	Luce	7	Lake Superior		Public Shoreline Beach-Coast Guard Line Road
	296	Luce	8	Lake Superior		Public Shoreline Beach-County Rd 407
	297	Luce	9	Lake Superior		Public Shoreline Beach-County Rd 412 and Crisp Pt
	298	Luce	10	Lake Superior		Public Shoreline Beach-Little Sucker/Two Hearted R
	299	Luce	11	Lake Superior		Public Shoreline Beach-Three Mile Creek Area
	300	Luce	12	Lake Superior		Public Shoreline Beach-West County Border Beach
	301	Luce	13	Lake Superior		Unnamed Road End #1
	302	Luce	14	Lake Superior		Unnamed Road End #2
	303	Luce	15	Lake Superior		Unnamed Road End #3
24	304	Mackinac	1	Lake Huron		American Legion Memorial Park
	305	Mackinac	2	Lake Huron		Antoine Road End
	306	Mackinac	3	Lake Huron		Best Western Lakefront
	307	Mackinac	4	Lake Huron		Boot Island
	308	Mackinac	5	Lake Huron		Castle Rock Campground (Privately owned)
	309	Mackinac	6	Lake Huron		Coast Guard Pier Boat Launch and City Park
	310	Mackinac	7	Lake Huron		Foley Creek Campground
	311	Mackinac	8	Lake Huron		Government Island-Hiawatha National Forest
	312	Mackinac	9	Lake Huron		Harbour Light

Appendix E.2. Great Lakes Beaches Not Monitored 2018.

