

SECTION ONE – ENVIRONMENTAL REGULATIONS

CHAPTER 8: Activities at or Near the Land/Water Interface

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Purpose and Applicability of Regulations

Manufacturers often conduct activities at or near locations where the land meets the water, often referred to as the land/water interface. Many construction activities conducted in or near wetlands, ponds, inland lakes, streams, floodplains, Great Lakes, sand dunes, or other such environmental features are regulated by the state and require authorization by the Michigan Department of Environmental Quality (DEQ) prior to completion. Review of this chapter may be beneficial even if there are no site improvements currently under consideration in order to ensure that you are complying with state and federal laws regarding land/water interface resources.



Agencies and Their Laws and Rules

The DEQ, Water Resources Division (WRD), administers several parts of the Natural Resources and Environmental Protection Act, Public Act 451 of 1994, as amended (Act 451), that regulate activities that are on, within, or involve any of the following land/water features:

- A 100-year floodplain or floodway (Part 31)
- A stream, river, ditch, drain, channel, or canal (Part 301).
- An inland lake (Part 301)
- Land change activities that result in the creation or alteration of a canal, ditch, lagoon, pond, or lake within 500 feet of an existing inland lake or stream (Part 301).
- A wetland (Part 303).
- A dam (Part 315).
- A Great Lake (Part 325).
- High-risk erosion areas, critical dune areas, and environmental areas in coastal counties (parts 323 and 353).

The U.S. Army Corps of Engineers (USACE) also regulates some of the above activities at the federal level if they are located within a navigable water identified in Section 10 of the federal Rivers and Harbors Act and wetlands directly adjacent to these waters. To simplify the permit process for Michigan's residents, the WRD has developed a "[MDEQ/USACE - Joint Permit Application](#)" process with the USACE to jointly regulate activities at or near the land/water interface (Chapter 8.9).

The WRD also administers several other Parts of Act 451 that require a separate permitting process:

- Aquatic Nuisance Control (Part 33 of Act 451): regulates herbicide or pesticide application to lakes or ponds. This includes water treatment ponds for cooling or settling or ponds equipped with fountains for aesthetic purposes.
- Soil Erosion and Sedimentation Control (Part 91 of Act 451): requires a permit for all earth changes disturbing one or more acres, or for any size earth change within 500 feet of a lake or stream. This statute authorizes county and local enforcing agencies to issue the permits. The authorized permitting agencies for each county are available at www.michigan.gov/soilerosion. Authorized agencies have inspectors certified by the DEQ. Information on becoming a certified Soil Erosion and Sedimentation Control inspector is available on line at: www.michigan.gov/documents/deq/deq-oea-faq-wrd-sesc-sw-certification_348141_7.pdf.
- Earth changes of one or more acres also require federal NPDES permit coverage as described in Chapter 3.2.3.b
- Large Quantity Water Withdrawal (Part 327 of Act 451): This statute defines a large quantity water withdrawal as 70 gallons or more of total pump capacity and offers a tool to determine if your project requires a permit from the WRD. This is addressed more fully in Chapter 9.3.

8.1 Introduction

Historically the “MDEQ/USACE - Joint Permit Application” was used for activities regulated by the parts of Act 451 summarized in Chapter 8.2 through 8.10. Permit applicants would complete only the portions of the application applicable to their proposed activities. The DEQ is converting to electronic submittal for this form, through the new online permitting and compliance system called MiWaters. The Joint Permit Application may be submitted online through MiWaters. Required attachments and fee payment will also be handled electronically. Information on MiWaters is found in Chapter 3.1.1, or go directly to the MiWaters homepage at <https://miwaters.deq.state.mi.us> and then “about.”

The screenshot shows a complex form with multiple sections. Key sections include:

- Applicant and Agent Information:** Fields for Client/Applicant name, mailing address, contact phone, and email.
- Project Location Information:** Fields for project address, zip code, latitude, and longitude.
- Project Description:** A large section with numerous checkboxes for project types (e.g., wetland, stream, dam) and project locations (e.g., wetland, stream, dam).

Pre-application meetings for proposed impacts to inland lakes, streams, wetlands, and critical dune areas are available upon request. This pre-application meeting with district permit staff ensures that a complete and accurate application is submitted that avoids and/or minimizes potential impacts and proposes mitigation when resource impacts are unavoidable. There is a fee for the pre-application meeting, with the exception of in-office meetings on single-family residential lots less than 1 acre size. See the online pre-application meeting form for a fee schedule.

The WRD district offices review permit applications, conduct site inspections, and issue permits for regulated activities covered on the DEQ/USACE - Joint Permit Application. Technical assistance and permit review negotiations conducted by field staff minimize negative impacts to natural resources from new development. District staff may make a site inspection, collect comments, or ask for modifications to the proposal. It may take ninety days or more to receive a decision on a permit application. District offices also respond to complaints and conduct compliance activities. District staff can answer questions regarding the application, MiWaters, and regulations.



