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STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



DAN WYANT
DIRECTOR

VIA E-MAIL

TO: Senate Appropriations Subcommittee on Environmental Quality Members
House Appropriations Subcommittee on Environmental Quality Members
Ellen Jeffries, Director, Senate Fiscal Agency
Mary Ann Cleary, Director, House Fiscal Agency

FROM: Amy Epkey, Deputy Director, Administration 

DATE: September 30, 2015

SUBJECT: Reports on Funding for the Aquatic Nuisance Control Program and the Water Quality and Use Initiative

In accordance with Sections 401 and 402 of Part 2, Article VII, of 2014 PA 252, attached are the Department of Environmental Quality's (DEQ) reports on additional funding for the Aquatic Nuisance Control Program and the Water Quality and Use Initiative, respectively, for fiscal year 2015.

If you need further information, please contact William Creal, Chief, Water Resources Division, at 517-284-5470; or you may contact me at 517-284-5002.

Attachments

cc/att: John Roberts, Director, State Budget Office
Dick Posthumus, Governor's Office
Sara McCauley, Governor's Office
Josh Sefton, Senate Fiscal Agency
Austin Scott, House Fiscal Agency
Jacques McNeely, State Budget Office
Jennifer Harrison, State Budget Office
Dan Wyant, Director, DEQ
Jim Sygo, Chief Deputy Director, DEQ
Madhu R. Anderson, Deputy Director, DEQ
Maggie Pallone, Deputy Director, DEQ
Sarah M. Howes, Legislative Liaison, DEQ
William Creal, DEQ
Phil Argiroff, DEQ
Lois Marinangeli, DEQ

Michigan Department of Environmental Quality
Water Resources Division

Boilerplate Report

Section 401 of Part 2, Article VII, of 2014 PA 252
Additional Funding for the Aquatic Nuisance Control Program
Fiscal Year 2015 Annual Report

The excerpt below is from Section 401 of Part 2, Article VII, of 2014 PA 252, for the Water Resources Division (WRD).

WATER RESOURCES DIVISION

Sec. 401. From the funds appropriated in part 1 for surface water, not less than \$700,000.00 and 5.0 FTEs shall be allocated to support the permit review program within the aquatic nuisance control program. The department shall report to the house and senate appropriations subcommittees on environmental quality and the house and senate fiscal agencies by September 30, 2015 on the use of this funding and the number of permit applications processed by the program in 2015.

The following addresses the requirements included above:

- The WRD spent approximately \$763,415 to support 5.5 FTEs for aquatic nuisance control (ANC) activities during fiscal year (FY) 2015.
- The ANC Program issues permits for the application of chemicals to lakes and ponds in order to control nuisance aquatic plants. ANC Program staff ensures that there is a balance between the property owner's ability to use the resource and the Department of Environmental Quality's need to protect the natural resources.
- During FY 2015, ANC Program staff issued approximately 1,630 permits, issued 970 certificates of coverage, and processed approximately 67 amendments.
- The majority of permits issued under Part 33, Aquatic Nuisance Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, address some type of aquatic invasive species (nonnative); for example, Eurasian Watermilfoil and Starry Stonewort.
- Approximately 30 percent of the permits and 45 percent of the certificates of coverage were issued as 3-year permits, as provided for in Part 33.
- During FY 2015, ANC Program staff spent a significant amount of time implementing and ensuring consistency with Part 33.

Michigan Department of Environmental Quality
Water Resources Division

Boilerplate Report

Section 402 of Part 2, Article VII, of 2014 PA 252
Funding for the Water Quality and Use Initiative
Fiscal Year 2015 Annual Report

Water: A Michigan Priority

Water is one of Michigan's greatest assets. It sets the cultural, social, ecological, and economic context for the state and the region. The management of Michigan's water resources is a shared responsibility among many organizations, businesses, agencies, and individuals. This was recognized in the fiscal year (FY) 2015 budget process with the Water Quality and Use Initiative. This report summarizes the activities that resulted in FY 2015 as a result of this initiative, as required in Section 402 of the Department of Environmental Quality's (DEQ) budget.

The excerpt below is from Section 402 of Part 2, Article VII, of 2014 PA 252, for the Water Resources Division (WRD).