County #	Total Beach #	County	County Beach #	Waterbody	* DNR Owned	Beach Location
	313	Mackinac	10	Lake Huron		Hazelton Road End
	314	Mackinac	11	Lake Huron		Hiawatha National Forest- Carp River Access
	315	Mackinac	12	Lake Huron		Horseshoe Bay Wilderness-North
	316	Mackinac	13	Lake Huron		Horseshoe Bay Wilderness-South
	317	Mackinac	14	Lake Huron		K Royale
	318	Mackinac	15	Lake Huron		Kewadin Inn
	319	Mackinac	16	Lake Huron		State Street Road End
	320	Mackinac	17	Lake Huron	*	Straits State Park
	321	Mackinac	18	Lake Huron		Wetland Shoreline-St. Martin Point
	322	Mackinac	19	Lake Michigan	*	Big Knob State Forest Campground
	323	Mackinac	20	Lake Michigan	*	Black River State Forest Campground
	324	Mackinac	21	Lake Michigan		Epoufette Bay Campground
	325	Mackinac	22	Lake Michigan		Hog Island Campground
	326	Mackinac	23	Lake Michigan		Lake Michigan US-2 Campground Beach
	327	Mackinac	24	Lake Michigan		Lake Shore Campground
	328	Mackinac	25	Lake Michigan		Lakeshore RV Campground
	329	Mackinac	26	Lake Michigan		MDOT Overlook
	330	Mackinac	27	Lake Michigan		MDOT Roadside Park on US 2
	331	Mackinac	28	Lake Michigan		Miller's Hog Island Subdivision Beach
	332	Mackinac	29	Lake Michigan		Mouth of Cut River Roadside Beach
	333	Mackinac	30	Lake Michigan		Naubinway Bay Access
	334	Mackinac	31	Lake Michigan		Public Shoreline Beach #2-Little Hog Island area
	335	Mackinac	32	Lake Michigan		Public Shoreline Beach #2-Manitou Paymen Highbanks
	336	Mackinac	33	Lake Michigan		Public Shoreline Beach #3-Little Hog Island area
	337	Mackinac	34	Lake Michigan		Public Shoreline Beach #4-Little Hog Island area
	338	Mackinac	35	Lake Michigan		Public Shoreline Beach #5-Little Hog Island area
	339	Mackinac	36	Lake Michigan		Public Shoreline Beach-Epoufette Bay
	340	Mackinac	37	Lake Michigan		Public Shoreline Beach-Fox Point Area
	341	Mackinac	38	Lake Michigan		Public Shoreline Beach-Little Hog Island area
	342	Mackinac	39	Lake Michigan		Public Shoreline Beach-Manitou Paymen Highbanks
	343	Mackinac	40	Lake Michigan	*	Public Shoreline Beach-MDNR Matrix Point Area
	344	Mackinac	41	Lake Michigan		Public Shoreline Beach-Morean Township, Section 25
	345	Mackinac	42	Lake Michigan		Public Shoreline Beach-Naubinway Area
	346	Mackinac	43	Lake Michigan		Public Shoreline Beach-Pointe Aux Chenes Bay
	347	Mackinac	44	Lake Michigan		Public Shoreline Beach-Seiners Point
	348	Mackinac	45	Lake Michigan		Public Shoreline Beach-South of Brevort River
	349	Mackinac	46	Lake Michigan	*	Public Shoreline Beach-State Forest Matrix Point
	350	Mackinac	47	Lake Michigan		Sand Point
	351	Mackinac	48	Lake Michigan	*	State Roadside Park Beach
25	352	Macomb	1	Lake St. Clair		H.C.M.A.-Huron Point
26	353	Manistee	1	Lake Michigan	*	Orchard Beach State Park
	354	Manistee	2	Lake Michigan		Portage Park
27	355	Marquette	1	Lake Superior		Public Shoreline Beach-Big Huron River
	356	Marquette	2	Lake Superior		Public Shoreline Beach-Little Presque Isle
28	357	Mason	1	Lake Michigan	*	Ludington State Park Public Shoreline Beach North
	358	Mason	2	Lake Michigan	*	Ludington State Park Public Shoreline Beach South
	359	Mason	3	Lake Michigan		Manistee National Forest Campground Beach
	360	Mason	4	Lake Michigan		Manistee National Forest-Public Shoreline Beach N
	361	Mason	5	Lake Michigan		Manistee National Forest-Public Shoreline Beach S
	362	Mason	6	Lake Michigan		Pere Marquette Harbor
29	363	Menominee	1	Lake Michigan		Airport Park
	364	Menominee	2	Lake Michigan		Fox Park
	365	Menominee	3	Lake Michigan		Klienke Park
	366	Menominee	4	Lake Michigan		Public Shoreline Beach-Cedar River
	367	Menominee	5	Lake Michigan		Public Shoreline Beach-Fox village
	368	Menominee	6	Lake Michigan	*	Wells State Park
30	369	Monroe	1	Lake Erie		Avalon Beach
	370	Monroe	2	Lake Erie		Bolles Harbor
	371	Monroe	3	Lake Erie		Detroit Beach
	372	Monroe	4	Lake Erie		Estral Beach
	373	Monroe	5	Lake Erie		LaSalle Township-Toledo Beach
	374	Monroe	6	Lake Erie		Lost Peninsula
	375	Monroe	7	Lake Erie		North Cape Yacht Club
	376	Monroe	8	Lake Erie		Point Aux Peaux
	377	Monroe	9	Lake Erie		Stoney Point
	378	Monroe	10	Lake Erie		Woodland Beach
31	379	Oceana	1	Lake Michigan		Cedar Point County Park
	380	Oceana	2	Lake Michigan	*	Silver Lake State Park
	381	Oceana	3	Silver Lake-Lake Michigan		Silver Creek Channel
32	382	Ontonagon	1	Lake Superior		Green Park
	383	Ontonagon	2	Lake Superior		Gull Point Beach
	384	Ontonagon	3	Lake Superior		Mouth of the Big Iron River Beach
	385	Ontonagon	4	Lake Superior	*	Porcupine Mountain State Park
	386	Ontonagon	5	Lake Superior	*	Porcupine Mountains Wilderness State Park-West
	387	Ontonagon	6	Lake Superior		Public Shoreline Beach-Sleeping Bay
	388	Ontonagon	7	Lake Superior		Public Shoreline Beach-Wolf Point
	389	Ontonagon	8	Lake Superior		Union Bay Beach
33	390	Ottawa	1	Lake Michigan		Grand Haven City Beach

Appendix E.2. Great Lakes Beaches Not Monitored 2018.

