

## Michigan State Wetland Program Summary



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### Section A. Quick View

#### **Description of State's Wetlands**

Wetlands in Michigan consist of lowland conifers, lowland hardwoods, palustrine forested, shrub/scrub wetland, persistent and non-persistent emergent wetland, and unvegetated flats. Wooded and scrub/shrub wetlands are the most common types and Emergent wetlands make up a relatively small percentage of the State's total wetlands.

#### **State Definition of Wetlands**

Resources and Environmental Protection Act, 1994 PA 451 (Part 303) Protection of the Resource, as amended, defines a wetland as "land characterized by the presence of water at a frequency and duration sufficient to support, and that under normal circumstances does support, wetland vegetation or aquatic life, and is commonly referred to as a bog, swamp, or marsh." The definition applies to public and private lands regardless of zoning or ownership. Michigan's definition has been found by the U.S. Environmental Protection Agency (EPA) to be consistent with the Section 404 definition of wetlands.

*Note:* Wetlands are not explicitly included in the state's statutory definition of "waters of the state," they have been included explicitly in the definition of "surface waters of the state" in the administrative rules on water quality standards.

#### **Historic Wetland Loss/Gain**

Please check with Michigan for new updated numbers from a state study. This section will be updated in the near future. The numbers below are from the US Fish and Wildlife Service study by Dahl (1989)

Original Wetland Acreage	Remaining Wetland Acreage	Acreage Lost	% Lost
11,200,000	5,583,400	5,616,600	50%

## Primary State Wetlands Webpage

Michigan Department of Environmental Quality Wetland Program Webpage  
<http://www.mi.gov/wetlands/>

## State Wetland Program Plan

Michigan has been undertaking a strategic planning process with stakeholders to develop a state wetland program plan (WPP). The Plan is currently under review by EPA. Additionally, the state has had a Wetland Conservation Strategy (1995) that served to guide state wetland activities for more than 10 years. In 2011, the state developed a wetland program plan that was not approved by EPA but has been used for internal guidance.

## No Net Loss/Net Gain Goal

Michigan has no net loss goals in both regulation and as a statewide administrative approach. Michigan's State Wetland Conservation Plan outlines both short- and long-term goals for the achievement of no net loss of wetlands. Long-term objectives, with no specific time frame, include the restoration of 500,000 acres (ten percent of historic losses). In addition, Administrative rules for the Wetland Protection Part of the Natural Resources and Environmental Protection Act (NREPA) state that, "An applicant shall provide mitigation to assure that, upon completion, there will be no net loss of wetlands." (See R 281.925 (7)).

## State Resources for Wetland Work – Estimated (2014)

State Name	Core element #1: Regulation	Core Element #2: Monitoring and Assessment	Core Element #3: Wetland Water Quality Standards	Core Element #4: Voluntary Wetland Restoration
<b>Agency</b>	MDEQ*	MDEQ*	Incorporated into regulation	MDEQ
<b>Source(s)</b>	Fees, state funding, interagency partnerships			319 funding, state grants and loans program (integrated with federal programs)
<b>Amount</b>	Unknown	Unknown	Unknown	Unknown
<b>Staffing</b>	"A lot"	"Less than a lot"	Unknown	Unknown
<b>Agency</b>				MDNR
<b>Source(s)</b>				State wildlife funds
<b>Amount</b>				Unknown
<b>Staffing</b>				Unknown
<b>Agency</b>				MI Department of Agriculture and Rural Development
<b>Source(s)</b>				State funding
<b>Amount</b>				Unknown
<b>Staffing</b>				Unknown

\*Some lab and other work is contracted out to non-state entities.

## State Permitting Fees

State Permitting Fee	State Name
Yes/No	YES
Amount (range)	\$50-\$2,000
Agency	MDEQ Wetlands, Lakes and Stream Unit

## Innovative Features

Michigan was the first state to assume the Clean Water Act §404 program.