WATER RESOURCES DIVISION

Sec. 402. From the funds appropriated in part 1 for the water quality and use initiative/general line item, the department shall produce a report detailing a comprehensive plan for the use of the water quality and use initiative funding appropriated in part 1 and identifying the amount of expenditures for specific programs made from the water quality and use initiative/general line item, the real-time beach monitoring program line item, and the wetlands program line item. The report shall be submitted to the chairpersons of the senate and house of representatives appropriations subcommittees on environmental quality and the senate and house fiscal agencies by September 30, 2015.

In summary, the WRD allocated and spent the funding for the Water Quality and Use Initiative (\$1,624,000) and the Wetlands Program (\$1,000,000) for staff to perform and complete the activities detailed below. In addition, the Real-Time Beach Monitoring funding (\$500,000) was used to supply laboratories around the state with equipment and supplies to enable this monitoring as detailed below.

Water Strategy

Michigan's Water Strategy (Strategy) was released for public review and comment in June 2015. Public comment continued through August 2015. This Strategy provides specific goals and desired outcomes over a 30-year vision, with recommended actions to achieve these goals. Often the connectivity between land and water is not adequately addressed in state policy. Additionally, the coordination of water-related investments in infrastructure, monitoring, and technologies could be more strategic. The Strategy recognizes four interconnected pieces: the cultural meaning of the Great Lakes and water to Michiganders, the ecological function of water, the social context of water in communities, and the economic benefit water brings. The Strategy will be finalized in FY 2016.

Real-Time Beach Monitoring

Michigan is the first state to monitor its beaches statewide with rapid testing equipment producing same-day results. Testing previously relied on culture methods that require 18-24 hours to produce results. The rapid testing equipment uses a new method called quantitative polymerase chain reaction (QPCR) to measure deoxyribonucleic acid (DNA) and produces results in four hours or less. DNA testing will identify fecal contamination quicker and will help us reopen beaches faster when test results show they are safe for swimming. The DEQ provided \$496,000 worth of equipment at 10 new labs to test beaches using the QPCR method (see detail below). In addition, local health departments received \$443,000 in grants to monitor 231 Great Lakes beaches, including 155 that will be tested with the QPCR method and 132 inland lake beaches that will be tested with the QPCR method. Monitoring results are posted on the DEQ's BeachGuard Web site at: <http://www.deq.state.mi.us/beach/>.

Water quality standards for beach monitoring rely on *E. coli* results from culture methods. During the transition to QPCR methods, beach monitoring will use results from both culture and QPCR methods to build correlations and comparisons for future water quality standards for the new method.

The DEQ provided \$30,000 to Michigan State University to provide specialized training for the new labs on the use of the QPCR method and beach water testing. Hands-on training started in the spring of 2015 with additional site visits throughout the summer. The DEQ is hosting the 15th Annual Great Lakes Beach Association Joint Conference at the Grand Traverse Resort in Acme, Michigan, October 28-30, 2015, where QPCR labs will meet again to present and discuss the statewide beach testing results of the QPCR method. More information on the conference is available at: http://www.michigan.gov/deq/0,4561,7-135-3308_3333_4169_21606-345563--,00.html.

Funding (\$496,000) provided by the DEQ for equipment to ten labs:

1. Central Michigan District Health Department; \$48,000
2. Chippewa County Health Department in cooperation with the Environmental Analysis Laboratory at Lake Superior State University; \$42,000
3. District Health Department #10 in cooperation with Cadillac Wastewater Treatment Plant; \$50,000
4. Genesee County Health Department; \$50,000
5. Health Department of Northwest Michigan; \$47,000
6. Kalamazoo County Health and Community Services; \$39,000
7. Marquette Area Wastewater Treatment Facility; \$51,000
8. Public Health Muskegon County in cooperation with the Robert B. Annis Water Resources Institute at Grand Valley State University; \$39,000
9. Oakland County Health Division; \$91,000
10. Saginaw County Department of Public Health; \$39,000

Labs testing inland lake beaches:

1. Genesee County Health Department
2. Oakland County Health Division
3. Saginaw County Department of Public Health

Labs testing Great Lakes beaches and inland lakes beaches (Great Lakes beaches listed):

