



GOLDER

REGULATORY PERMITTING CONSIDERATIONS FOR NEW MINE SITES OR EXPANSIONS

Brian Huebner, PWS
Golder

**MICHIGAN AGGREGATES ASSOCIATION
2019 ANNUAL CONFERENCE**

Introduction

MDOT Michigan Aggregates Market Study of 2016

- Identified the need for aggregate resources for road construction.
- Key factors:
 - Geographic regions and availability of existing aggregate reserves
 - Difficulty of permitting associated with developing new reserves



MDEQ Environmental Compliance Guide for Nonmetallic Mineral Crushing Facilities Revised 2/2017

- Part 1. Air Quality Requirements
- Part 2. Water Quality and Withdrawal Requirements
- Part 3. Waste Management Requirements
- Part 4. Product Storage and Emergency Planning Requirements
- **Part 5. Land Development and Lake/Pond Creation Requirements**

MICHIGAN ENVIRONMENTAL COMPLIANCE GUIDE FOR NONMETALLIC MINERAL CRUSHING FACILITIES



Michigan Department of Environmental Quality
www.michigan.gov/deq • 800-662-9278

Revised 2/2017

Surface Issues

- Wetlands
- Waters (lakes and streams)
- Floodplains
- Threatened and Endangered (T/E) Species
- Soil Erosion (construction)
- Rare/Unique Habitat Types
- Cultural Resources



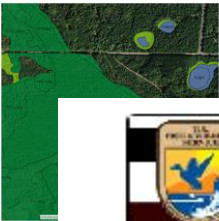
Screening Tools and Sources

- US Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI)
- MDEQ Wetland Maps (Wetland Viewer)
- US Department of Agriculture, Natural Resource Conservation Services (NRCS) Soil Survey Maps
- Aerial Imagery
- USFWS Information Planning and Consultation (IPaC) Tool
- Michigan Natural Features Inventory (MNFI)
- Federal Emergency Management Agency (FEMA) Flood Maps
- State Historic Preservation Office (SHPO) Archives (accessed at the SHPO office under direction of a licensed archaeologist)
- Qualified Consultants

Wetlands Mapper

The Wetlands mapper is designed to deliver easy-to-use, map like views of America's Wetland resources. It integrates digital map data along with other resource information to produce current information on the status, extent, characteristics and functions of wetlands, riparian, and deepwater habitats. The Wetland Mapper fulfills the U.S. Fish and Wildlife Service's strategic plan for the development, revision and dissemination of wetlands data and information to resource managers and the public. This information is intended to promote the understanding and conservation of wetland resources through discovery and education as well as to aid in resource management, research and decision making.

The wetlands displayed on the Wetlands Mapper show wetland type and extent using a biological definition of wetlands. There is no attempt to define the limits of proprietary jurisdiction of any Federal, State, or local government, or to establish the geographical scope of the regulatory programs of government agencies.



- 1

Please read the [Disclaimer](#), [Data Limitations](#), [Exclusions and Precautions](#), and the [Wetlands Geodatabase User Caution](#).
- 2

Refer to the following links for document instructions:
 - [Wetlands Mapper Documentation Manual \(PDF\)](#)
 - [VIDEO: How to find and use the U Service's Wetlands Mapper](#)

3

Open any Mapper by [clicking on the map icons below](#) (best viewed by maximizing your browser window):

Wetlands Mapper

NWI data desktop/mobile viewer; data last modified Oct 15, 2018.



Projects Mapper

Recent wetland data additions and active wetland mapping projects.