## Models and Templates

- Michigan has a mature wetland mitigation program
- The state's permitting process is very streamlined. One application and fee provides processing for §401 certification, coastal zone, endangered species, and historic preservation sites
- Michigan Rapid Assessment Method ([http://www.michigan.gov/deq/0,4561,7-135-3313\\_3687-240071--,00.html](http://www.michigan.gov/deq/0,4561,7-135-3313_3687-240071--,00.html))

## Section B. Regulation

### How are Wetlands Regulated in Michigan?

Michigan's wetland regulatory authority is based primarily on a statewide wetland permit program defined in the Wetlands Protection Part of the State's environmental code. This law was originally passed in 1979 as the *Goemaere-Anderson Wetland Protection Act*, and was later codified in its current form as Part 303, Wetlands Protection, of the *Natural Resources and Environmental Protection Act*, 1994 PA 451, as amended (NREPA). Michigan Department of Environmental Quality (MDEQ) Water Resources Division houses the §404 program, including permitting, outreach and technical support, enforcement, research, and restoration activities related to wetlands. The DEQ has adopted administrative rules which provide clarification and guidance on interpreting Part 303. The Wetland Protection Part provides broad regulation of Michigan's wetlands as described in the following sections of this summary, and was incorporated by reference and made part of the Section 404 Program for the State of Michigan at the time of program assumption.

While Michigan has been delegated the authority to administer CWA §404, the agency also shares jurisdiction with the U.S. Army Corps of Engineers ("Corps") in some areas. The Corps has retained CWA §404 jurisdiction over traditionally navigable waters, including the Great Lakes, connecting channels, and other waters connected to the Great Lakes where navigational conditions are maintained (essentially, those waters covered by §10 of the Rivers and Harbors Act). The Corps also retains jurisdiction in wetlands directly adjacent to these waters. In these areas, both a Corps and a MDEQ permit are required for activities in wetlands.

The scope of jurisdiction under Michigan's law is generally comparable with federal law; however, the underlying authority differs from federal law, being based on land management authorities rather than the commerce clause. Under Part 303, the Michigan DEQ regulates:

- All wetlands that are connected to an inland lake or pond, river or stream, or one of the Great Lakes, regardless of size. The connection may be any permanent or intermittent surface water connection.

- All wetlands that are within 500 feet of an inland lake, pond, river or stream, or within 1000 feet of the Great Lakes, regardless of size. These wetlands are assumed to have a groundwater connection with the associated waterbodies.
- Wetlands greater than 5 acres in size that are not connected to other waterbodies by surface or groundwater.
- Any wetland that is not otherwise regulated, if the DEQ has determined that the wetland is “essential to the preservation of the natural resources of the state” and has so notified the property owner.

Permits issued by the DEQ under Michigan’s 404 Program are state, not federal, permits and as such Section 401 certification is not required. However, a project which would result in a violation of Michigan’s water quality standards would not meet the permit criteria under state statutes. Under the Wetland Protection Part, a project which violated water quality standards would not be considered otherwise lawful, and therefore not in the public interest. In addition, the Section 404 (b)(1) Guidelines prohibit issuance of a permit which would result in a violation of state water quality standards (40 CFR §230.10), and the DEQ is prohibited from issuing a Section 404 permit not in compliance with the 404(b)(1) Guidelines. For applications under the jurisdiction of Detroit District Corps for purposes of Section 10/Section 404, issuance of a state permit is generally taken to represent Section 401 certification.

Some coastal wetlands receive further protection under the *Shorelands Protection and Management Provisions* of NREPA. The state has a special statute that designates certain wetlands as environmental areas with special protections. These have a higher standard of approval with restricted activities (uplands are also regulated). To be designated, environmental areas (EAs) must be deemed “necessary for the preservation and maintenance of fish and wildlife,” and be “within 1,000 feet landward of the ordinary high water mark of lands adjacent to waters affected by levels of the Great Lakes.” EAs are designed to protect the natural condition of the area and limit or prohibit human presence

A number of other state laws (Parts of the NREPA) compliment the basic wetland permit program. These include programs which regulate dredge and fill activities in inland lakes and streams and the Great Lakes; the state’s floodplain regulatory authority; and water pollution control regulations including state water quality standards.

