

# Lake Michigan Shoreline Management

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## Table of Contents

Introduction .....	3
Federal Laws .....	4
<i>What are the federal laws and regulations that guide shoreline management? .....</i>	<i>4</i>
<i>Are there any USACE national or regional permits relevant to shoreline management that apply or could be adapted to Lake Michigan? .....</i>	<i>5</i>
<i>How does USACE determine/prioritize which harbors will bypass sediment? .....</i>	<i>5</i>
<i>Is there any case law that would show how USACE laws may be implemented differently in the St. Paul, Chicago, and Detroit districts? .....</i>	<i>14</i>
Dredging.....	15
<i>What are the federal permitting requirements? .....</i>	<i>15</i>
<i>What are the state (Wisconsin, Illinois, Indiana, and Michigan) laws and regulations that address use of dredged materials? .....</i>	<i>15</i>
<i>How is sediment/dredged materials characterized in water quality standards for each state? At what threshold is it considered a contaminant? .....</i>	<i>19</i>
Beach Renourishment.....	23
<i>Are there any federal permitting requirements for beach renourishment? .....</i>	<i>23</i>
<i>What are the state (Wisconsin, Illinois, Indiana, and Michigan) laws and regulations that address beach renourishment? .....</i>	<i>23</i>
<i>How does the Public Trust Doctrine impact shoreline management in the four states? .....</i>	<i>25</i>
<i>Is there any language in state laws or regulations that addresses “emergency” shoreline management activities? .....</i>	<i>27</i>
Erosion.....	29
<i>What are the state (Wisconsin, Illinois, Indiana, and Michigan) laws and regulations that address shoreline erosion? .....</i>	<i>29</i>
Shoreline management examples from other states .....	34
<i>South Carolina’s Emergency Orders.....</i>	<i>34</i>
<i>Ohio’s Temporary Permits .....</i>	<i>35</i>

## Introduction

The Wisconsin Sea Grant Program and Illinois Coastal Management Program requested information from the National Sea Grant Law Center on state and federal laws related to shoreline management across the Lake Michigan region. The report is organized by questions submitted by the programs. The research is focused on all four Lake Michigan states: Illinois, Indiana, Michigan, and Wisconsin. This lake-wide research approach was requested to provide a broader view essential for Lake Michigan states to learn from one another and to coordinate more closely when making day-to-day shoreline management decisions to most effectively use limited resources.

## Federal Laws

### What are the federal laws and regulations that guide shoreline management?

The U.S. Army Corps of Engineers has primary federal permitting authority for shoreline management projects under the Clean Water Act (CWA) and the Rivers and Harbors Act of 1899 (RHA). Under § 404 of the CWA, a Corps permit is required to discharge dredge or fill material into waters of the United States.<sup>1</sup> The Environmental Protection Agency (EPA) also has a role in CWA § 404 permits, as the permits must comply with the agency's § 404(b)(1) regulations. The EPA may impose permit conditions or veto the permit if the discharge of materials will have adverse impacts on the environment. States also have a role, as § 401 of the CWA requires federal permit applicants to obtain state certification that the project is compliant with state water quality standards.

Section 10 of the RHA prohibits the obstruction or alteration of navigable waters of the United States without a Corps permit. The Corps has combined the permitting process for the CWA and the RHA. All projects that receive a § 404 permit must be in compliance with other applicable federal laws. For example, the projects may not result in violation of the Endangered Species Act, the National Historic Preservation Act, or the Magnuson-Stevens Fishery Management and Conservation Act. The National Environmental Policy Act (NEPA) requires that any significant federal project consider the adverse environmental impacts of the action. Under NEPA, the Corps must evaluate the environmental effects of a permit application. In some cases, the NEPA process includes opportunities for public review and comment to help inform the Corps' evaluations and decisions.

Under the Coastal Zone Management Act, states have developed Coastal Zone Management Programs.<sup>2</sup> Any federal projects that affect the coastal zone must be consistent with a state's Coastal Zone Management program.<sup>3</sup> Federally permitted projects, project activities conducted by or on behalf of a federal agency, permits issued under the Outer Continental Shelf Lands Act (OCSLA),<sup>4</sup> and federally funded projects must have a consistency determination from the state before proceeding.