November 24, 2017

= Approximate Site Limits

Wetlands



Estuarine and Marine Deepwater



Estuarine and Marine Wetland



Freshwater Emergent Wetland



Freshwater Forested/Shrub Wetland



Freshwater Pond



Lake



Other



Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Map View

Search Tools

Share

Map Legend

Base Maps

About

Map Legend

Change what items you see on the map by using the checkboxes


Wetland Data

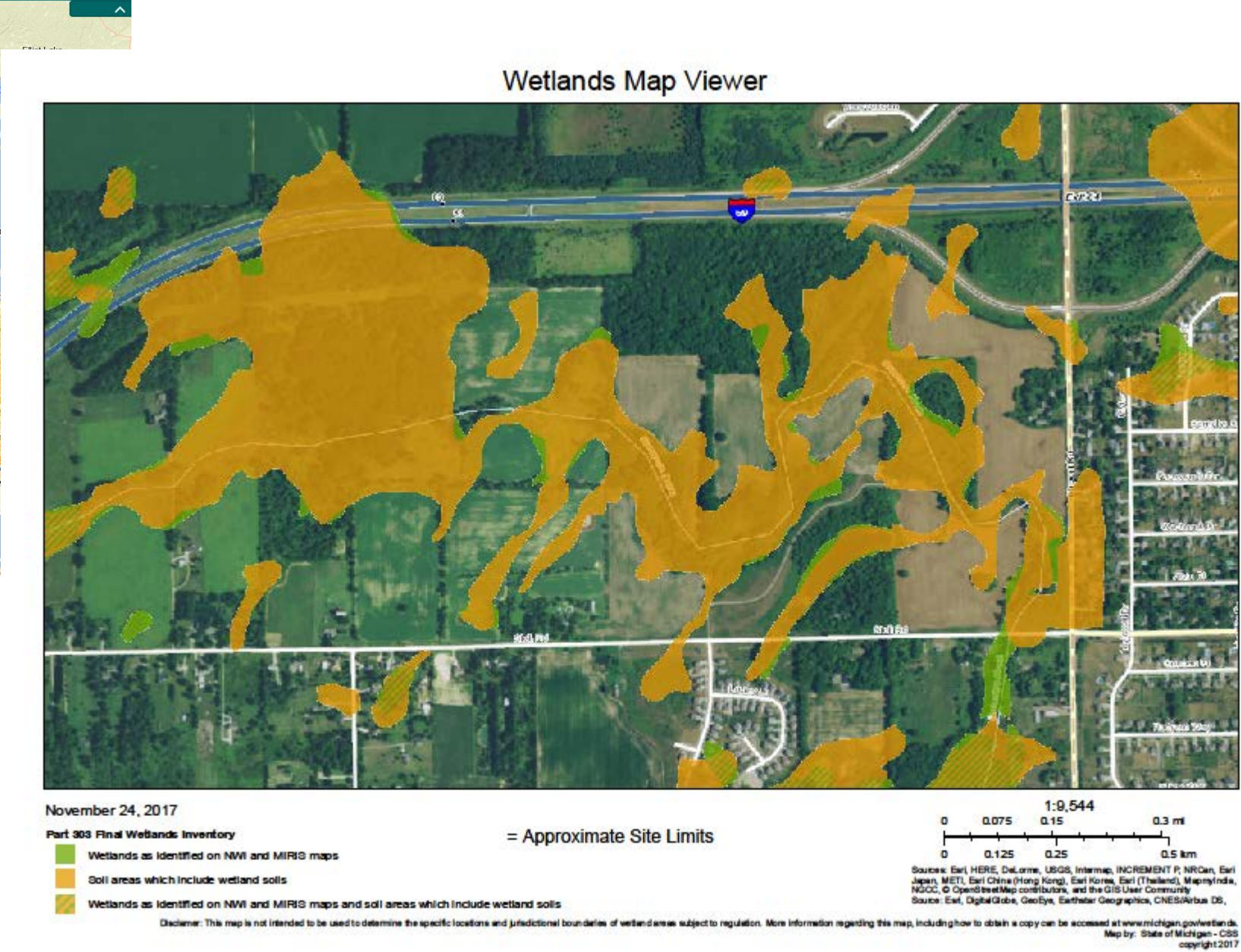
Stream Data

Coastal Data

Other Data

Functional Tool Layers





You are here: [Web Soil Survey Home](#)

Search

Browse by Subject

- [Soils Home](#)
- [National Cooperative Soil Survey \(NCSS\)](#)
- [Archived Soil Surveys](#)
- [Status Maps](#)
- [Official Soil Series Descriptions \(OSD\)](#)
- [Soil Series Extent Mapping Tool](#)
- [Geospatial Data Gateway](#)
- [eFOTG](#)
- [National Soil Characterization Data](#)
- [Soil Health](#)
- [Soil Geography](#)

START WSS

The simple yet powerful way to access and use soil data.

Welcome to Web Soil Survey (WSS)



Web Soil Survey (WSS) provides soil data and information produced by the National Cooperative Soil Survey. It is operated by the

USDA Natural Resources Conservation Service (NRCS) and provides access to the largest natural resource information system in the world. NRCS has soil maps and data available online for more than 95 percent of the nation's counties and anticipates having 100 percent in the near future. The site is updated and maintained online as the single authoritative source of soil survey information.