Help is available online to assist you in submitting a complete MDEQ/USACE - Joint Permit Application. Go to www.michigan.gov/jointpermit for more information.

8.2 Part 31 of Act 451: Water Resources Protection, Floodplain Regulatory Authority

A Part 31 permit is required for any occupation, construction, filling, or grade change within the 100-year floodplain of a river, stream, or drain with a drainage area of two square miles or more. Bridges and culverts are considered an occupation of the floodplain, as are activities that involve storage of materials in the floodplain. A 100-year flood has a one (1) percent chance of occurring or being exceeded in any given year. These activities are regulated by a permit system with the purpose of ensuring that the channels and floodways are kept clear and uninhabited and that

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structures placed outside the floodway are properly protected from flood damage. The floodway includes the stream channel and that portion of the floodplain that is required to convey the flow of floodwater. Structures that are placed outside of the floodway portion of the floodplain must be properly protected from flood damage. This can be accomplished by elevating structures above the 100-year floodplain elevation or by designing non-residential structures to be water tight without human intervention. The state Building Code requires residential structures to have the lowest floor elevation at least one foot above the 100-year floodplain elevation.

Flood Insurance Requirements

Many cities and townships within Michigan participate in the National Flood Insurance Program (NFIP). Those communities usually have a Flood Insurance Rate Map. If your site is located in the floodplain area (frequently designated as an “A Zone”), the requirements are that any new or substantially improved structure must have its first floor, including the basement, elevated above the 100-year floodplain elevation or flood-proofed to the elevation of the floodplain. Flood-proofing must be done in a manner that the building is water tight and able to withstand hydrostatic pressures up to the 100-year floodplain elevation.

8.3 Part 301 of Act 451: Inland Lakes and Streams

The intent of the Inland Lakes and Streams Protection Program is to protect the public trust in the inland waters of the state as well as the correlative rights of riparian owners. Activities that disturb land below the ordinary high water mark require a Part 301 permit. Examples of common projects that require a Part 301 permit are road and pedestrian crossings, utility crossings, stormwater outfalls, with or without streambank or streambed protection (riprap), stream relocations, and enclosures.



A Part 301 permit is required for the following activities below the ordinary high-water mark of all inland lakes and streams:

- Dredge or fill bottomlands.
- Construct, enlarge, extend, remove, or place a structure on bottomland.
- Construct, enlarge or expand a marina.
- Create, enlarge, or diminish an inland lake or stream.
- Structurally interfere with the natural flow of an inland lake or stream.
- Construct, dredge, commence, extend, or enlarge an artificial canal, ditch, lagoon, pond, lake, or similar waterway through which the purpose is ultimate connection with an existing inland lake or stream, or where any part of the artificial waterway is located within 500 feet of the ordinary high-water mark of an existing inland lake or stream.
- Connect any natural or artificially constructed waterway, canal, channel, ditch, lagoon, pond, lake, or wetland with an existing inland lake or stream for navigation or any other purpose.

Under Part 301, a stream is defined as a waterbody that has definite banks, a bed, and visible evidence of a continued occurrence of water. This Part does not include the Great Lakes, Lake St. Clair, or a lake or pond that has a surface area of less than 5 acres. An inland lake or stream can also be a natural or artificial feature, including drains or impoundments.

8.4 Part 303 of Act 451: Wetlands Protection

Part 303 is intended to protect the functions and values wetlands provide such as flood and storm control, wildlife habitat, clean subsurface water resources, pollution treatment, erosion control, nutrient cycling, and economic and educational services. The following activities are prohibited in wetlands unless a Part 303 permit has been obtained from the DEQ:



- Deposit or permit the placing of fill material in a wetland.
- Dredge, remove, or permit the removal of soil or minerals from a wetland.
- Construct, operate, or maintain any use or development in a wetland.
- Drain surface water from a wetland.

Regulated wetlands are defined in Part 303 and associated administrative rules. Part 303 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. In addition, wetlands regulated by the state are one of the following:

- Connected to, or located within 1,000 feet of, one of the Great Lakes or Lake St. Clair.
- Connected to, or located within 500 feet of, an inland lake, pond, river, or stream.
- Not connected to one of the Great Lakes or Lake St. Clair, or an inland lake, pond, stream, or river, but are more than 5 acres in size.
- Not connected to one of the Great Lakes or Lake St. Clair, or an inland lake, pond, stream, or river, and less than 5 acres in size, but the DEQ has determined that these wetlands are essential to the preservation of the state's natural resources and has notified the property owner.