**Wetland Delineation**

Delineation Guidance	Yes	No	Detail
Use State’s Own Method		X	
Use Corps’ 87 Manual and Regional Supplement	X		
Other (Please describe)		X	

**Evaluation Methodology**

The state has developed a Michigan Rapid Assessment Tool (MiRAM). The assessment tool was updated in 2010. Michigan is currently testing to see if it correlates with the state's Index of Biotic Integrity (IBI). The state's universities have played an important role in this development process. Work on IBIs has been conducted primarily by research staff at Michigan State University and Grand Valley State University. The state has an extensive set of IBIs for coastal and inland wetlands. Michigan staff also use the State's *Floristic Quality Assessment for the State of Michigan* (2nd Edition), developed by the DNR and revised in 2001.

### **Exempted Activities**

Michigan regulates drainage activities which are normally exempt under the Clean Water Act. Although exemptions have been developed to be consistent with federal law, the state's language is different, drafted to meet state-specific laws. Exemptions include recreational activities, specified agricultural activities (see "Special Provision for Agriculture and Forestry" below), construction of temporary forestry and mining roads; maintenance or improvement of public roads within the right of way; maintenance, repair, or operation of oil or gas pipelines and power lines; operation or maintenance of dikes and levees; and construction of iron and copper mining tailing basins and water storage areas. However, exemptions are not unlimited; the landowner is generally required to minimize impacts, and in some instances to comply with best management practices (e.g. activities not exempt under state post-construction requirements that would be at the federal level). Exemption under one Part of the NREPA does not exempt an activity from requirements of other Parts. County drainage commissioners also regulate drainage activities in the state.

### **Special Provisions for Agriculture and Forestry**

State provisions are comparable to federal provisions. Part 303 exempts certain activities associated with farming, horticulture, silviculture, lumbering, and ranching from permit requirements. These exemptions in general parallel Section 404, and are typically associated with the ongoing use of a wetland area for planting, cultivation, and harvesting of various crops. Part 303 also provides exemptions for certain related activities, such as construction and maintenance of farm or stock ponds, drain maintenance necessary for agricultural production, and construction and maintenance of farm and forest roads. These exemptions are very specific. Other related activities such as land clearing and leveling, construction of dikes or cranberry beds, or construction of barns, greenhouses, warehouses, or other structures, are not exempt activities under the Wetlands Protection Part.

### **Penalties and Enforcement**

DEQ Water Resources Division staff has primary responsibility for enforcement under Michigan's state administered Section 404 Program. However, this does not preclude the federal agencies from initiating enforcement actions under Section 404 at their discretion.

The Inland Lakes and Streams Part authorizes civil fines up to \$5,000.00 per day, and criminal penalties of up to \$10,000.00. Under a civil action, the court may enforce compliance with the Part, restrain violations of the Part, and order restoration. In 1993, the Inland Lakes and Streams Part was amended to provide for the issuance of appearance tickets for minor offenses which do not require restoration. A person who commits a minor offense is guilty of a misdemeanor, punishable by a fine of not more than \$500.00.

Enforcement provisions of the Wetland Protection Part are similar, except that a civil penalty of up to \$10,000.00 per day is authorized. In addition, criminal penalties for a knowing violation include fines

of up to \$25,000.00 per day, imprisonment of not more than 1 year, or both. A repeat violation is a felony, and is punishable by a fine of not more than \$50,000.00 per day, or imprisonment of not more than 2 years, or both.

**Permit Tracking**

*Tracking permit actions:* DEQ Water Resources Division permit applications are entered into a computerized tracking system, known as the Coastal and Inland Waters Permit Information System (CIWPIS). CIWPIS includes database files for resources of special interest (e.g. known locations of threatened or endangered species, conservation easements, sites of past violations, hazardous waste sites, and similar categories) by town, range and section. These special interests are identified at the time of permit logging. All subsequent permit actions are tracked in the CIWPIS system. An on-line version of this tracking system allows the permit applicant, or any member of the general public, to search for permits or permit applications by geographic area, or to check on the status of a pending application. CIWPIS is linked to additional databases supporting detailed records for mitigation sites, and for wetland areas held under permanent conservation easements. The state is working on moving to a combined GIS database called “My Waters” for tracking permit and compliance data.

*Tracking compliance and enforcement actions.* The DEQ Water Resources Division maintains a separate system for tracking compliance and enforcement actions. All complaints received by the DEQ (including violations reported by staff) are entered into this system, and tracked until resolved. This system assists field staff in monitoring the status of enforcement actions, which may proceed over a period of months. It also supports coordination among the DEQ Water Resources Division and law enforcement staff in the DEQ Office of Criminal Investigations and the Law Enforcement Division of DNR.