County #	Total Beach #	County	County Beach #	Waterbody	* DNR Owned	Beach Location
	391	Ottawa	2	Lake Michigan		Kirk Park
	392	Ottawa	3	Lake Michigan		Kouw Park
	393	Ottawa	4	Lake Michigan		Mountain Beach
	394	Ottawa	5	Lake Michigan	*	P.J. Hoffmaster State Park- Shoreline Beach
	395	Ottawa	6	Lake Michigan	*	Rosy Mound Recreation Area
34	396	Presque Isle	1	Lake Huron		40 Mile Point Park
	397	Presque Isle	2	Lake Huron		Ball Diamond Park
	398	Presque Isle	3	Lake Huron		Bell Bay
	399	Presque Isle	4	Lake Huron		Evergreen Beach
	400	Presque Isle	5	Lake Huron		Golden Beach
	401	Presque Isle	6	Lake Huron		Grace Access Site
	402	Presque Isle	7	Lake Huron		Hammond Bay Access Site
	403	Presque Isle	8	Lake Huron		Hammond Bay Harbor
	404	Presque Isle	9	Lake Huron	*	Hoeft State Park-North
	405	Presque Isle	10	Lake Huron	*	Hoeft State Park-South
	406	Presque Isle	11	Lake Huron		Lakeside Park Beach
	407	Presque Isle	12	Lake Huron		Lakeside Park in Rogers City
	408	Presque Isle	13	Lake Huron		Lakeview Park Beach
	409	Presque Isle	14	Lake Huron		Manitou Beach
	410	Presque Isle	15	Lake Huron		New Lighthouse Park
	411	Presque Isle	16	Lake Huron		Presque Isle Harbor
	412	Presque Isle	17	Lake Huron		Presque Isle Harbor Beach
	413	Presque Isle	18	Lake Huron		Public Shoreline Beach-False Presque Isle Harbor
	414	Presque Isle	19	Lake Huron		Seagull Point Park
	415	Presque Isle	20	Lake Huron	*	Thompson's Harbor State Park
	416	Presque Isle	21	Lake Huron		US 23 Hammond Bay
	417	Presque Isle	22	Lake Huron		US 23 Roger City
35	418	Sanilac	1	Lake Huron		Birch Beach
	419	Sanilac	2	Lake Huron		Birch Beach Middle #2
	420	Sanilac	3	Lake Huron		Birch Beach North #3
	421	Sanilac	4	Lake Huron		Blue Water Beach
	422	Sanilac	5	Lake Huron		Delaware Park
	423	Sanilac	6	Lake Huron		Great Lakes Beach
	424	Sanilac	7	Lake Huron		Great Lakes Beach #1
	425	Sanilac	8	Lake Huron		Sanilac County Park #4
	426	Sanilac	9	Lake Huron		Sanilac County Roadside Park #1
36	427	Schoolcraft	1	Lake Michigan		Doyle Township Access
	428	Schoolcraft	2	Lake Michigan		Goudreau's Harbor Seul Choix Point-Boat Landing
	429	Schoolcraft	3	Lake Michigan		Lakeview Park
	430	Schoolcraft	4	Lake Michigan		Manistique Township Park
	431	Schoolcraft	5	Lake Michigan		Public Shoreline Beach-S. of McDonald Lake
	432	Schoolcraft	6	Lake Michigan		Public Shoreline Beach-Thompson Village
	433	Schoolcraft	7	Lake Michigan		Roadside Park Beach
	434	Schoolcraft	8	Lake Michigan		Seul Choix Point-Boat Landing
37	435	St. Clair	1	Lake Huron		Burtchville Township Park
	436	St. Clair	2	Lake Huron		Jeddo Road Beach
	437	St. Clair	3	Lake Huron		Krafft Road Beach
	438	St. Clair	4	Lake Huron	*	Lakeport State Park
	439	St. Clair	5	Lake Huron		Metcalf Road Beach
	440	St. Clair	6	Lake Huron		Washington Street Park
	441	St. Clair	7	St. Clair River		Marine City Diving Area
38	442	Wayne	1	Detroit River	*	Belle Isle Beach
	443	Wayne	2	Detroit River		Elizabeth Park
	444	Wayne	3	Lake Erie		Southern Wayne County Border
	445	Wayne	4	Lake St. Clair		Crescent Sail Yacht Club

Appendix F.1. 2018 Daily Water Samples from Inland Lake Beaches that Exceeded Michigan's WQS