Wetlands Identifications

While wetland inventory maps and other online tools are helpful in determining the potential for wetlands, an on-site investigation is required to identify wetlands on a property. The DEQ's WRD, Wetland Identification Program (WIP), is a fee-based program that offers two levels of service to identify wetland and upland areas on a property. For a Level 2 Identification, a Wetlands Specialist conducts an on-site review to determine the presence or absence of wetlands, and physically marks the wetland boundaries in the field. A Wetlands Specialist can also provide a Level 3 Identification, which is an on-site review to confirm specific wetland boundaries marked by a

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wetland consultant. Both levels of service include a letter and map from the DEQ summarizing the findings, which is guaranteed for a period of three years. Individuals interested in WIP services must submit a WIP application to the WRD, Wetlands, Lakes and Streams Unit. The WIP application and a fee calculator can be downloaded at www.michigan.gov/wetlands or you may call 517-284-5543.

8.5 Part 315 of Act 451: Dam Safety

Permits are required for dams with a “height” of six feet or more and have an impounded surface area of five acres or more at the design flood elevation. A permit is required to construct a new dam, enlarge an existing dam or impoundment, repair or alter a dam, remove a dam, abandon a dam, or reconstruct a failed dam. A licensed professional engineer must prepare, sign, and seal the construction plans, except for minor projects as defined in Part 315 or for projects by non-profit organizations under certain circumstances as specified in Part 315.

8.6 Part 323 of Act 451: Shorelands Protection and Management

This program provides for the designation and proper management of environmental areas, high-risk erosion areas, and flood risk areas along the Great Lakes shoreline. These areas include coastal wetlands and the adjacent uplands that provide habitat and nursery for fish and wildlife. Information about this program may be found online at www.michigan.gov/shorelands.

A Part 323 permit is required for any of the following activities in a designated Environmental Area:

- Dredging, filling, grading, or other alterations of the soil.
- Alteration of natural drainage, but not including the reasonable care and maintenance of established drainage.
- Alteration of vegetation utilized for the preservation and maintenance of fish or wildlife, including identified colonial bird nesting areas.
- Placement of permanent structures.

The following counties have designated Environmental Areas:

<i>Alcona</i>	<i>Bay</i>	<i>Emmet</i>	<i>Monroe</i>
<i>Alger</i>	<i>Charlevoix</i>	<i>Houghton</i>	<i>Tuscola</i>
<i>Alpena</i>	<i>Cheboygan</i>	<i>Huron</i>	<i>Wayne</i>
<i>Arenac</i>	<i>Chippewa</i>	<i>Mackinac</i>	
<i>Baraga</i>	<i>Delta</i>	<i>Marquette</i>	

A Part 323 permit is required for the construction, installation, or moving of a permanent structure on a parcel of land where any portion is a designated High-Risk Erosion Area. Examples include homes, porches, septic systems, additions, substantial improvements of existing structures, and out buildings. The [current counties](#) with designated High-Risk Erosion Areas include:

<i>Alger</i>	<i>Berrien</i>	<i>Houghton</i>	<i>Mackinac</i>	<i>Ottawa</i>
<i>Allegan</i>	<i>Chippewa</i>	<i>Huron</i>	<i>Manistee</i>	<i>St. Clair</i>
<i>Antrim</i>	<i>Delta</i>	<i>Iosco</i>	<i>Mason</i>	<i>Sanilac</i>
<i>Baraga</i>	<i>Emmet</i>	<i>Keweenaw</i>	<i>Menominee</i>	<i>Schoolcraft</i>
<i>Bay</i>	<i>Gogebic</i>	<i>Leelanau</i>	<i>Muskegon</i>	<i>Van Buren</i>
<i>Benzie</i>	<i>Grand Traverse</i>	<i>Luce</i>	<i>Oceana</i>	

The flood risk area program requires new construction in the 100- year floodplain of the Great Lakes to be elevated to prevent property damage. Forty-one coastal communities have designated flood risk areas mapped and participate in the National Flood Insurance Program, the federal program providing the sole source of flood insurance. These designated communities have approved zoning ordinances and regulate construction in flood risk shorelands locally. Permits are issued by the local unit of government. The WRD oversees performance and provides technical assistance.

8.7 Part 325 of Act 451: Great Lakes Submerged Lands

A permit is required for all filling, dredging, and placement of structures (e.g., docks, piers, pilings, etc.) below the ordinary high-water mark and on all upland channels extending landward of the ordinary high-water mark of the Great Lakes, according to the 1985 International Great Lakes Datum. Part 325 also provides for the sale, lease, or exchange of state-owned bottomlands of the Great Lakes. Information about the program may be found online at www.michigan.gov/deqgreatlakes.