In addition to permitting programs, the Water Resources Development Act (WRDA) or Water Resources Reform and Development Act authorize many individual projects and provide funding for dredging projects. The Acts are regularly approved by Congress and provide policy guidance. The WRDA of 1986 granted the Corps authority to engage in such projects. The WRDA of 1992 § 204, as amended, grants the Corps the authority to sponsor beneficial use projects with dredged material.

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<sup>1</sup> 33 U.S.C. § 1251.

<sup>2</sup> 16 U.S.C. § 1451 *et seq.*

<sup>3</sup> 16 U.S.C. § 1456(c)(1)(a).

<sup>4</sup> OCSLA codifies U.S. jurisdiction of submerged lands seaward of state lands and governs oil and gas development in federal waters. *See* 43 U.S.C. § 1331 *et seq.*

## How does USACE determine/prioritize which harbors will bypass sediment?

The Corps' "Federal Standard" identifies the least costly dredged material placement or disposal option and ensures the disposal or placement is consistent with federal environmental laws and sound engineering practices.<sup>5</sup> "Establishing the Federal Standard for a particular dredging project is not the same as selecting a disposal or placement option for that project, nor does it limit potential federal participation in the project."<sup>6</sup> Rather, the Federal Standard is a "base plan," and a beneficial use option may be chosen even if it is not the Federal Standard for that project. If a beneficial use would incur costs above the federal standard, the state or local government would be required to share the incremental costs.

Additionally, if a state agency imposes conditions or requirements under its water quality certification or coastal zone consistency requirements that exceed those needed to meet the Federal Standard, it may impact a dredging project. In that instance, the Corps will attempt to work with the state to the "extent practicable."<sup>7</sup> If no local sponsor provides suitable disposal areas, "...the added Federal cost of providing these disposal areas will affect the priority of performing dredging on that project."<sup>8</sup> If the state denies or notifies the district engineer of its intent to deny water quality certification or does not concur regarding coastal zone consistency, the project dredging may be deferred.<sup>9</sup>

## Are there any USACE national or regional permits relevant to shoreline management that apply or could be adapted to Lake Michigan?

The Corps authorizes projects under § 404 and § 10 through individual and general permits. The Corps issues individual permits for projects that do not meet the agency requirements for a general permit. Activities that conflict with existing public water uses or result in significant impacts to wetlands, streams, and other aquatic resources generally require individual permits. General permits authorize common activities that cause only minimal individual and cumulative environmental impacts. The Corps uses three types of general permits: 1) Nationwide Permits, 2) Regional General Permits, and 3) Programmatic General Permits.

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<sup>5</sup> Final Rule for Operation and Maintenance of Army Corps of Engineers Civil Works Projects Involving the Discharge of Dredged Material Into Waters of the U.S. or Ocean Waters, 53 Fed. Reg. 14902-01 (Apr. 26, 1988).

<sup>6</sup> Environmental Protection Agency, The Role of the Federal Standard in the Beneficial Use of Dredged Material (Oct. 2007), available at [https://www.epa.gov/sites/production/files/2015-08/documents/role\\_of\\_the\\_federal\\_standard\\_in\\_the\\_beneficial\\_use\\_of\\_dredged\\_material.pdf](https://www.epa.gov/sites/production/files/2015-08/documents/role_of_the_federal_standard_in_the_beneficial_use_of_dredged_material.pdf).

<sup>7</sup> 33 C.F.R. § 337.2.

<sup>8</sup> 33 C.F.R. § 337.2(b)(2).

<sup>9</sup> 33 C.F.R. § 337.2(b)(3).

## Nationwide

Nationwide permits (NWP) are issued by the Corps on a national basis and are designed to streamline authorization of projects such as commercial developments, utility lines, or road improvements that produce minimal impact on the nation's aquatic environment.<sup>10</sup> There are currently 52 NWPs.<sup>11</sup> The Corps renews and re-issues NWPs every five years, most recently renewing the permits in March 2017.<sup>12</sup> Regional Corps districts may revoke NWPs or provide additional regional and state conditions. States may prohibit the application of NWPs by denying §401 Water Quality Certification or by finding that the NWP is inconsistent with the state's Coastal Program.