County #	Total Beach #	County	County Beach #	Waterbody	* DNR Owned	Beach Location	Sampling Date	*E. coli* Test Results (# / 100 mL)
1	1	Antrim	1	Torch Lake		Eastport	9/5	921
2	2	Benzie	1	Crystal Lake		Beulah Beach	6/13	980
	2	Benzie	2	Crystal Lake		Beulah Beach	8/29	435
3	3	Charlevoix	1	Thumb Lake		Thumb Lake Beach	8/14	435
4	4	Emmet	1	Crooked Lake		Little Traverse Township Beach	7/25	1553
	4	Emmet	2	Crooked Lake		Little Traverse Township Beach	7/31	2420
	4	Emmet	3	Crooked Lake		Little Traverse Township Beach	8/13	1414
	4	Emmet	4	Crooked Lake		Little Traverse Township Beach	8/14	353
	5	Emmet	5	Crooked Lake		Oden Beach	8/28	2420
	5	Emmet	6	Crooked Lake		Oden Beach	8/29	359
	6	Emmet	7	Pickerel Lake		Camp Petosega	7/31	1120
	6	Emmet	8	Pickerel Lake		Camp Petosega	8/13	980
5	7	Gladwin	1	Ross Lake		Beaverton City Park	7/24	1560
6	8	Iosco	1	Van Ettan Lake		Oscoda Township Park- Van Ettan Lake	7/24	460
	8	Iosco	2	Van Ettan Lake		Oscoda Township Park- Van Ettan Lake	7/25	370
7	9	Kalamazoo	1	Campbell Lake		Robert Morris Park	6/18	395
	10	Kalamazoo	2	Long Lake		Ramona Park	8/13	1894
	11	Kalamazoo	3	Sunset Lake		Sunset Lake Park	5/29	488
	12	Kalamazoo	4	Woods Lake		Woods Lake Beach	7/23	309
8	13	Leelanau	1	South Bar Lake		South Bar Lake - South End	6/13	1120
9	14	Livingston	1	Cook Lake		Taylor's Beach	5/23	2419
	14	Livingston	2	Cook Lake		Taylor's Beach	7/5	980
10	15	Macomb	1	Stony Creek Lake-Impoundment		Stony Creek Metropark-Baypoint Beach	4/16	650
	15	Macomb	2	Stony Creek Lake-Impoundment		Stony Creek Metropark-Baypoint Beach	8/1	1330
11	16	Marquette	1	Dead River Reservoir		Marquette Tourist Park Beach	7/2	490
12	17	Midland	1	Kiwassee Lake		Stratford Woods Park Beach	6/13	1166
	17	Midland	2	Kiwassee Lake		Stratford Woods Park Beach	6/20	310
	17	Midland	3	Kiwassee Lake		Stratford Woods Park Beach	6/21	506
	17	Midland	4	Kiwassee Lake		Stratford Woods Park Beach	6/27	1117
13	18	Muskegon	1	Mona Lake		Mona Lake Park Beach	6/19	435
	18	Muskegon	2	Mona Lake		Mona Lake Park Beach	6/20	2420
	18	Muskegon	3	Mona Lake		Mona Lake Park Beach	6/25	866
	19	Muskegon	4	Twin Lake		Twin Lake County Park Beach	7/25	579
	20	Muskegon	5	White Lake		Maple Park	7/11	1553
	20	Muskegon	6	White Lake		Maple Park	7/16	579
	21	Muskegon	7	Wolf Lake		Sunset Park	6/20	1120
14	22	Oakland	1	Allen Lake		Fox Bay Civic Association	7/2	345
	23	Oakland	2	Cass Lake	*	Dodge Park #4	7/24	304
	24	Oakland	3	Chalmers Lake		Woodcrest Farms Subdivision - Claridion Street	8/1	1085
	25	Oakland	4	Eagle Lake		Eagle Lake Road	6/18	426
	26	Oakland	5	Eagle Lake		Lakeland Estates	7/16	1498
	26	Oakland	6	Eagle Lake		Lakeland Estates	7/17	516
	26	Oakland	7	Eagle Lake		Lakeland Estates	7/18	1072
	26	Oakland	8	Eagle Lake		Lakeland Estates	7/19	942
	26	Oakland	9	Eagle Lake		Lakeland Estates	7/23	1243
	26	Oakland	10	Eagle Lake		Lakeland Estates	7/24	2420
	26	Oakland	11	Eagle Lake		Lakeland Estates	7/25	602
	26	Oakland	12	Eagle Lake		Lakeland Estates	7/26	2164
	26	Oakland	13	Eagle Lake		Lakeland Estates	7/30	2420
	26	Oakland	14	Eagle Lake		Lakeland Estates	7/31	1225
	26	Oakland	15	Eagle Lake		Lakeland Estates	8/1	394
	26	Oakland	16	Eagle Lake		Lakeland Estates	8/2	700
	26	Oakland	17	Eagle Lake		Lakeland Estates	8/13	403
	27	Oakland	18	Scotch Lake		Scotch Lake Residents	6/25	411
	27	Oakland	19	Scotch Lake		Scotch Lake Residents	6/26	2027
	27	Oakland	20	Scotch Lake		Scotch Lake Residents	6/28	2419
	27	Oakland	21	Scotch Lake		Scotch Lake Residents	7/2	2164
	27	Oakland	22	Scotch Lake		Scotch Lake Residents	7/11	874
	27	Oakland	23	Scotch Lake		Scotch Lake Residents	7/12	399
	27	Oakland	24	Scotch Lake		Scotch Lake Residents	7/17	305