1. Assurance Water Lab of the Central Michigan District Health Department (beaches in Arenac County)
 - a. Singing Bridge Beach
 - b. Whitney
 - c. Twining Road Beach
 - d. Bessinger Road
 - e. Cemetery Beach
 - f. Arenac County Park

2. Chippewa County Health Department in cooperation with the Environmental Analysis Laboratory at Lake Superior State University (beaches in Chippewa County)
 - a. Sherman Park
 - b. Sugar Island
 - c. Four Mile
 - d. Brimley State Park

3. Cadillac Wastewater Treatment Plant (beaches in Mason, Manistee, Oceana, and Wexford Counties)
 - a. Arcadia Park
 - b. Bar Lake Outlet
 - c. Fifth Avenue Beach
 - d. First Street Beach
 - e. Magoon Creek
 - f. Onekama Township Beach
 - g. Orchard Beach State Park
 - h. Pierport Township Beach
 - i. Sundling Park
 - j. Bass Lake Outlet Beach
 - k. Buttersville Park Beach
 - l. Ludington State Park
 - m. South Pier Beach
 - n. South Summit Beach
 - o. Sterns Park Beach
 - p. Summit Township Beach
 - q. Claybanks Township Park
 - r. Lighthouse Beach at Silver Lake State Park
 - s. Mears State Park
 - t. Stony Lake Channel
 - u. Whiskey Creek

4. Health Department of Northwest Michigan (31 beaches in Antrim, Charlevoix, and Emmet Counties and the beaches listed below)
 - a. Kiwanis Beach, Mackinac County
 - b. Lake Michigan - US 2 Roadside East of Brevort, Mackinac County
 - c. Roadside Park Beach, Mackinac County
 - d. Rogers Beach in Schoolcraft, Schoolcraft County
 - e. Acme Bayside Park, Grand Traverse County
 - f. Traverse City State Park, Grand Traverse County
 - g. East Bay Park, Grand Traverse County
 - h. Bryant Park, Grand Traverse County
 - i. Clinch Park, Grand Traverse County
 - j. West End Beach, Grand Traverse County

- k. Greilickville Harbor Park, Leelanau County
 - l. Suttons Bay South Shore, Leelanau County
 - m. Suttons Bay Marina Park, Leelanau County
 - n. Northport, Leelanau County
 - o. Empire, Leelanau County
 - p. Frankfort, Benzie County
5. Kalamazoo County Health and Community Services Lab (beaches in Berrien and Van Buren Counties)
- a. Cherry Beach
 - b. Grand Beach
 - c. Hagar Township Park
 - d. Jean Klock Park
 - e. Lincoln Township Park
 - f. Lions Park
 - g. Michiana Village
 - h. New Buffalo City
 - i. Rocky Gap
 - j. Silver Beach
 - k. Tiscornia Park
 - l. Union Pier - Townline Road
 - m. Warren Dunes Beach
 - n. Weko Beach
 - o. Covert Township Park
 - p. South Haven North Beach
 - q. South Haven South Beach
 - r. Van Buren State Park
6. Marquette Wastewater Treatment Plant (city of Marquette and surrounding areas)
- a. Marquette South Beach
 - b. McCartys Cove
 - c. North Beach
 - d. North of Picnic Rocks
 - e. Houghton City Beach
 - f. Hancock Beach
 - g. Chassell Beach
 - h. L'Anse Beach
7. Public Health Muskegon County, in cooperation with the Robert B. Annis Water Resources Institute at Grand Valley State University (Muskegon County)
- a. Bronson/Kruse Park
 - b. Duck Lake Channel Beach
 - c. Lake Harbor Park
 - d. Lighthouse/Sylvan Beach
 - e. Medbury Park Beach
 - f. Meinert County Park
 - g. Muskegon State Park
 - h. Muskegon State Park-North Campground Beach
 - i. Old Channel Beach
 - j. PJ Hoffmaster State Park - Campground
 - k. PJ Hoffmaster State Park - Public Beach Area
 - l. Pere Marquette Park
 - m. Pioneer County Park

Labs already using QPCR methods to test Great Lakes beaches:

1. HEART Lab at Huron-Clinton Metropolitan Authority Lake St. Clair Metropark Beach (Macomb and St. Clair Counties)
 - a. Lake St. Clair Metropark Beach
 - b. New Baltimore Beach
 - c. St. Clair Shores Memorial Park Beach
 - d. Belle Isle Beach
 - e. Chrysler Beach
 - f. Conger-Lighthouse
 - g. Holland
 - h. Lakeside
 - i. Keewahdin
 - j. Fort Gratiot County Park
 - k. Lakeport State Park

2. Saginaw Valley State University (Iosco, Bay, and Huron Counties)
 - a. Bay City Recreation Area
 - b. South Linwood Beach
 - c. Wenona Beach
 - d. East Tawas City Park
 - e. Tawas City Park
 - f. Gateway Park
 - g. Bird Creek County Park
 - h. Caseville County Park
 - i. Harbor Beach City Park
 - j. Jenks County Park
 - k. Lighthouse County Park
 - l. McGraw County Park
 - m. Oak Beach County Park
 - n. Philip County Park
 - o. Port Crescent State Park - Camping Area
 - p. Port Crescent State Park - Day Use
 - q. Sleeper State Park
 - r. Thompson Park
 - s. Veteran's Park

3. Hope College (Allegan County beaches)
 - a. Casco Township Park
 - b. Douglas Beach
 - c. Laketown Township Beach
 - d. Oval Beach
 - e. Pier Cove Beach
 - f. Saugatuck Dunes State Park

Improve Michigan's Water Quality

Address raw sewage discharges:

Discharges of raw sewage are a significant threat to public health and the environment. Such discharges are generally categorized as untreated combined sewer overflows (CSO), which are discharges from sewer systems that convey both sanitary and storm water flows; and sanitary sewer overflows (SSO), which are discharges from sewer systems that convey sanitary flows only. Michigan's CSO program, established in 1994, continues to require CSO communities to

adopt programs aimed at correcting untreated CSO discharges, either through separation or treatment. Michigan's SSO elimination program, based on the Michigan SSO Policy that was adopted in 2002, requires separate sanitary systems to eliminate discharges during storm events below a specified threshold. Both of these programs are implemented via enforcement and/or permit schedules and involve significant wastewater infrastructure improvements.

During FY 2015, the DEQ continued to lead the effort in eliminating the public health threat from raw sewage discharges into Michigan waters. The DEQ's State Revolving Fund Final Intended Use Plan for FY 2015 allocated nearly \$295 million for wastewater infrastructure projects, much of which is intended for projects addressing existing CSO and SSO projects and the remainder for wastewater infrastructure projects that will further aid in prevention of raw sewage discharges. Large-scale sewer separation projects continue in the cities of Grand Rapids, Port Huron, Manistee, St. Joseph, Sault Ste. Marie, Wakefield, and Manistique. The cities of Detroit, Dearborn, and others continue work to provide retention treatment basins for control of untreated CSOs to the Rouge River Watershed in southeast Michigan. The DEQ is continuing its 2013 initiative to promote programs aimed at pursuing and achieving sustainable wastewater infrastructure. Such programs are referred to as asset management programs and will also aid in prevention of raw sewage discharges. Thus far in FY 2015, the DEQ issued 21 National Pollutant Discharge Elimination System (NPDES) permits to wastewater systems that included an asset management program requirement (to date, 45 such permits have been issued). To help communities prepare for this initiative, the Stormwater, Asset Management, and Wastewater (SAW) Program was created in January 2013 from legislation enacted to establish grants for asset management plan development, among other planning efforts, as well as state-funded loans to construct projects identified in asset management plans. In October 2014, \$94 million in SAW grants and loans were awarded to over 117 recipients.

Make NPDES permits current and effective:

The DEQ has worked to reduce the backlog of individual NPDES permits in FY 2015. Ideally, NPDES permits in Michigan are reissued for a five-year period on a rotating basis by watershed so that compliance inspection, receiving water monitoring, and permitting activities can take place in a coordinated, cost-effective, and environmentally protective manner. It is also critical that NPDES permits are reissued in the proper watershed year so that they contain the most up-to-date conditions. Though an expired permit is administratively extended, the regulated community also desires a permit that is up to date and effective for the longest time permissible under state and federal rules.