There are several NWP permits that could apply to shoreline erosion control or beach renourishment projects:

- NWP 3 authorizes the repair, rehabilitation, or replacement of previously authorized, currently serviceable structures or fills. It authorizes only minor deviations and specifically notes that it does not authorize beach restoration. NWP 3 also authorizes discharges associated with the removal of accumulated sediments and debris in the vicinity of existing structures, including intake and outfall structures and associated canals. It authorizes temporary structures, fills, and work necessary to conduct maintenance activity.
- NWP 13 authorizes bank stabilization activities necessary for erosion control or prevention, such as vegetative stabilization, bioengineering, sills, rip rap, revetment, gabion baskets, stream barbs, and bulkheads, or combinations of bank stabilization techniques. The activities must meet certain criteria, including:
  - No material in excess of the minimum required for erosion may be placed; activity may not be more than 500 feet along the bank (unless waived by District Engineer (DE) – waivers for bulkheads limited to 1,000 linear feet along the shore.); activity may not exceed 1 cubic yard per running foot (unless waived by DE); activity may not involve discharges of dredged or fill material into special aquatic sites; material may not be of a type, or is placed in any location, or in any manner, that will impair surface water flow into or out of any waters of the United States; no material may be placed in a manner that will be eroded by normal or expected high flows; native plants appropriate for current site conditions, including salinity, must be used for bioengineering or vegetative bank stabilization; the activity may not be a

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<sup>10</sup> 33 U.S.C. § 1251.

<sup>11</sup> U.S. ARMY CORPS OF ENG'RS, *2017 NWP Final Decision Documents*, [https://www.usace.army.mil/missions/civil-works/regulatory-program-and-permits/nationwide-permits/2017\\_nwp\\_finaldd/](https://www.usace.army.mil/missions/civil-works/regulatory-program-and-permits/nationwide-permits/2017_nwp_finaldd/).

<sup>12</sup> Press Release, U.S. Army Corps of Eng'rs, Army Corps of Engineers Revises and Renews Nationwide Permits (Jan. 6, 2017), <http://www.usace.army.mil/Media/News-Releases/News-Release-Article-View/Article/1043614/army-corps-of-engineers-revises-and-renews-nationwide-permits>.

stream channelization activity; and the activity must be properly maintained, which may require repairing it after severe storms or erosion events.

- NWP 18 authorizes minor discharges of dredged or fill material into all waters of the United States, provided the activity meets all of the following criteria:
  - The quantity of discharged material and the volume of the area excavated may not exceed 25 cubic yards discharged below plane of ordinary high water mark/high tide line; the discharge will not cause the loss of more than 1/10-acre of waters of the United States; and the discharge is not placed for the purpose of a stream diversion.
- NWP 19 authorizes minor dredging of no more than 25 cubic yards below the plane of the ordinary high water mark or the mean high water mark from navigable waters of the U.S.
- NWP 27 authorizes activities associated with the restoration, enhancement, and establishment of tidal and non-tidal wetlands and riparian areas, the restoration and enhancement of nontidal streams and other non-tidal open waters, and the rehabilitation or enhancement of tidal streams, tidal wetlands, and tidal open waters, provided those activities result in net increases in aquatic resource functions and services.
  - Does not authorize relocation or conversion of tidal waters. Does not authorize conversion of wetlands or streams.
- NWP 37 authorizes emergency watershed protection and rehabilitation for work done or funded by certain programs. The applicable program for shorelines may be the Natural Resources Conservation Service for a situation requiring immediate action under its emergency Watershed Protection Program.<sup>13</sup>
  - Prospective permittees should wait 45 days before proceeding if the Corps has not issued a verification letter, but may proceed immediately if there is an unacceptable hazard to life or significant loss of property or economic hardship will occur.
- NWP 54 authorizes the construction and maintenance of living shorelines for shore erosion control. It does not authorize beach renourishment.