**State General Permit (statewide vs. regional coverage)**

Permit Coverage	Yes	No	Detail (Type of Permit)
Regional General Permit		X	
Statewide General Permit		X	

**Description:** As a delegated state, Michigan has issued its own set of “General Permit and Minor Project Categories for Minor Activities in Wetlands in the State of Michigan. Details of these permits can be found at: [http://www.michigan.gov/documents/deq/General\\_Permit\\_Categories\\_360925\\_7.pdf](http://www.michigan.gov/documents/deq/General_Permit_Categories_360925_7.pdf). The state has three tiers of permits, including: 1) general permits, 2) minor projects, and 3) individual permits.

**Assumption of 404 Powers**

Assumption Status	Yes	No	Detail
Assumed	X		Michigan Assumed the 404 program in ____.
Working Toward Assumption	---		
Explored Assumption	---		

**Detail:** The State of Michigan’s 404 Program was approved by the Regional Administrator of EPA in accordance with the requirements of Section 404(h) of the Clean Water Act in August of 1984. With this approval, Michigan became the first state to assume administration of the Section 404

Program. During the ensuing twenty years, the state-federal partnership which developed has allowed Michigan to operate a highly effective and efficient permit program. Michigan's Section 404 Program is administered by the Michigan DEQ (formerly part of the Michigan DNR). The state processes approximately 5,000 permit applications per year through this program, funded in part by permit fees but primarily by state general funds. DEQ staff also have primary responsibility for compliance and enforcement under the state 404 Program.

### **Joint permitting**

The Clean Water Act limits state assumption of Section 404 authority in "traditionally navigable waters." The Detroit District Corps retains Section 404 jurisdiction in these waters, which are listed in a 1983 *Memorandum of Agreement* between the DEQ and the Corps. Corps jurisdiction includes the Great Lakes, connecting channels (such as the Detroit River), and rivermouth areas upstream to the limits of the traditional navigational channel or the Great Lakes ordinary high water mark. Under the 1983 MOA, the DEQ and the Corps may issue a Joint Public Notice for projects over which the Corps retains Section 404 jurisdiction; however separate state and federal permits are required. Joint Public Notices are prepared by the Corps. Due to the time constraints associated with state statutes, the DEQ frequently proceeds with issuance of a separate public notice to assure compliance with state statutory review periods.

### **Special Area Management Plans and Advanced Identification Plans**

None. However, the state is currently in the process of updating the Michigan Lake Management Plan.

### **Buffer Protections**

None.

### **Mitigation Policy**

The state has extensive guidelines, policies, and regulations that guide wetland mitigation. Under Part 303, Wetlands Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, the MDEQ may impose conditions on a permit for a use or development if the conditions are designed to remove an impairment to the wetland benefits, to mitigate the impact of a discharge of fill material, or to otherwise improve the water quality. The purpose of compensatory wetland mitigation, commonly referred to as wetland mitigation, is the replacement of unavoidably lost wetland resources with created or restored wetlands, with the goal of replacing as fully as possible the functions and public benefits of the lost wetland.

In accordance with the administrative rules for Part 303, the MDEQ can consider wetland mitigation only after all of the following conditions are met:

- The wetland impacts are otherwise permissible under sections 30302 and 30311 of the act.
- No feasible and prudent alternative to avoid wetland impacts exists.
- An applicant has used all practical means to minimize impacts to wetlands. This may include the permanent protection of wetlands on the site not directly impacted by the proposed activity.

The permittee must provide wetland mitigation to assure that, upon completion, there will be no net loss of wetlands. Wetland mitigation must be of a similar ecological type as the impacted wetland

wherever feasible and practical. If the replacement wetland is of a similar ecological type as the impacted wetland, then the following ratio of acres of wetland mitigation for each acre of permitted wetland loss must be provided:

- Restoration or creation of 5.0 acres of wetland mitigation for 1.0 acre of permitted impact on wetland types that are rare or imperiled on a statewide basis.
- Restoration or creation of 2.0 acres of wetland mitigation for 1.0 acre of permitted impact on forested wetland types, coastal wetlands not included under (1), and wetlands that border upon inland lakes.
- Restoration or creation of 1.5 acres of wetland mitigation for 1.0 acre of permitted impact on all other wetland types.
- 10 acres of wetland mitigation for 1.0 acre of impact in situations where the mitigation is in the form of preservation of existing wetland.