During the last FY, the DEQ was able to hire and train two new NPDES permit writers. The best estimate is that the percent of individual NPDES permits that are current and effective as of September 30, 2015, will increase from 65 percent to 78 percent. With a strengthened effort and expected use of *The Four Disciplines of Execution* process in FY 2016, it is expected that 90 percent of individual NPDES permits will be current and effective as of September 30, 2016, thus better meeting the expectations of our regulated community and the United States Environmental Protection Agency (USEPA).

Build a mobile and efficient workforce:

Michigan has deployed an integrated software solution called MiWaters that provides tracking, management, inquiry, and reporting of the WRD program data. MiWaters has consolidated 25 legacy databases into 1 Web-based system easily accessible through the Internet by both our regulated stakeholders and the public. MiWaters corrects and improves on the issues found with the legacy databases, some of which were 30 years old. Over 600,000 regulatory sites and 1.4 million documents were involved in the initial deployment of MiWaters and are accessible by any computer with an Internet connection including mobile tablet platforms. Concurrent with the

deployment of this new information system, the WRD has deployed 130 new Microsoft Surface Pro 3 tablets to field staff allowing them real-time access to information necessary to process permit applications, issue permits, conduct inspections, and provide compliance assistance to our regulated community.

Ensure Best Management of Michigan's Water Resources

Maintain state management:

Michigan has successfully maintained authority over regulating our wetlands, lakes, and streams. On July 7, 2013, Governor Rick Snyder signed into law 2013 PA 98 (Act 98), that amended Part 301, Inland Lakes and Streams; and Part 303, Wetlands Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

Thirty years ago, Michigan was authorized to administer the federal Clean Water Act Section 404 Program; however, to maintain that authorization Michigan's statutes and rules must remain consistent with the federal program. The USEPA began reviewing the changes enacted in Act 98 in the fall of 2013 to determine if Michigan's program still remains consistent with the federal program. To date, the USEPA has not issued any findings and Michigan is continuing to administer the Section 404 Program through our current laws and rules.

On August 28, 2015, the new federal Clean Water Rule took effect in most of the nation. The new rule defines what waters are covered by the federal Clean Water Act. The rule has been controversial and many lawsuits have been filed nationally challenging the rule. Although there is great uncertainty across the nation about how the new federal rule will be implemented, Michigan's programs have remained constant.

The DEQ has processed over 3,100 permit applications during FY 2015 under Michigan's Section 404 Program and will continue to process permits while the federal courts review the new federal rule. As the federal agencies, the courts, and congress sort out the legal challenges to the new federal rule, the DEQ will be monitoring their actions for any potential effects to Michigan's programs and will keep interested citizens and lawmakers informed.

Conduct agricultural wetlands outreach:

The WRD has established the Agricultural Assistance Program that is intended to provide education and outreach to the agricultural community on the wetland regulatory process. Two WRD staff are the specific points of contact for this program to provide consistent and responsive customer service to the agriculture community on these issues. Through this program, WRD staff has:

- Given presentations and attended meetings of numerous agricultural stakeholder groups, as well as provided free preapplication meetings and wetland identifications for farmers.
- Fielded numerous phone calls from farmers and agricultural agency representatives with questions regarding wetland regulations and agricultural. For specific project questions, discussions with district staff are facilitated. Agricultural Assistance Program staff has also met with farmers on-site on numerous occasions to provide regulatory assistance.
- Continued to work closely with the Michigan Association of County Drain Commissioners (MACDC) and their agents to develop educational materials, improve communication, and streamline permitting with the goal of increased compliance with state and federal law. Many informational materials have been developed jointly by the WRD and agents for MACDC for presentation and distribution at MACDC conferences, regional meetings, and workshops.

- Continued to engage representatives from agriculture stakeholders, including Michigan Farm Bureau, to address the recent legislative changes to Michigan's program, discuss future direction of the program, and streamline the permitting process.