As noted above, Corps districts may revoke NWPs or provide additional regional and state conditions. Several Corps regional districts serve the Lake Michigan shoreline in Illinois, Indiana, Michigan and Wisconsin. The Detroit District covers Michigan and Indiana. The Chicago District has jurisdiction over Illinois and Indiana. The St. Paul District covers Wisconsin. States also have the authority to add conditions or revoke permits through §401 Water Quality Certification or the CZMA consistency provision. The sections below identify

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<sup>13</sup> 7 C.F.R. pt. 624.

the NWP's in the above list with regional or state conditions and/or revocations within Indiana, Illinois, Michigan, and Wisconsin:

### *Illinois*

#### District Actions:

- The Chicago District revoked NWP's 3, 13, 18, 19, 27.
- The Chicago District developed Regional Conditions for all remaining NWP's:<sup>14</sup>
  - Stormwater management facilities must not be located within a stream, except for NWP's 21, 44, 49, or 50.
  - For newly constructed channels through areas that are unvegetated, native grass filter strips, or a riparian buffer with native trees or shrubs, a minimum of 25 feet wide from the top of bank must be planted along both sides of the new channel. A survival rate of 80% of desirable native species with aerial coverage of at least 50% must be achieved within 3 years of establishment of the buffer strip.
  - Side slopes of a newly constructed channel may be no steeper than 2:1 and planted to permanent, perennial, native vegetation if not armored.
  - For a single-family residence authorized under NWP 29, the permanent loss of waters of the United States (including jurisdictional wetlands) must not exceed 1/4 acre.
  - For NWP 46, the discharge of dredged or fill material into ditches and canals that would sever the jurisdiction of an upstream water of the United States from a downstream water of the United States is not allowed.
  - Any bank stabilization activity involving a method that protrudes from the bank contours, such as jetties, stream barbs, and/or weirs, will require a pre-construction notification.
  - Mitigation must be constructed prior to, or concurrent with the discharge of dredged or fill material into waters of the United States unless an alternate timeline is specifically approved in the authorization.
  - Operation of heavy equipment within the stream channel should be avoided. If in-stream work is unavoidable, it must minimize the duration of the disturbance, turbidity increases, substrate disturbance, bank disturbance, and disturbance to riparian vegetation. This condition does not further restrict otherwise authorized drainage ditch maintenance activities.

#### State actions:

- Illinois EPA imposed conditions on 13, 18, 19, 27, 54.<sup>15</sup>
- Illinois EPA denied certification for 37.

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<sup>14</sup> U.S. ARMY CORPS OF ENG'RS, *Public Notice Announcing the Decision on the Revocation of Certain Nationwide Permits 2017*, <https://www.lrc.usace.army.mil/Portals/36/docs/regulatory/pdf/NWP-ILPN2017.pdf>.

<sup>15</sup> ILL. ENVTL. PROT. AGENCY, *Final Notice of Issuance of NWPS, § 401 Certification* (Feb. 27, 2017), <https://www.lrc.usace.army.mil/Portals/36/docs/regulatory/pdf/NWP-IEPA-2017.pdf>.



## *Indiana*

### District Actions:

- The Louisville, Chicago, and Detroit Districts suspended NWP 13 and 18 in Indiana when they issued RGP 1 for Indiana (see RGP section below)
- Louisville, Chicago, and Detroit Districts have regional conditions for all remaining NWPs in Indiana.<sup>16</sup>
  - Excavation/dredging from areas of known or suspected contamination requires:
    - Placement of the material in a Confined Disposal Facility or Class II landfill;
    - Placement of the material by other Corps' approved method; or
    - Testing to demonstrate that the material is not contaminated.
    - Notification in accordance with Condition 32 is required to the Corps for all activities affecting Designated Salmonid Waters, Outstanding State Resource Waters, Exceptional Use Streams, and Critical Wetlands and Critical Special Aquatic Sites.
  - Notification is required to the Corps for all activities that would cause, alter, or affect diversion of water from the Great Lakes basin.
  - Notification is required to the Corps for all activities that are subject to jurisdiction under RHA § 10.
  - All applications are required in a paper copy and an electronic media format, including electronic mail or compact disc.