The MDEQ may increase the ratio if the replacement wetland is of a different ecological type than the impacted wetland. If the MDEQ determines that an adjustment would be beneficial to the wetland resources, then the MDEQ may increase or decrease the number of acres of wetland mitigation by 20 percent. The MDEQ must double the required ratios if an after-the-fact permit is issued. For more information about wetland mitigation in Michigan, refer to the following state website:

<http://www.michigan.gov/wetlands/>

### **Mitigation Database**

Permitted wetland impacts and mitigation requirements are recorded in the DEQ Water Resources Division permit tracking system, CIPWIS (the Coastal and Water Permit Information System). This system provides for simple accounting of acreage gains and losses. In addition, this system is linked to a more detailed database established to record and track detailed information during the long term development of specific mitigation sites, as well as to a separate database designed to record and track conservation easements associated with mitigation sites.

The state is working on moving to a combined GIS database called “My Waters” for tracking permit and compliance data.

### **Section C. Monitoring and Assessment**

#### **Agency Responsible for Wetland Monitoring and Assessment**

Michigan has a formal wetland monitoring program led by the Michigan Department of Environmental Quality (MDEQ). MDEQ works with numerous other agencies and organizations to implement the recently-developed Michigan Wetland Monitoring and Assessment Strategy.

#### **Mapping/Inventory**

The state conducts its own state map updates, the latest of which was completed in 2006. This work focuses on status and trends of wetlands in the state and is planned to be conducted approximately every ten years.

#### **State Wetland Mapping Public Portal**

Michigan DEQ Wetland Maps Viewer

<http://www.mcgi.state.mi.us/wetlands/>

**Wetland Classification and Assessment**

Michigan does not have its own formal state classification system; the Cowardin system is used for descriptive purposes. The Michigan Natural Features Inventory (MNFI) includes wetlands in its classification of natural community types. A description of each ecological community type, and its state and global rank based on relative rarity, are provided on the MNFI web page at [www.msue.msu.edu/mnfi](http://www.msue.msu.edu/mnfi). The Great Lakes Coastal Wetlands Consortium has also developed a specific classification system for its basin-wide inventory and tracking system (which is close to the Cowardin classification system). This inventory is expected to be available on-line in the near future at [www.glc.org/wetlands](http://www.glc.org/wetlands).

The state used the *Michigan Rapid Assessment Method for Wetlands* (MiRAM) to determine the "functional value" of a particular wetland and to assign a rating level to that wetland as compared to other wetlands. The goal of this rating system is to assess individual wetlands on an equal scale regardless of ecological type. MiRAM offers a relatively rapid assessment of wetland functions and values, but it is not intended to replace more detailed quantitative measures of ecosystem function, such as Indices of Biological Integrity (IBI), Floristic Quality Assessment (FQA), or other detailed ecological studies. The MiRAM evaluation contains two rating systems, a narrative rating and a quantitative rating. If the Wetland is not identified as having high functional value by the Narrative Rating, the Evaluator must complete the Quantitative Rating. The quantitative rating is designed to provide a numeric score that reflects the functional value of a Wetland, which includes a Wetland's ecological condition (integrity) and its potential to provide ecological and societal services (functions and values).

**Statewide Wetland Monitoring Plan**

MDEQ has worked with numerous other agencies and organizations to develop a Michigan Wetland Monitoring and Assessment Strategy. The state lists eight strategies with assessment at all three levels (landscape, reference and site-specific). The strategy defines long term goals, some of which depend on obtaining additional funding or resources. The state plans to have the plan online in the near future.

**Overall Wetland Gain and Loss Tracking System**

The state currently tracks regulatory and restoration work. As part of its status and trends work, the state believes it is critical to track overall wetland gain and loss.