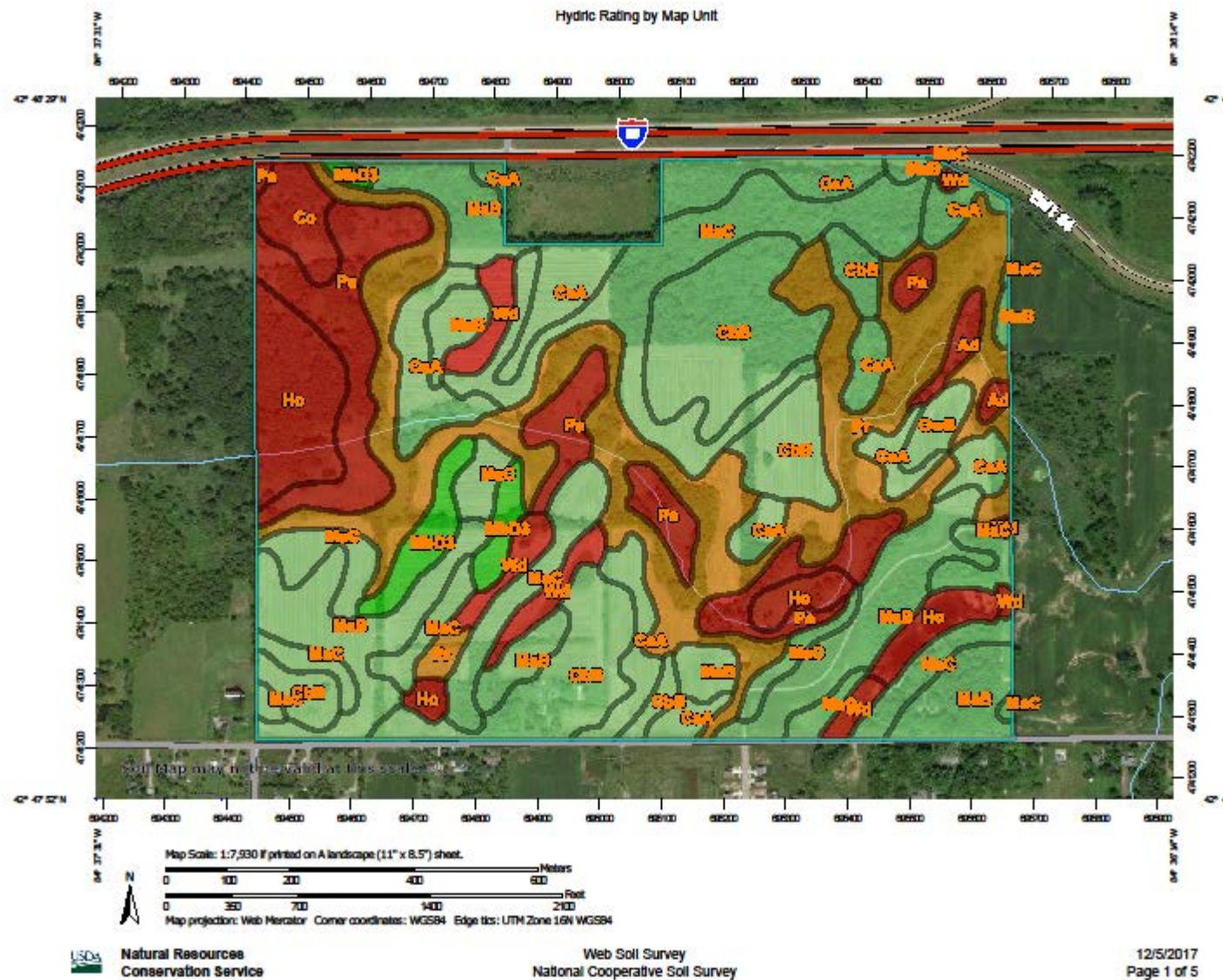
Soil surveys can be used for general farm, local, and wider area planning. Onsite investigation is needed in some cases, such as soil quality assessments and certain conservation and engineering applications. For more detailed information, contact your local

I Want To...

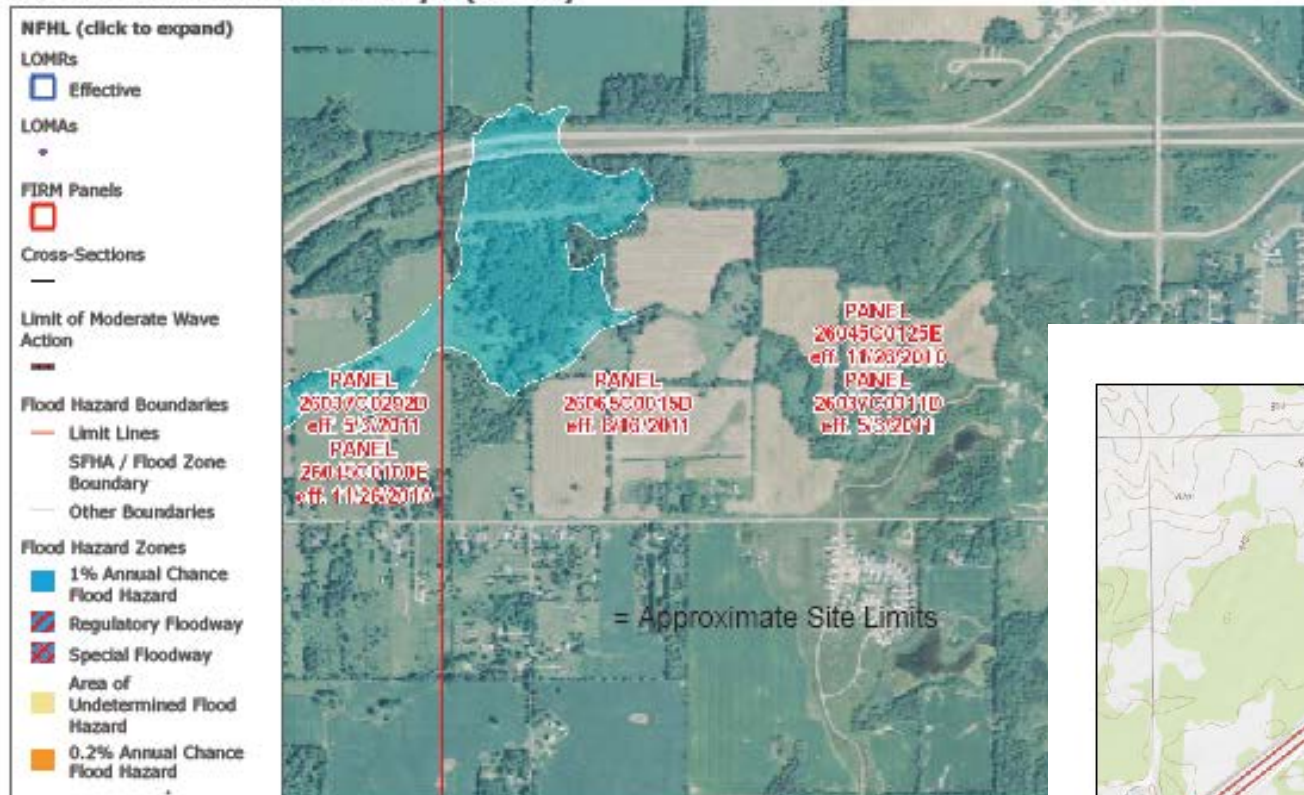
- [Start Web Soil Survey \(WSS\)](#)
- [Know Web Soil Survey Requirements](#)
- [Know Web Soil Survey operation hours](#)
- [Find what areas of the U.S. have soil data](#)
- [Find information by topic](#)
- [Know how to hyperlink from other documents to Web Soil Survey](#)
- [Know the SSURGO data structure](#)