### State actions:

- Indiana DEM denied NWP 54.
- Indiana DEM approved NWPs 27 and 37 with special conditions.

## *Michigan*

### District actions:

- The Detroit District issued NWP 18 with additional regional conditions.
- The Detroit District issued regional conditions applicable to all NWPs in Michigan.<sup>17</sup>

### State actions:

- MDEQ approved NWPs 3, 13, 18, 19, 27, and 54 with conditions.<sup>18</sup>

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<sup>16</sup> U.S. ARMY CORPS OF ENG'RS, *Public Notice Announcing Regional Conditions and Certification for NWPs in Indiana* (March 19, 2017)

<https://www.lre.usace.army.mil/Portals/69/docs/regulatory/PDFs/PN%20for%20Final%20IN%20NWP%20with%20Regional%20Conditions.pdf>.

<sup>17</sup> U.S. ARMY CORPS OF ENG'RS, *Reissuance of Nationwide Permits and Final Conditions in Michigan*, <https://www.lre.usace.army.mil/Portals/69/docs/regulatory/PDFs/PN%20for%20Final%20MI%20NWP%20with%20Regional%20Conditions.pdf>.

<sup>18</sup> *Id.*

- MDEQ granted 37 without conditions.

## *Wisconsin*

### District actions:

- St. Paul District issued all NWP's outlined above, with regional conditions outlined below.
- The District issued regional conditions for NWP 3 related to maintenance.<sup>19</sup> The project proponent must notify the District Engineer by submitting a Pre-Construction Notice (PCN) if (1) loss of waters of the U.S., including wetlands, exceed 1/10 acre, beyond the footprint of the existing structure or project; or (2) temporary impacts from flooding, filling, excavating, drainage, or mechanized land-clearing to waters of the U.S., including wetlands, exceeds 1/2 acre, beyond the footprint of the existing structure or project. This notification requirement is in addition to the notification criteria listed for this NWP. This regional condition applies to paragraphs a and c of NWP 3.
- The District issued regional conditions for all NWP's:<sup>20</sup>
  - District retains discretionary authority to require an individual permit of any activity eligible for authorization by a NWP based on concern for the aquatic environment or for any other factor of the public interest.
  - Any regulated activity that would result in the loss of greater than 500 linear feet of a tributary in a single location is not authorized by a NWP with the exception of projects verified by NWP's 13, 27, 32, 37, 53 or 54 where the permanent alteration would have an overall beneficial effect on the aquatic ecosystem. A waiver may be requested.
  - No linear utility or linear transportation projects are eligible for authorization by NWP's.
  - No project or part of a project that would divert more than 10,000 gallons per day of surface or ground water into or out of the Great Lakes Basin is authorized by NWP's.
  - No activity may impair tribal rights, including treaty rights, protected tribal resources or tribal lands.
  - Regulated activities located within an area eligible for authorization under a valid Special Area Management Plan with an associated programmatic general permit are ineligible for authorization by NWP's.
  - The Lake Superior National Estuarine Research Reserve is a designated critical resource water and is subject to the NWP limitations and PCN requirements described in General Condition #22 of the NWP's.

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<sup>19</sup> Nationwide Permits available for use in Minnesota and Wisconsin, <https://www.mvp.usace.army.mil/Portals/57/docs/regulatory/NWPs/NWP%203.pdf?ver=2017-04-21-103030-117>.

<sup>20</sup> *Id.*

- No work in a calcareous fen is authorized by a NWP unless the Wisconsin Department of Natural Resources (WI DNR) has approved an individual permit for the proposed regulated activity.
- PCN Requirements for Specific Water/Places
  - PCNs for Special Aquatic Resources
  - PCNs for Bridges, Structures, and Vessels more than 50 years old
  - PCNs for Suspected Sediment or Soil Contamination
  - PCNs for Temporary Impacts
- Proposed projects that require a PCN must include a statement describing how permanent and temporary impacts to waters of the U.S. would be avoided and minimized
- Site protection requirements related to:
  - Site inspection
  - Restoration for Temporary Impacts
  - Duration of Temporary Impacts
  - Culverts and Crossings
  - Best Management Practices
  - Riprap
  - Pollutant or Hazardous Waste Spills
  - Clear Construction Equipment
  - Compliance

State actions:

- WDNR denied NWP 19.
- WDNR issue general conditions for all applicable NWPs.<sup>21</sup>

### *Regional General Permits*

An individual Corps district may issue a regional general permit for a specific geographic area. Each regional general permit has specific terms and conditions. A state may issue additional conditions for RGPs pursuant to §401 WQC or deny consistency under the CZMA.