**Wetland Monitoring and Assessment Characteristics**

Level	None	Level 1	Level 2	Level 3
<i>Michigan</i>		X	X	X

Type	None	IBI	Condition	Functional
<i>Michigan</i>		X	X	X

Frequency	None	Project Specific	Ongoing

Michigan		X	X
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**Participation in National Wetland Condition Assessment**

NWCA Study Type	Yes	No
National Study	X	
State Intensification Study	X	

**Description:** Michigan conducted a coastal intensification study that looked at coastal wetlands only. The study cannot be used to provide analysis on wetlands statewide.

**Section D. Water Quality Standards**

**Wetland and Water Quality Standards**

Type	None	Use Existing WQ Standards	In Process	Adopted	Future Direction
<i>Wetland-specific Designated Uses</i>		X			
<i>Narrative criteria in the standards to protect designated wetland uses</i>		X			
<i>Numeric criteria in the standards based on wetland type and location to protect the designated uses</i>	<i>(Although the state applies existing WQS to wetlands, none are used, as they aren't appropriate to wetlands)</i>	X			
<i>Anti-degradation policy includes wetlands</i>		X			

**Section E. Voluntary Wetland Restoration**

**Types of Wetland Restoration Work Funded by the State:**

Type of Work	YES	NO	Description
Fund Wetland Restoration (may include easement agreements)	X		
Private Land Restoration	X		
Public Land Restoration	X		
Technical Assistance	X		
Tax Incentives	X		Some landowners may obtain local and federal tax benefits by enrolling wetland acreage in the Farmland

			and Open Space Preservation Program, administered by the Michigan Department of Agriculture and Rural Development. Information is available on the MDA web page under farmland preservation at <a href="http://www.michigan.gov/mda">www.michigan.gov/mda</a>
Other		X	

**Detail:** The DEQ, DNR, and Agriculture have been active partners with federal agencies and non-governmental organizations in wetland restoration/incentive programs. Through 2014, the State of Michigan has contributed approximately \$10 million in state funding to wetland protection through the Conservation Reserve Enhancement Program (CREP), and the state’s Clean Michigan Initiative. These funds have been used to support voluntary wetland conservation practices by private landowners – primarily wetland restoration and enhancement - and to obtain permanent conservation easements over wetlands restored under state/federal conservation programs. In addition, the state has contributed staff time through all three agencies to provide technical assistance for landowners interested in wetland restoration programs.

**Voluntary Wetland Restoration Program Components**

Wetland Restoration Efforts	Nothing in the Works	Planning	In Progress	Mature/Complete
Program has a set of restoration goals				X
Coordinate with relevant agencies that outline restoration/protection goals and strategies and timeframes				X
Developed multi-agency body to coordinate restoration/protection efforts				X
Set restoration goals based on agency objectives and available information				X

**Description:** Michigan has a formal state voluntary wetland restoration program. The state’s program has a program coordinator and conducts a large amount of restoration through partnerships.

**Goals for Restoration Projects\***

Goal	Yes	No	Description
No Net Loss	X		
Reverse Loss/Net Gain	X		
Nonpoint Source Pollution (NPS)/WQ	X		
Total Maximum Daily Load (TMDLs)	X		
Habitat	X		
Coastal Protection	X		

Floodwater Protection	X		
Groundwater		X	
Other (please describe)		X	

**Landowner Guides and Handbooks to Assist with Voluntary Wetland Restoration Efforts**

Michigan DEQ has a brochure about voluntary restoration, as well as a manual for how to apply for permits.

**Section F. Innovative and/or Highly Effective Education and Outreach**

- Michigan is working with local governments through an outreach program that focuses on the protection of wetlands through zoning and ordinances.
- The state also provides an agriculture assistance program designed to help farmers understand the wetland regulatory program and how it relates to agricultural practices.

**Section G. Climate Change and Wetlands**

Michigan does work on climate change issues and has focused on adaptation strategies that incorporate adaptation BMPs into the regulatory program and encouraging other state programs to incorporate wetlands and climate change into their programs. The state has a whole BMP package to this end. Michigan contracted with the Association of State Wetland Managers (ASWM) to write its original climate change plan (2012), which can be downloaded from:

[http://www.michigan.gov/documents/deg/Michigan\\_Wetlands\\_and\\_Climate\\_Change\\_Report\\_Final\\_Final\\_403251\\_7.pdf](http://www.michigan.gov/documents/deg/Michigan_Wetlands_and_Climate_Change_Report_Final_Final_403251_7.pdf).