Appendix F.1. 2018 Daily Water Samples from Inland Lake Beaches that Exceeded Michigan's WQS

County #	Total Beach #	County	County Beach #	Waterbody	* DNR Owned	Beach Location	Sampling Date	*E. coli* Test Results (# / 100 mL)
	27	Oakland	25	Scotch Lake		Scotch Lake Residents	7/23	380
	27	Oakland	26	Scotch Lake		Scotch Lake Residents	7/24	602
	28	Oakland	27	Stewart Lake		Groveland Oaks County Par - Paradise Beach	6/26	527
	29	Oakland	28	Teeple Lake	*	Teeple Lake Recreation Area - Highland State Park	8/8	376
	29	Oakland	29	Teeple Lake	*	Teeple Lake Recreation Area - Highland State Park	8/9	365
	30	Oakland	30	Tipsico Lake		Brown's Landing Mobile Home Park	8/8	1441
	31	Oakland	31	Tommys Lake		Camp Agawam Boy Scout Camp	7/17	344
	32	Oakland	32	Upper Pettibone Lake		657 Dunleavy	7/17	662
	32	Oakland	33	Upper Pettibone Lake		657 Dunleavy	8/7	317
	33	Oakland	34	Walled Lake		Lakeshore Park	6/12	381
	34	Oakland	35	Wolverine Lake		Spring Lake Heights	8/7	727
15	35	Ontonagon	1	Bond Lake		Bond Falls Flowage	6/29	679
16	36	Roscommon	1	Lake St. Helen		Richfield Township Public Fishing Site	6/20	849
17	37	Washtenaw	1	Sugarloaf Lake	*	Waterloo Recreation Area	7/24	320
18	38	Wayne	1	Belleville Lake		Van Buren Township Park	9/4	481
	39	Wayne	2	Newburgh Lake		Newburgh and Sumac Pointes - Hines Park	6/25	420
	39	Wayne	3	Newburgh Lake		Newburgh and Sumac Pointes - Hines Park	7/2	320
	39	Wayne	4	Newburgh Lake		Newburgh and Sumac Pointes - Hines Park	7/16	2600
	39	Wayne	5	Newburgh Lake		Newburgh and Sumac Pointes - Hines Park	7/23	1200
	39	Wayne	6	Newburgh Lake		Newburgh and Sumac Pointes - Hines Park	7/30	5400
	39	Wayne	7	Newburgh Lake		Newburgh and Sumac Pointes - Hines Park	8/20	1500
	40	Wayne	8	Sherwood Lake		Sherwood Park	8/13	1600
	41	Wayne	9	Silver Spring Lake		Silver Spring Lake	7/9	500
	41	Wayne	10	Silver Spring Lake		Silver Spring Lake	7/23	2300
19	42	Wexford	1	Billings Lake		Manton Park	8/30	345
	43	Wexford	2	Lake Cadillac		City Park	9/5	461

Appendix F.2. 2018 Daily Water Samples from Great Lakes Beaches that Exceeded Michigan's WQS