8.8 Part 353 of Act 451: Sand Dunes Protection and Management

The most unique and fragile sand dunes along the Great Lakes shoreline in Michigan are defined in the “**Atlas of Critical Dune Areas**” prepared by the DNR. A permit is required for activities which significantly alter the physical characteristics of a Critical Dune Area or for a contour change in a Critical Dune Area. Those activities include the construction of a house or garage, building a road or driveway, installing a septic system, installing retaining walls, and sand removal to name a few. Program information may be found online at



www.michigan.gov/criticaldunes. The following counties have designated Critical Dune Areas:

<i>Alger</i>	<i>Charlevoix</i>	<i>Luce</i>	<i>Oceana</i>
<i>Allegan</i>	<i>Chippewa</i>	<i>Mackinac</i>	<i>Ottawa</i>
<i>Antrim</i>	<i>Emmet</i>	<i>Manistee</i>	<i>Schoolcraft</i>
<i>Benzie</i>	<i>Keweenaw</i>	<i>Mason</i>	<i>Van Buren</i>
<i>Berrien</i>	<i>Leelanau</i>	<i>Muskegon</i>	

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Islands that have designated Critical Dune Areas include:

Beaver Island

South Fox Island

North Manitou Island

North Fox Island

High Island

South Manitou Island

8.9 Section 404 of the Federal Clean Water Act of 1977 and Section 10 of the Rivers and Harbors Act of 1899

Section 404 of the Clean Water Act (CWA) prohibits the discharge of dredged or fill material into waters of the United States, including inland lakes and streams, the Great Lakes, and wetlands, without a permit. Michigan was the first of only two states currently authorized to administer the permit program for the federal government through state law. In most areas of the state, issuance of a permit by DEQ's WRD in accordance with the CWA requirements also authorizes a project under Section 404, and no separate federal permit is required. However, since Section 10 does not provide for similar transfer to states, the U.S. Army Corps of Engineers (USACE) retains Section 404 jurisdiction within those waters that are navigable waters of the U.S. and their adjacent wetlands. Therefore, authorization is also required from the USACE for projects in traditionally navigable waters including the Great Lakes, connecting channels, other waters connected to the Great Lakes where navigational conditions are maintained, and wetlands directly adjacent to these waters. Submittal of a single, completed DEQ/USACE - Joint Permit Application to the WRD ensures that Section 404 permit applications will be processed by all appropriate agencies, including projects that require both DEQ and USACE authorization.

The discharge of any fill materials must comply with state water quality standards consistent with Sections 301, 307, and 401 of the Clean Water Act.

8.10 Fees

The fees for permit applications vary significantly between the various parts of Act 451 and will vary within a Part depending on the scope of the project. General permit and minor project categories are described on the WRD's Web site: www.michigan.gov/jointpermit. A current fee schedule is available at the same Web site or by calling the appropriate district office for the county in which the project will be located. Fees for the soil erosion and sedimentation control permits are established by the county or local agency issuing the permit.

WHERE TO GO FOR HELP

SUBJECT: Permit application for chemical treatment to control nuisance aquatic plant or algae growth

CONTACT: DEQ, Water Resources Division
Lakes Michigan and Superior Permits Unit
517-284-5593
www.michigan.gov/anc

SUBJECT: Joint Permit application and instructions

CONTACT: The appropriate DEQ, Water Resources Division, District Office for the county in which the project will be located (see Appendix C).
www.michigan.gov/jointpermit

PUBLICATIONS: DEQ/USACE - Joint Permit Application (EQP 2731)
DEQ/USACE - Joint Permit Application Information Sheet

SUBJECT: MiWaters

CONTACT: <https://miwaters.deq.state.mi.us> then “About” and “Who to Contact”

PUBLICATIONS: MiWaters Videos at www.michigan.gov/miwaters

1. Overview
2. Establishing an Account
3. Maintaining Your Profile
4. [Inviting Another Person to View or Manage Your Site Information](#)
5. [Finding an Application or Request to Submit](#)
6. [Submitting an Application or Request](#)
7. [Viewing Information Related to Your Site](#)
8. [Submitting a Report Required by Your Permit](#)
9. [Submitting a Discharge Monitoring Report \(DMR\)](#)

Other MiWaters Training and Guidance at www.michigan.gov/miwaters

1. Submitting a Stormwater Pollution Prevention Plan (SWPPP) Annual Report (webinar recording, 70 minutes)
2. Introduction to MiWaters for Facilities covered Under NPDES Permit (webinar recording, 80 min)
3. Introduction to MiWaters for Facilities Under an Industrial Storm Water General Permit (webinar recording, 58 min)
4. Introduction to MiWaters for Aquatic Nuisance Control Permitting (webinar recording 61 min)
5. Introduction to MiWaters for Facilities Covered Under a DEQ CAFO Permit (webinar recording 91 min)
6. [Biosolids Annual Report: A Step by Step Guide to Submittal \(ppt\)](#)
7. [How to Complete a Floodplain Service Request](#)