The state’s primary focus is on community resiliency. Specific climate change areas of focus include invasive species (one of the biggest threats from climate change), planning for resiliency in wetland protection, wildlife corridors, flood management, and how to better build mitigation sites in the face of a changing climate. Climate change is taken into consideration for lots of development activities. Permits consider climate change as they go, including stream stability, sediment loading and habitat.

**Section H. Integration**

Entity/Program Area	Yes/No	Description of the Connection	Contact for Follow-up
NPDES/NPS/Stormwater	YES	Informal integration; same management chain; work together on some projects, but process itself is not yet integrated; Work closely with the NPS program; connect landscape level functional assessment with wetland restoration and preservation priorities	
303(d)	YES	Work together some on listings	

305(b) reporting on wetlands	YES		
Total Maximum Daily Load (TMDLs)	YES	Working with state staff to encourage wetland restoration as a way to reach TMDL goals (nutrients, etc.); use landscape functional analysis	
Climate Change/ Resiliency	YES		
Land Use /Watershed planning	YES	The MDEQ has been successful in establishing working relationships with numerous watershed groups and organizations to promote the concept of restoring wetlands to address watershed impairments and improve water quality; the wetland program has staff whose primary job it is to promote wetlands in watershed planning with local groups	
Flood/Hazard Mitigation	YES	Fully integrated; comprehensive floodplain statute integrating with other (one letter in county, can require cut in compensation)	
Coastal Work	YES	Fully integrated; Share coastal funding; coastal zone certification as part of permitting; Sea grant administers the coastal program, but comments on permits	
Wildlife Action Plan	YES		
Statewide Comprehensive Outdoor Recreation Plan (SCORP)	Unknown		
Other – Transportation	YES	MDEQ has an MOU with MDOT to provide services on project planning and resource impacts. Deal with MDOT and County Road Commissioners – process is integrated “from cradle to grave”	

**State Wetland Program Contact and Other Relevant Contacts**

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**State Wetland Program Development Continuum**

Continuum Stage	Core Element 1: Regulation	Core Element 2: Monitoring & Assessment	Core Element 3: Wetland Water Quality Standards	Core Element 4: Voluntary Restoration
Mature Stage	X (Assumed)			X
Initial Implementation Stage		X		
Development Stage			X	
Early Stage				

**Section J. Useful Websites**

**State Government Programs**

1. Department of Environmental Quality

a) Wetlands Protection

[http://www.michigan.gov/deq/0,4561,7-135-3313\\_3687---,00.html](http://www.michigan.gov/deq/0,4561,7-135-3313_3687---,00.html)

i. Wetland Local Assistance Pilot Program

[http://www.michigan.gov/deq/0,4561,7-135-3313\\_3687-85561--,00.html](http://www.michigan.gov/deq/0,4561,7-135-3313_3687-85561--,00.html)

ii. Great Lakes Shoreline Management

[http://www.michigan.gov/deq/0,4561,7-135-3313\\_3687-70142--,00.html](http://www.michigan.gov/deq/0,4561,7-135-3313_3687-70142--,00.html)

iii. State and Federal Wetland Regulations

[http://www.michigan.gov/deq/0,4561,7-135-3313\\_3687-10801--,00.html](http://www.michigan.gov/deq/0,4561,7-135-3313_3687-10801--,00.html)

iv. Local Wetland Regulations

[http://www.michigan.gov/deq/0,4561,7-135-3313\\_3687-24312--,00.html](http://www.michigan.gov/deq/0,4561,7-135-3313_3687-24312--,00.html)

v. Wetland Monitoring Program

[http://www.michigan.gov/deq/0,4561,7-135-3313\\_3687-10364--,00.html](http://www.michigan.gov/deq/0,4561,7-135-3313_3687-10364--,00.html)

vi. Wetland Identification Program

[http://www.michigan.gov/deq/0,4561,7-135-3313\\_3687-10193--,00.html](http://www.michigan.gov/deq/0,4561,7-135-3313_3687-10193--,00.html)