County #	Total Beach #	County	County Beach #	Waterbody	* DNR Owned	Beach Location	Sampling Date	*E. coli* Test Result (# / 100 mL)
1	1	Allegan	1	Lake Michigan		Laketown Township Park	6/28	1414
	2	Allegan	2	Lake Michigan		Pier Cove Beach	6/28	1553
	3	Allegan	3	Lake Michigan		West Side County Park Beach	6/28	2420
	3	Allegan	4	Lake Michigan		West Side County Park Beach	7/17	326
2	4	Antrim	1	Lake Michigan		Veterans Memorial Park	7/17	365
3	5	Arenac	1	Saginaw Bay		Whites Beach	6/5	1733
	5	Arenac	2	Saginaw Bay		Whites Beach	6/11	461
	5	Arenac	3	Saginaw Bay		Whites Beach	7/18	516
	6	Arenac	4	Saginaw Bay-Lake Huron		Bessinger Road Beach	7/23	387
	7	Arenac	5	Saginaw Bay-Lake Huron		Foster Road Beach	7/2	326
	8	Arenac	6	Saginaw Bay-Lake Huron	*	Singing Bridge Beach	7/23	537
4	9	Bay	1	Saginaw Bay-Lake Huron	*	Bay City State Recreation Area	5/29	1045
	9	Bay	2	Saginaw Bay-Lake Huron	*	Bay City State Recreation Area	5/29	1553
	9	Bay	3	Saginaw Bay-Lake Huron	*	Bay City State Recreation Area	5/30	365
	9	Bay	4	Saginaw Bay-Lake Huron	*	Bay City State Recreation Area	5/30	365
	10	Bay	5	Saginaw Bay-Lake Huron		Brissette Beach Township Park	5/29	921
	10	Bay	6	Saginaw Bay-Lake Huron		Brissette Beach Township Park	8/8	1120
	11	Bay	7	Saginaw Bay-Lake Huron		South Linwood Beach Township Park	5/29	1414
	11	Bay	8	Saginaw Bay-Lake Huron		South Linwood Beach Township Park	5/29	1203
	11	Bay	9	Saginaw Bay-Lake Huron		South Linwood Beach Township Park	7/18	308
5	12	Berrien	1	Lake Michigan		Lions Park	6/11	400
	12	Berrien	2	Lake Michigan		Lions Park	6/18	430
	13	Berrien	3	Lake Michigan		Michiana Village	6/11	310
	14	Berrien	4	Lake Michigan	*	Warren Dunes Beach	6/18	360
	14	Berrien	5	Lake Michigan	*	Warren Dunes Beach	7/2	380
6	15	Charlevoix	1	Lake Charlevoix		East Jordan Tourist Park	6/25	435
	15	Charlevoix	2	Lake Charlevoix		East Jordan Tourist Park	9/5	435
	16	Charlevoix	3	Lake Michigan	*	Fisherman's Island State Park	8/29	770
7	17	Chippewa	1	Lake Superior	*	Brimley State Park	8/6	920
	18	Chippewa	2	Lake Superior		Sherman Park	9/11	388
8	19	Grand Traverse	1	Grand Traverse Bay-West		Bryant Park Beach	9/5	410
	20	Grand Traverse	2	Grand Traverse Bay-West		Senior Center	8/29	410
	20	Grand Traverse	3	Grand Traverse Bay-West		Senior Center	9/5	613