Announcements/Events

- [Web Soil Survey 3.3 has been released!](#)



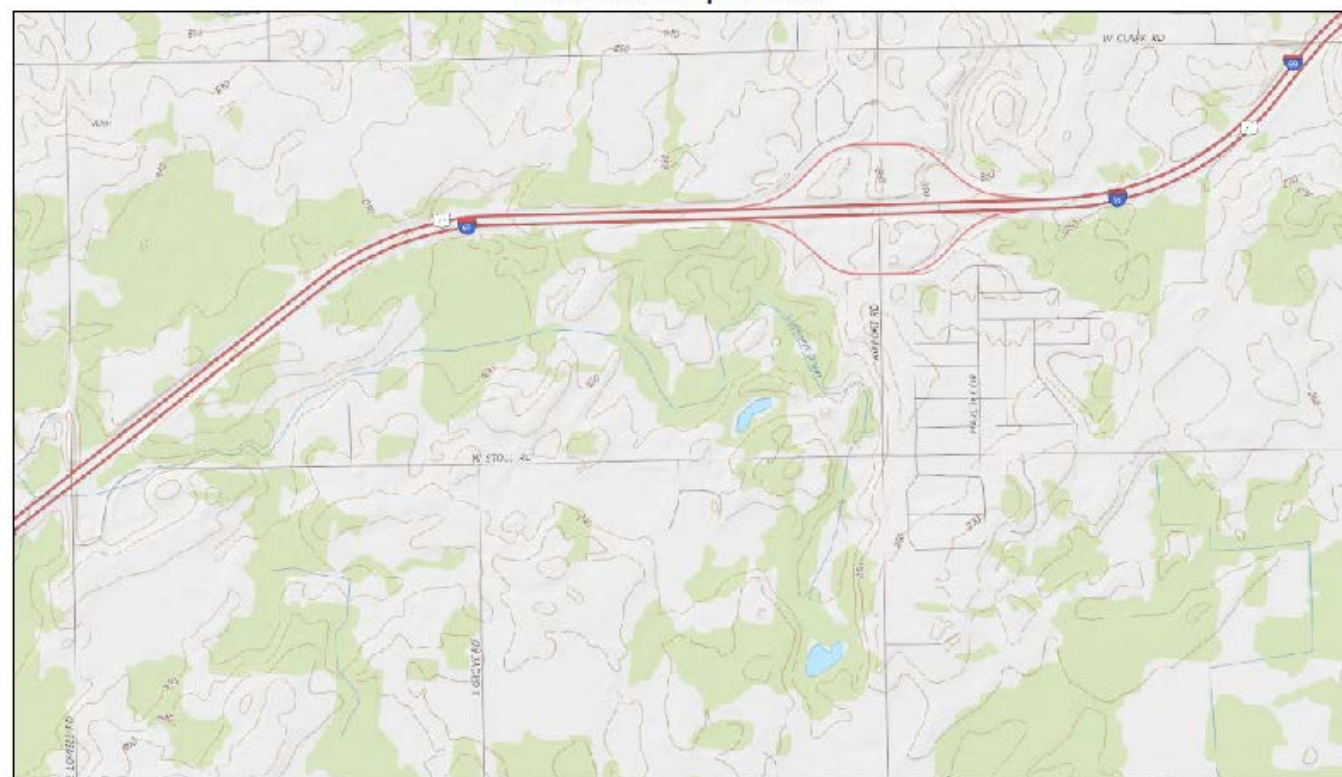
FEMA's National Flood Hazard Layer (Official)



Data from Flood Insurance Rate Maps (FIRMs) where available digitally. New NFHL FIRMette Print app available:
<http://tinyurl.com/j4xwp5e>

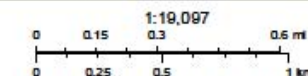
USGS The National Map: Orthoimagery | National Geospatial-Intelligence Agency (NGA); Delta State Univ
<http://tinyurl.com/j4xwp5e> Support: FEMAMapSpecialist@riskmapods.com | USGS T

Wetlands Map Viewer



December 5, 2017

= Approximate Site Limits



Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), Mapbox, NGA, OpenStreetMap contributors, and the GIS User Community
 USGS The National Map: National Boundaries Dataset, National Elevation

IPaC is a project planning tool which streamlines the USFWS environmental review process

GET STARTED

LOG IN

[Need an updated species list?](#)