b) Surface Water

i. Nonpoint Source Pollution

[http://www.michigan.gov/deq/0,4561,7-135-3313\\_3682\\_3714---,00.html](http://www.michigan.gov/deq/0,4561,7-135-3313_3682_3714---,00.html)

ii. Stormwater

[http://www.michigan.gov/deq/0,4561,7-135-3313\\_3682\\_3716---,00.html](http://www.michigan.gov/deq/0,4561,7-135-3313_3682_3716---,00.html)

c) Great Lakes

i. Aquatic Invasive Species

[http://www.michigan.gov/deq/0,4561,7-135-3313\\_3677\\_8314---,00.html](http://www.michigan.gov/deq/0,4561,7-135-3313_3677_8314---,00.html)

ii. Coastal Management

[http://www.michigan.gov/deq/0,1607,7-135-3313\\_3677\\_3696---,00.html](http://www.michigan.gov/deq/0,1607,7-135-3313_3677_3696---,00.html)

**Federal Government Programs**

1. USDA Natural Resource Conservation Service

Wetlands Reserve Program

<http://www.nrcs.usda.gov/wps/portal/nrcs/main/mi/programs/easements/wetlands/>

**Other Organization Wetland Programs**

2. The Michigan Wetlands Association

<http://www.miwetlands.org/>

3. Michigan Conservation Districts

<http://macd.org/wetlands.html>

4. Tip of the Mitt Watershed Council

<http://www.watershedcouncil.org/water%20resources/wetlands/>

**MINNESOTA**

**State Government Programs**

1. Board of Water & Soil Resources
  - a) Wetland Conservation Act  
<http://www.bwsr.state.mn.us/wetlands/wca/index.html>
  - b) Wetland Regulation  
<http://www.bwsr.state.mn.us/wetlands/regulation.html>
  - c) Wetland Banking Forms  
<http://www.bwsr.state.mn.us/wetlands/wetlandbanking/forms.html>
  - d) Wetland Delineation  
<http://www.bwsr.state.mn.us/wetlands/delineation/index.html>
  - e) Wetland Functional Assessment  
<http://www.bwsr.state.mn.us/wetlands/mnram/index.html>
  - f) Watershed Planning  
<http://www.bwsr.state.mn.us/planning/index.html#watershed>
  
2. Department of Natural Resources
  - a) Division of Ecological & Water Resources
    - i. Wetland Programs  
<http://www.dnr.state.mn.us/eco/wetlands/index.html>
    - ii. Wetland Status And Trends Monitoring Program  
[http://www.dnr.state.mn.us/eco/wetlands/wstm\\_prog.html](http://www.dnr.state.mn.us/eco/wetlands/wstm_prog.html)
    - iii. Wetland Conservation Plan  
<http://files.dnr.state.mn.us/eco/wetlands/wetland.pdf>
  
3. Minnesota Pollution Control Agency  
<http://www.pca.state.mn.us/index.php/water/water-types-and-programs/surface-water/wetlands/wetlands-in-minnesota.html>
  - a) Wetland Quality Status And Trends Monitoring  
<http://www.pca.state.mn.us/index.php/water/water-types-and-programs/surface-water/wetlands/wetland-quality-status-and-trends-monitoring.html>
  - b) Wetland monitoring and assessment  
<http://www.pca.state.mn.us/index.php/water/water-types-and-programs/surface-water/wetlands/wetland-monitoring-and-assessment.html>
  
4. Department of Agriculture
  - a) Water Protection  
<http://www.mda.state.mn.us/protecting/waterprotection.aspx>
  - b) Conservation  
<http://www.mda.state.mn.us/protecting/conservation.aspx>

### **Federal Government Programs**

1. USDA Natural Resource Conservation Service  
Wetlands Reserve Program  
<http://www.nrcs.usda.gov/wps/portal/nrcs/main/mn/programs/easements/wetlands/>

### **Other Organization Wetland Programs**

1. Minnesota Wetland Professionals Association  
<http://www.mnwetlandprofessionals.org/>
2. University of Minnesota: Wetland Delineator Certification Program  
<http://www.mnwetlands.umn.edu/>
3. Wetland Health Evaluation Program  
<http://www.mnwhep.org/>