	21	Grand Traverse	4	Grand Traverse Bay-West		Sunset Park	8/29	307
	21	Grand Traverse	5	Grand Traverse Bay-West		Sunset Park	9/5	365
	21	Grand Traverse	6	Grand Traverse Bay-West		Sunset Park	9/6	418
	22	Grand Traverse	7	Grand Traverse Bay-West		West End Beach	8/29	547
9	23	Houghton	1	Lake Superior		Agate Beach	7/13	1632
	24	Houghton	2	Lake Superior	*	McLain State Park Beach	7/13	323
	25	Houghton	3	Portage Canal / Lake Superior		Hancock City Beach	6/29	359
10	26	Huron	1	Lake Huron		Bird Creek County Park	6/18	411
	26	Huron	2	Lake Huron		Bird Creek County Park	7/23	2420
	27	Huron	3	Lake Huron		Thompson Park	6/19	770
11	28	Iosco	1	Lake Huron		Alabaster Township Douglas Drive Beach Use Area	6/19	650
12	29	Leelanau	1	Grand Traverse Bay-West		Northport Bay Marina	8/29	1300
	30	Leelanau	2	Grand Traverse Bay-West		Suttons Bay Marina Park & Beach	8/22	1413
13	31	Mackinac	1	Lake Huron		Kiwanis Beach	8/13	1419
	31	Mackinac	2	Lake Huron		Kiwanis Beach	8/14	579
	31	Mackinac	3	Lake Huron		Kiwanis Beach	8/20	397
14	32	Macomb	1	Lake St. Clair		H.C.M.A. - Lake St. Clair Metropark Beach	6/27	1602
	32	Macomb	2	Lake St. Clair		H.C.M.A. - Lake St. Clair Metropark Beach	7/23	388
	32	Macomb	3	Lake St. Clair		H.C.M.A. - Lake St. Clair Metropark Beach	9/5	691
	32	Macomb	4	Lake St. Clair		H.C.M.A. - Lake St. Clair Metropark Beach	9/12	420
	33	Macomb	5	Lake St. Clair		New Baltimore Park Beach	8/8	837
	33	Macomb	6	Lake St. Clair		New Baltimore Park Beach	9/26	328
	34	Macomb	7	Lake St. Clair		St. Clair Shores Memorial Park Beach	4/16	700
	34	Macomb	8	Lake St. Clair		St. Clair Shores Memorial Park Beach	5/30	1073
	34	Macomb	9	Lake St. Clair		St. Clair Shores Memorial Park Beach	5/31	558
	34	Macomb	10	Lake St. Clair		St. Clair Shores Memorial Park Beach	6/6	625
	34	Macomb	11	Lake St. Clair		St. Clair Shores Memorial Park Beach	6/11	322
	34	Macomb	12	Lake St. Clair		St. Clair Shores Memorial Park Beach	6/20	579
	34	Macomb	13	Lake St. Clair		St. Clair Shores Memorial Park Beach	6/25	302
	34	Macomb	14	Lake St. Clair		St. Clair Shores Memorial Park Beach	7/23	331
	34	Macomb	15	Lake St. Clair		St. Clair Shores Memorial Park Beach	7/25	779
	34	Macomb	16	Lake St. Clair		St. Clair Shores Memorial Park Beach	8/1	2420
	34	Macomb	17	Lake St. Clair		St. Clair Shores Memorial Park Beach	9/26	454