IPaC: Resources

Page 1 of 14

IPaC Information for Planning and Consultation U.S. Fish & Wildlife Service

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Project information

NAME
Belle Isle

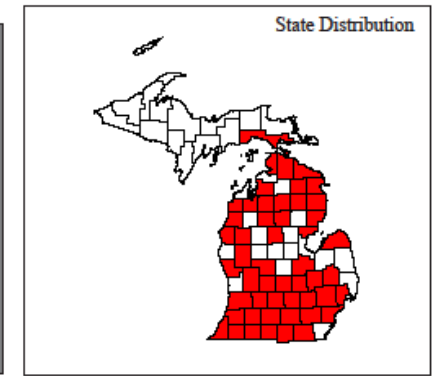


Local office

Michigan Ecological Services Field Office

(517) 351-2555

Sistrurus catenatus catenatus Rafinesque Eastern Massasauga



Best Survey Period

MICHIGAN STATE UNIVERSITY

Michigan Natural Features Inventory MSU Extension

Search MNFI...



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Services

Information Requests

MNFI provides a list and detailed information on all species, natural communities, and occurrences for single sites and also along corridors.

View

Rare Species Reviews

MNFI scientists provide reports at increasing levels of detail from review and evaluation of current information to field assessments, and full-scale inventories.

View

Special Data Requests

MNFI shares information and expertise through:

- Spatial Data
- Custom Searches

Yearly subscriptions to MNFI's on-line database are available upon request. Statewide section level information can be assessed at any time. Contact Rebecca Rogers for details at 517-284-6213

View

Natural Features Inventory

Field assessments for public and private projects range from a targeted species on one site to full inventories of state parks and entire counties.

View

Federal Permits and Approvals

Joint Permit Application (JPA). May be needed for site investigation (test excavation/borings) as well as mining activities.

- **Wetlands/Waters of the US** (Section 404 of the CWA)
 - Current rule (Obama 2015) is based on policy established through years of regulation and some key federal court cases (e.g., Riverside Bayview Homes, SWANCC, and Rapanos)
 - Trump 2018 Proposed Rule vs. Obama 2015 Rule
 - No ephemeral streams and fewer ditches would be covered
 - Fewer lakes and ponds would be covered
 - Fewer wetlands would be covered
- **Navigable Waters of the US** (Section 10 of the CWA)

Federal Permits and Approvals

US Army Corps of Engineers (USACE) Permits

- Nationwide Permit (NWP)
- Individual Permit (IP)
- Since Michigan has an agreement with the USEPA to assume the Section 404 program in Michigan, only wetlands associated with the Great Lakes or Section 10 waters require a separate permit from the USACE. Therefore, most inland aggregate mining projects will not require a permit from the USACE.

State Permits and Approvals

JPA. May be needed for site investigation (test excavation/borings) as well as mining activities.

- **Wetlands** (NREPA, Part 303: Wetlands Protection)
 - Recently approved amendments per SB 1211 (effective March 29, 2019)
 - Does not change much with respect to overall regulation of wetlands (what is/is not regulated)
 - Provides some exemptions for incidentally created wetlands
 - Wetlands within 500 feet of a new pond created as a result of commercial mining are not regulated solely based on proximity to the new pond
 - Includes several provisions that affect enforcement
- **Streams** (NREPA, Part 301: Inland Lakes and Streams)
- **Floodplains** (NREPA, Part 31: Water Resources Protection, Floodplain Regulatory Authority)
- **Dams** (NREPA, Part 315: Dam Safety)
- **Great Lakes Shoreland** (NREPA, Part 323: Shoreland Management and Protection)
- **Sand Dunes** (NREPA, Part 353: Sand Dunes Protection and Management)
- **Soil Erosion and Sedimentation Control** (NREPA, Part 91: Soil Erosion and Sedimentation Control). Administered by local authorized agent. Notice of Coverage (NOC) required under Part 31 for disturbed areas >5 acres).
- **Threatened and Endangered Species** (NREPA, Part 365: Endangered Species Protection)

State Permits and Approvals

MDEQ Permits

- General Permit (GP) (Parts 301, 303, and 325)
- Minor Project Category (MP) (Parts 301, 303, and 325)
- Individual Permit (IP)
- Submitted via MiWaters

On February 4, 2019, Governor Gretchen Whitmer signed an executive order to restructure and rename the MDEQ as the Department of Environment, Great Lakes and Energy (DEGLE). The order will take effect on April 7, 2019.

State Permits and Approvals

Other State Permits and Approvals

- Groundwater Discharge General Permit (for ponds with no surface water outlet created as a result of mining)
- Surface Water Discharge
 - NPDES General Permit
 - Most common GPs are Storm Water from Industrial Activities and Sand, Gravel, and Clay Mining (pit dewatering and process wastewater)
 - NPDES Individual Permit
 - For direct discharge into surface waters of the state. Site-specific permit based on discharge type, amount, contributing operations, and characteristics of the receiving water.

Local Permits and Approvals

Typically not needed for site investigation (test excavation/borings) activities.