Chicago District

- The Chicago District has created a Regional Permit Program (RPP) to authorize the discharges of dredged and fill material into jurisdictional waters of the United States in the Chicago area (Cook, DuPage, Kane, Lake, McHenry and Will Counties in Illinois).<sup>22</sup> Applicable Regional Permits include:

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<sup>21</sup> U.S. ARMY CORPS OF ENG'RS, ST. PAUL DIST., *Final and Corrected Regional Conditions for 2017 NWP in Minn. and Wis.* (June 19, 2017), <http://www.mvp.usace.army.mil/Portals/57/docs/regulatory/Special%20Notices/WDNR%20New%20and%20MDNR%20Corrected%20PN%20Regional%20Conditions%20NWPs.pdf?ver=2017-06-19-111419-253>.

<sup>22</sup> U.S. ARMY CORPS OF ENG'RS, CHICAGO DIST., *Chicago District's 2017 Regional Permit Program*, <http://www.lrc.usace.army.mil/Missions/Regulatory/Regional-Permit-Program/>.

- Regional Permit 4 - Minor Discharges and Dredging authorizes discharges and dredging activities not to exceed 50 cubic yards.
- Regional Permit 5 - Aquatic Habitat Restoration, Establishment, and Enhancement authorizes the restoration, establishment and enhancement of wetlands and riparian areas, and the restoration and enhancement of rivers, creeks and streams, and open water areas on any public or private land.
- Regional Permit 9 - Maintenance authorizes repair, rehabilitation, or replacement of any previously authorized, currently serviceable structure or fill, as well as the repair, rehabilitation, or replacement of those structures destroyed by storms, floods, fire or other discrete events
- Regional Permit 10 - Bank Stabilization authorizes bank stabilization activities in all waters of the U.S., except Lake Michigan, and is subject to the General Conditions of the RPP.

#### Detroit District

- The Detroit District issued an RGP for minor work, structures, and discharges of dredged and fill material in Michigan:
  - Docks – Permanent and Seasonal: size and material specifications
  - Spring Piles/Pile Clusters: 1) The location and number of proposed spring piles/pile clusters must be reasonable and consistent with location and number provided for similar structures in the vicinity. 2) The spring piles/pile clusters must be constructed of non-contaminated materials. 3) The piling(s) would not cause the total number of watercraft accommodated on the lot to exceed four (4), including other existing and/or proposed moorage structures on the lot. Michigan Department of Environmental Quality (MDEQ) Water Quality Certification/CZMA Consistency for RP B: MDEQ granted certification based on the following conditions: (a) Structures must not adversely impact navigation.
  - Marine Railways: 1) Marine railways must be for private (non-commercial) use. 2) One railway structure per lot is allowed. 3) The railway is of reasonable length and consistent with the lengths of other similar structures in the vicinity. 4) The railway must be seasonal and that portion waterward of the Corps of Engineers Ordinary High Water Mark (OHWM) must be removed at the end of each boating season. 5) The cradle must be fitted with a flag or light so as to be visible from the water when in a launched position.
  - Seawalls and Backfill
  - Public Beach Grooming
  - Individual Dredging
  - Boat Hoists
  - Boat Wells
  - Maintenance and/or Expansion of Existing Boat Ramps
  - Groins
  - Submerged Utility Line Crossings
  - Water Intake for Single Family Residences
  - Temporary Cofferdams and Caissons
  - Mechanical Control of Aquatic Plants and Removal of Floating Mats of Aquatic Vegetation for Navigation Access