Appendix F.2. 2018 Daily Water Samples from Great Lakes Beaches that Exceeded Michigan's WQS

County #	Total Beach #	County	County Beach #	Waterbody	* DNR Owned	Beach Location	Sampling Date	*E. coli* Test Result (# / 100 mL)
15	35	Manistee	1	Lake Michigan		Fifth Avenue Beach	8/6	333
16	36	Mason	1	Lake Michigan		Summit Township Beach	8/20	2420
17	37	Monroe	1	Lake Erie		Luna Pier City Beach	6/19	1382
	37	Monroe	2	Lake Erie		Luna Pier City Beach	7/31	689
	38	Monroe	3	Lake Erie	*	Sterling State Park	6/19	707
	38	Monroe	4	Lake Erie	*	Sterling State Park	7/31	650
18	39	Muskegon	1	Lake Michigan	*	P.J. Hoffmaster State Park - Public Beach Area	6/19	1345
	39	Muskegon	2	Lake Michigan	*	P.J. Hoffmaster State Park - Public Beach Area	6/26	567
	39	Muskegon	3	Lake Michigan	*	P.J. Hoffmaster State Park - Public Beach Area	6/27	1718
19	40	Oceana	1	Lake Michigan		Claybanks Township Park	8/9	613
	41	Oceana	2	Lake Michigan		Whiskey Creek	8/9	1071
	42	Oceana	3	Stony Lake and Lake Michigan		Stony Lake Channel	8/20	487
20	43	Ontonagon	1	Lake Superior		Public Shoreline Beach-Misery Bay	7/13	1027
21	44	Sanilac	1	Lake Huron		Forestville Beach	8/1	527
	45	Sanilac	2	Lake Huron		Lexington Beach	8/1	517
	46	Sanilac	3	Lake Huron		Lexington County Park	8/28	470
	47	Sanilac	4	Lake Huron		Port Sanilac Park	8/1	1212
	47	Sanilac	5	Lake Huron		Port Sanilac Park	8/28	333
	47	Sanilac	6	Lake Huron		Port Sanilac Park	8/30	411
22	48	St. Clair	1	Lake Huron		Conger-Lighthouse Beach	6/19	961
	48	St. Clair	2	Lake Huron		Conger-Lighthouse Beach	6/20	365
	48	St. Clair	3	Lake Huron		Conger-Lighthouse Beach	7/17	488
	49	St. Clair	4	Lake Huron		Fort Gratiot County Park	6/19	665
	49	St. Clair	5	Lake Huron		Fort Gratiot County Park	6/20	326
	50	St. Clair	6	Lake Huron		Holland Road Beach	6/19	1011
	50	St. Clair	7	Lake Huron		Holland Road Beach	6/20	2420
	50	St. Clair	8	Lake Huron		Holland Road Beach	7/10	866
	50	St. Clair	9	Lake Huron		Holland Road Beach	7/17	770
	50	St. Clair	10	Lake Huron		Holland Road Beach	8/8	1733
	50	St. Clair	11	Lake Huron		Holland Road Beach	8/22	2420
	51	St. Clair	12	Lake Huron		Keewadhin Road Beach	6/19	665
	51	St. Clair	13	Lake Huron		Keewadhin Road Beach	6/20	517
	51	St. Clair	14	Lake Huron		Keewadhin Road Beach	7/17	579
	52	St. Clair	15	Lake Huron		Lakeside Beach	7/17	866
	53	St. Clair	16	St. Clair River		Chrysler Park Beach	6/13	1414
	53	St. Clair	17	St. Clair River		Chrysler Park Beach	6/14	2420
	53	St. Clair	18	St. Clair River		Chrysler Park Beach	6/27	770
	53	St. Clair	19	St. Clair River		Chrysler Park Beach	8/1	1986
23	54	Van Buren	1	Lake Michigan		South Haven North Beach	5/22	303
24	55	Wayne	1	Lake St. Clair		Pier Park	6/4	434

Appendix G.1. Beaches Monitored by National Park Service using Enterococci qPCR 2018.

County #	Total Beach #	County	County Beach #	Waterbody	Beach Location
1	1	Benzie	1	Lake Michigan	Sleeping Bear Dunes-Esch Road Beach
	2	Benzie	2	Lake Michigan	Sleeping Bear Dunes-Platte Point Bay
	3	Benzie	3	Otter Creek	Sleeping Bear Dunes-Otter Creek
	4	Benzie	4	Platte River	Sleeping Bear Dunes-Platte River Outlet
2	5	Leelanau	1	Good Harbor Creek	Good Harbor Creek Outlet
	6	Leelanau	2	Lake Michigan	Sleeping Bear Dunes- CR 669 Good Harbor Bay
	7	Leelanau	3	Lake Michigan	Sleeping Bear Dunes-CR 651 Good Harbor Bay
	8	Leelanau	4	Lake Michigan	Sleeping Bear Dunes-Glen Haven Beach
	9	Leelanau	5	Lake Michigan	Sleeping Bear Dunes-North Bar Lake MI Beach
	10	Leelanau	6	North Bar Lake	Sleeping Bear Dunes-North Bar Lake
	11	Leelanau	7	Shalda Creek	Sleeping Bear Dunes- Shalda Creek

Appendix G.2. 2018 Daily Water Samples from National Park Service Monitored Beaches that Exceeded the Enterococci Beach Action Value

County #	Total Beach #	County	County Beach #	Waterbody	Beach Location	Sampling Date	Entercocci Test Results (cce)
1	1	Leelanau	1	Good Harbor Creek	Good Harbor Creek Outlet	8/29	2187
	2	Leelanau	2	North Bar Lake	Sleeping Bear Dunes-North Bar Lake	7/13	3401
	3	Leelanau	3	Lake Michigan	Sleeping Bear Dunes - CR 669 Good Harbor Bay	8/15	8966
	4	Leelanau	4	Shalda Creek	Sleeping Bear Dunes- Shalda Creek	8/29	3793
	4	Leelanau	4	Shalda Creek	Sleeping Bear Dunes- Shalda Creek	9/4	3487