- Mining/Special Use Permit/Zoning Permit
 - Site Plan (Site Plan approval may be a separate process)
 - Restoration/Reclamation Plan
 - Performance/Reclamation Bond
- Construction storm water/SESC (Part 91 permit administered by County Enforcement Agent [CEA] or Municipal Enforcement Agent [MEA])
 - Typical CEAs: Drain Commissioners Office, Public Works Department, Building Department, Health Department, Conservation District...
- MDEQ Certified Storm Water Operator (CSWO)
- Right-of-Way Permit (County Roads/access)

Non-governmental Organizations (NGOs)

No regulatory authority. However, they may have much influence over the permitting and approval process, depending on their level of support, how well organized they are, and what depth of resources they tap into.

- T/E species, rare/unique/particularly sensitive habitats, air, and water quality issues are typical regulatory targets for opposition

Permit Applications and Major Permit Elements

- Application Form(s)
- Project Plans with appropriate dimensions, details, cross sections, and calculations
- Hydraulic Study (for projects requiring excavation below the water table or potentially affecting nearby streams and/or wetlands)
- Narrative description of the project purpose and need. (e.g., provide quality aggregate materials for public and/or private uses such as roads, residential, commercial, and industrial purposes)
- Narrative or other concise presentation of alternatives considered to avoid or minimize impacts to regulated features and comparison to the proposed/desired project. Particularly critical when an IP is required.
 - Alternate project location(s) (other properties)
 - Alternate site layouts/excavation dimensions



Joint Permit Application

For Work in Inland Lakes and Streams, Great Lakes, Wetlands, Floodplains, Dams,
High Risk Erosion Areas and Critical Dune Areas
www.mi.gov/jointpermit

What is the purpose of the Joint Permit Application?

This Joint Permit Application was developed to facilitate the state and federal permit application process administered by the Michigan Department of Environmental Quality (DEQ) and the U.S. Army Corps of Engineers (USACE).

The Joint Per activities regu the following amended by I



U.S. Army Corps of Engineers www.hq.usace.army.mil

Michigan Department of Environmental Quality www.mi.gov/jointpermit



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Preapplication streams (Part can answer n application fo

How do I complete the Joint Permit Application?

- There are th
1. App
 2. Map
 3. Fee

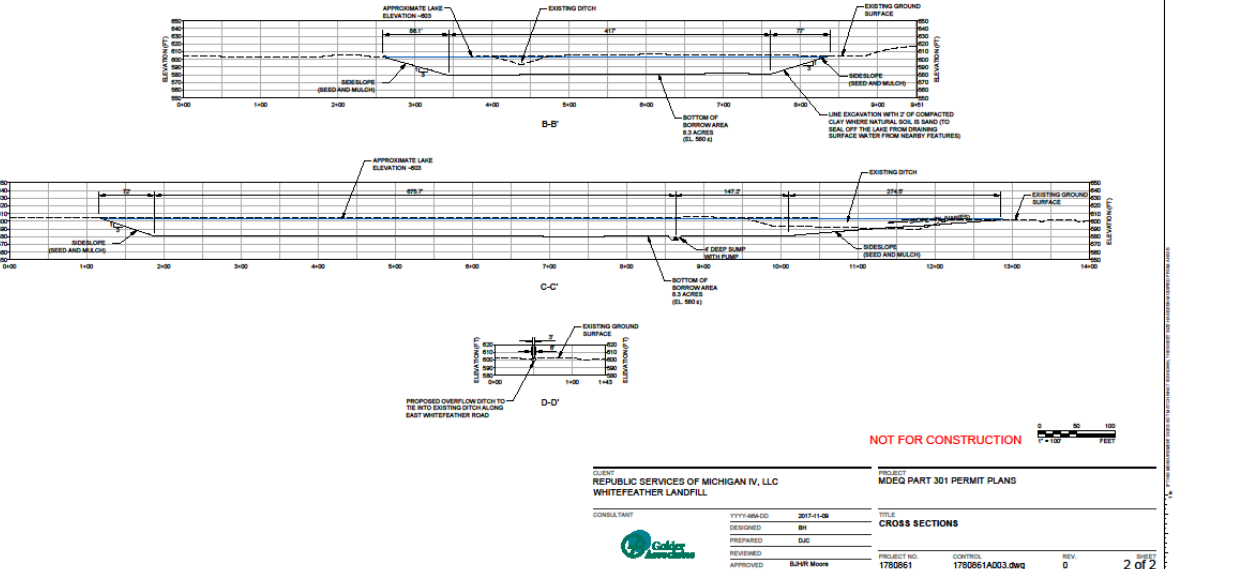
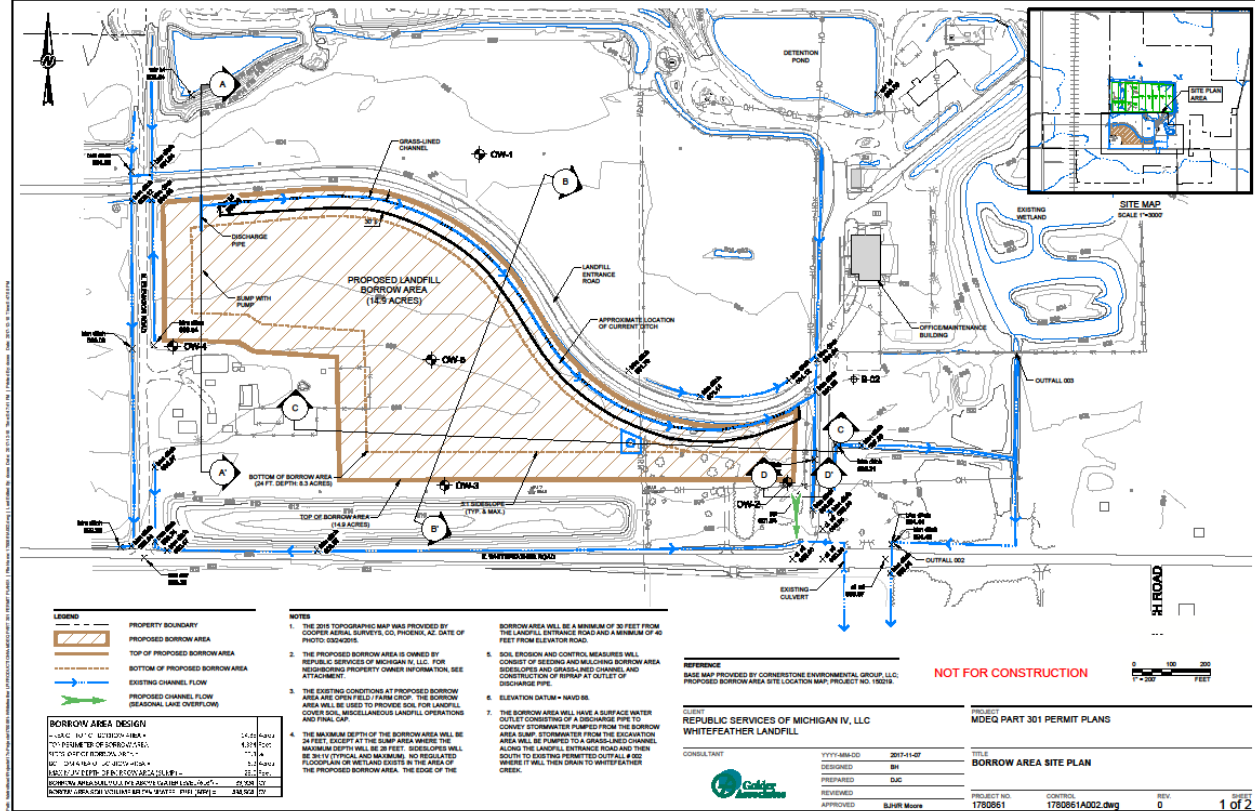
An accurate and complete application package is required for processing; inaccurate or missing information will delay processing.