Control upstream sediment to reduce dredging need:

The WRD's Nonpoint Source (NPS) Program continues to develop and implement watershed management plans to reduce sediment loads to waters of the state. Reducing sediment loads to waters of the state may help to reduce the volume of materials dredged from some of Michigan's harbors. The NPS Program provided financial or technical assistance to 24 watershed groups working to develop watershed management plans in FY 2015. A total of five plans were approved by the DEQ for implementation in FY 2015 and became eligible for Clean Michigan Initiative, Section 319, and Great Lakes Restoration Initiative implementation grants. In addition, NPS Program staff oversaw 44 grants to implement watershed management plans to reduce sediment and nutrient loads to waters of the state. These projects implemented 19 best management practices in FY 2015 resulting in 40,750 tons of sediment load reduction. Although reducing sediment loads to the surface waters of the state is important to alleviate environmental and economic impacts, the rapid rise in Great Lakes levels (more than 3 feet in Lakes Michigan and Huron since January 2013) has resulted in a greatly reduced demand for harbor maintenance dredging permits, from 311 in 2013 to less than 45 in 2015.

Refine Michigan's water use program:

In FY 2015, the DEQ and Department of Technology, Management and Budget made multiple enhancements to the Water Withdrawal Assessment Tool's user interface to improve the user interface's clarity and prevent accidental cancellation or modification of withdrawal registrations and site-specific review requests. The DEQ's Water Use Program staff actively participated in the Water Use Advisory Council, a stakeholder group appointed by DEQ Director Dan Wyant in 2013, and its work groups. The Water Use Advisory Council examined all aspects of the Water Use Program, including the models used by the Water Withdrawal Assessment Tool, environmental monitoring, protecting inland lakes, water conservation, and local water user groups. Staff from the Quality of Life (QOL) agencies developed an implementation plan for the 69 recommendations in the Water Use Advisory Council's December 2014 final report. Actions to address 21 of those recommendations have already been initiated. The QOL agencies plan to initiate work on an additional 8 recommendations within the next year, 12 recommendations within 5 years, and 5 recommendations will take more than 5 years to initiate provided that adequate resources are available; 18 of the recommendations dealing with water conservation will be addressed through the implementation of the Water Strategy. The QOL agencies are assessing the staffing and budgetary resources necessary to fully implement the recommendations to improve the Water Use Program.

Develop a Groundwater Quality Monitoring Strategy (GQMS) for Michigan:

The GQMS is being developed with the purpose of enhancing our understanding of where groundwater resources are, what monitoring has been done, what monitoring is underway, where monitoring gaps are, and how this strategically compares with what other states have developed for groundwater quality monitoring. We have entered a contract with Western Michigan University to develop the GQMS for the state and work has recently begun. The DEQ is also working to coordinate the GQMS with the United States Geological Survey that is working on a groundwater project with a similar purpose.

Collaborate efficiently with Michigan universities:

The WRD awarded a grant to the University of Michigan's Water Center to enhance collaboration on important water quality issues between Michigan's QOL agencies and researchers at postsecondary educational institutions. The project has been underway for almost one year and has two main products. First, an online networking tool is being developed as a way to increase communication and facilitate collaboration between the agencies and postsecondary educational institutions on topics related to water quality. Second, the first annual State of Michigan Water Collaboration Workshop will be held on October 9, 2015, at the Ralph A. MacMullan Conference Center in Roscommon, Michigan. This workshop will provide opportunities to network with personnel from the QOL agencies and water quality-focused researchers from postsecondary institutions. Featuring plenary and breakout sessions, the workshop will:

- Highlight the major water-related programs in the state and their pressing knowledge gaps and needs.
- Identify opportunities for the QOL agencies and Michigan's colleges and universities to collaboratively address knowledge gaps and research needs.
- Kick-off and strengthen networking opportunities among state agency personnel and water-related faculty from Michigan's colleges and universities.
- Encourage continuing interactions among participants through the development and roll-out of a virtual, statewide water collaboration networking tool.

Implement the Aquatic Invasive Species State Management Plan:

Michigan continues to be under assault by aquatic invasive species and has significantly invested in this effort with the FY 2015 budget increase of \$5 million in state funds to supplement the federal funds that have sustained this initiative in recent years. The majority of this funding was distributed to local partners to assist in the prevention and management of invasive species, primarily through the Cooperative Invasive Species Management Areas, which are locally driven initiatives. These actions will provide a major improvement in implementing the Aquatic Invasive Species State Management Plan.