Follow the ch following inf district offi

- Joint Perm
- EZ Guide:
- Acronyms
- Sample d
- Minor Proj
- Fee sched
- State and
- Glossary i

Joint Permit Application

AGENCY USE	Previous USACE File Number	Date Received	DEQ File Number
	USACE File Number		Fee received \$
Validate that all parts of this checklist are submitted with the application package. Fill out application and additional pages as needed.			
<input type="checkbox"/> All items in Sections 1 through 9 are completed.			
<input type="checkbox"/> Project-specific Sections 10 through 20 are completed.			
<input type="checkbox"/> Dimensions, volumes, and calculations are provided for all impact areas.			
<input type="checkbox"/> All information contained in the headings for the appropriate Sections (1-20) are addressed, and identified attachments (♦) are included.			
<input type="checkbox"/> Map, site plan(s), cross sections; one set must be black and white on 8 1/2 by 11 inch paper; photographs.			
<input type="checkbox"/> Application fee is attached.			
1 Project Location Information For Latitude, Longitude, and TRS info anywhere in Michigan see www.mcgi.state.mi.us/wetlands/			
Project Address (road, if no street address)		Zip Code	Municipality (Township/Village/City)
Property Tax Identification Number(s)		Latitude	Township/Range/Section (TRS)
Subdivision/Plat and Lot Number		Longitude	Sec
			OR Private Claim #
2 Applicant and Agent Information			
Owner/Applicant (individual or corporate name)		Agent/Contractor (firm name and contact person)	
Mailing Address		Mailing Address	
City	State	Zip Code	City
Contact Phone Number	Fax	Contact Phone Number	Fax
Email	E-mail		
<input type="checkbox"/> No <input type="checkbox"/> Yes Is the applicant the sole owner of all property on which this project is to be constructed and all property involved or impacted by this project? ♦ If no, attach letter(s) of authorization from all property owners including the owner of the disposal site.			
Property Owner's Name (if different from applicant)		Mailing Address	
Contact Phone Number	City	State	Zip Code
3 Project Description			
Project Name		Preapplication File Number	
Name of Water body		Date project staked/tagged	
The proposed project is on, within, or involves (check all that apply)			
<input type="checkbox"/> an inland lake (5 acres or more)			
<input type="checkbox"/> a pond (less than 5 acres)			
<input type="checkbox"/> a stream, river, ditch or drain			
<input type="checkbox"/> a legally established County Drain			
<input type="checkbox"/> Date Drain was established			
<input type="checkbox"/> a channel/canal			
<input type="checkbox"/> 500 feet of an existing water body			
<input type="checkbox"/> a Great Lake or Section 10 Waters			
<input type="checkbox"/> a wetland			
<input type="checkbox"/> a 100-year floodplain			
<input type="checkbox"/> a dam			
<input type="checkbox"/> a designated high risk erosion area			
<input type="checkbox"/> a designated critical dune area			
<input type="checkbox"/> a designated environmental area			
<input type="checkbox"/> private			
<input type="checkbox"/> commercial			
<input type="checkbox"/> public/government			
<input type="checkbox"/> project is receiving federal/state transportation funds			
<input type="checkbox"/> Wetland Restoration			
<input type="checkbox"/> other			
Indicate the type of permit being applied for: <input type="checkbox"/> General Permit <input type="checkbox"/> Minor Project <input type="checkbox"/> Individual (All other projects.) ♦ See Appendix C.			
Written Summary of All Proposed Activities			
Construction Sequence and Methods			



CONSULTANT

REPUBLIC SERVICES OF MICHIGAN IV, LLC

WHITEFEATHER LANDFILL

DESIGNED BY

PREPARED BY

REVIEWED BY

APPROVED BY



CONSULTANT

REPUBLIC SERVICES OF MICHIGAN IV, LLC

WHITEFEATHER LANDFILL

DESIGNED BY

PREPARED BY

REVIEWED BY

APPROVED BY

PROJECT NO.

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DATE

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Mitigation

- Federal permits issued under Section 404 and state permits issued under Parts 301 and/or 303 may include requirements for mitigation of impacted streams or wetlands
 - Permittee-Responsible
 - Mitigation Bank
 - Preservation
- Wetland and stream mitigation can be costly with significant conditions imposed (monitoring, conservation easement, maintenance)
- State permits issued under Part 31 may require compensating cut to offset loss of floodplain capacity

Permitting Strategies

- Pre-Application Meeting(s)
 - MDEQ has a formal procedure under Parts 301, 303, and 353
 - Most local jurisdictions have regular public meetings
 - Invite appropriate stakeholders
 - Federal (USACE)
 - State (MDEQ)
 - Local (County or Township representative)
 - NGO (organization spokesman)
- Clear and concise application materials
- Continued engagement with and prompt responses to the regulators throughout the permitting process

Permitting and Approval Time Frames

The process of preparing and obtaining permits can be highly variable, even for “simple” projects. Preparation of application materials may take days to weeks, and sometimes months. Regulatory review and approvals may take as little as a few weeks for some local permits to several months or more for state or federal permits or projects with strong opposition.

- Federal. No set time frames. NWP 60 to 90 days. IP 90 to 120+ days.
- State. 30 days for initial review (completeness) + 60 to 90 days from a “complete” application.
 - Depends on what resource is impacted
 - Requests for additional information or clarification
 - Public Hearing may extend the process 30 or more days
- Local. Varies on community schedule for board/departments meetings (typically meet on monthly basis). No set time frames, though most local permits can be obtained within 60 to 90 days following completion of detailed site and project plans.

Early identification of required permitting and approvals and early coordination with the appropriate regulatory offices, and possibly other stakeholders, is key to obtaining necessary approvals in a timely manner.

Key to Obtaining Timely Approvals

- Early identification of required permitting and approvals
- Proactive coordination with appropriate regulatory offices
- Develop and support clear and complete applications
- Minimize post-application revisions to major project elements
- *Help the agencies help you*



NOTICE OF AUTHORIZATION

Permit Number: WRP009599 v. 1
Site Name: 29-Lakeside Drive-Perrinton

Date Issued: November 27, 2017
Expiration Date: November 27, 2022

The Michigan Department of Environmental Quality, Water Resources Division, P.O. Box 30458, Lansing, Michigan 48909-7958, under provisions of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; specifically:

- ☒ Part 31, Floodplain Regulatory Authority of the Water Resources Protection.
- ☒ Part 301, Inland Lakes and Streams.
- ☒ Part 303, Wetlands Protection.

Authorized activity:

1. Dredge approximately 2,000 cubic yards of material from a 34,500 square foot area, 410 feet in length by an average width of 105 feet, to a maximum depth of 4.7 feet by mechanical means, from the Otter Creek inlet on Rainbow Lake.
2. Dredge area includes impacts to approximately 0.01 acre of wetland.
3. All dredge material shall be disposed of in uplands on-site.

All work shall be completed in accordance with the attached plans dated November 15, 2017, and specifications of this permit.

To be conducted at property located in: Gratiot County, Waterbody: Rainbow Lake

Permittee:
Rainbow Lake Management Corporation
Attention: Ms. Beth Gruden
4353 Rainbow Lake Road
Perrinton, MI 48871

Jeff Pierce
Lansing District Office
Water Resources Division
517-416-4297

*This notice must be displayed at the site of work.
Laminating this notice or utilizing sheet protectors is recommended.
Please refer to the above permit number with any questions or concerns.*

Permits Issued

Once permits and approvals have been issued, care must be taken to abide by permit conditions.

- Maintain copies of the permit on site and post/maintain notices as necessary
- Provide notifications, install fencing/visual markers, maintain inspection reports and other documents, etc.
- Some permit conditions may apply to contractors working on site. **A permittee can be held responsible by intentional or inadvertent actions by others working on the site.**

For further information please contact Brian Huebner at:
bhuebner@golder.com or (989) 274-4732



Thank you!