- Removal of Structures
- Boat Well Fill
- Aeration Systems
- Mooring Whips
- Leveling of Sand
- Grooming of Sand
- Sand Paths
- Boardwalks
- Annual Dredging
- Riprap/Revetment.<sup>23</sup>

#### Detroit, Chicago, and Louisville Districts

- The three districts jointly developed Indiana RGP 001 to authorize activities that affect less than one acre of waters of the U.S. associated with the construction or installation of facilities or structures, including:
  - Bank Stabilization using Clean Fill Materials
  - Linear Transportation Projects
  - Minor Discharges, Residential Developments
  - Boat Ramps
  - Commercial and Institutional Developments
  - Agricultural Activities
  - Reshaping Existing Drainage Ditches
  - Recreational Facilities, Stormwater Management Facilities
  - Mining Activities<sup>24</sup>

#### St. Paul District

- Applicable RGPs for Minnesota and Wisconsin
  - Beach creation and renourishment RGP authorizes the placement of sand or pea gravel for the creation of new recreational beaches or nourishment of established beaches, including temporary impacts necessary to complete beach creation and nourishment.<sup>25</sup>

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<sup>23</sup> U.S. ARMY CORPS OF ENG'RS, DETROIT DIST., *Reissuance of RGP for Minor Work, Structures, and Discharges of Dredge and Fill Material in Mich.* (June 30, 2017), [https://www.lre.usace.army.mil/Portals/69/docs/regulatory/PDFs/19902000050S16\\_Final%20with%20Regional%20Conditions-RMD\\_PN.pdf](https://www.lre.usace.army.mil/Portals/69/docs/regulatory/PDFs/19902000050S16_Final%20with%20Regional%20Conditions-RMD_PN.pdf).

<sup>24</sup> U.S. ARMY CORPS OF ENG'RS, DETROIT, LOUISVILLE, CHICAGO DIST., *Reissuance of Indiana RGP 001* (Dec. 15, 2014), <https://www.lre.usace.army.mil/Portals/69/docs/regulatory/PDFs/PN%20for%20FINAL%20Reissue.pdf>.

<sup>25</sup> U.S. ARMY CORPS OF ENG'R, ST. PAUL DIST., *Beach Creation and Nourishment General Permit*, (Feb. 21, 2018), [http://www.mvp.usace.army.mil/Portals/57/docs/regulatory/RGP/BeachCreationNourishment\\_RGP.pdf?ver=2018-02-22-093528-230](http://www.mvp.usace.army.mil/Portals/57/docs/regulatory/RGP/BeachCreationNourishment_RGP.pdf?ver=2018-02-22-093528-230).

- Beach raking RGP authorizes mechanical beach raking activities for the purpose of removing accumulated debris below the ordinary high water mark of a beach, including but not limited to, woody debris, algae, and dead aquatic plants and shellfish.<sup>26</sup>
- Minor discharges RGP authorizes single and complete nonlinear projects that may not impact more than 400 square feet of U.S. Waters.<sup>27</sup>

### *Programmatic*

Programmatic general permits (PGPs) are based on existing state, local, or other federal programs. PGPs are designed to eliminate redundancy among Corps and state programs.<sup>28</sup> PGPs may replace some or all of the NWP in some states.<sup>29</sup> The Detroit, Louisville, and Chicago Districts have a PGP for certain waters in Indiana, but it does not apply to Lake Michigan.<sup>30</sup>

### **Is there any case law that would show how USACE laws may be implemented differently in the St. Paul, Chicago, and Detroit districts?**

There are no cases that allow direct comparison between the implementation of Corps regulations among the various districts, but the following case involving a Corps dredging decision may provide some insight. The State of Ohio brought an action asking the court to compel the Corps to dredge the upper channel of a river and require it to pay for disposal of the dredged sediment in compliance with state's water quality certification requirements under § 401 of CWA.<sup>31</sup> The court issued a preliminary injunction that required the Corps to dredge the channel and dispose of dredged material in a confined disposal facility (CDF), as requested by state. The court ruled that the Corps was required dispose of dredged material at federal expense pursuant to Ohio's water quality certification requirements. The court noted that the Corps was required to comply with Ohio's water

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<sup>26</sup> U.S. ARMY CORPS OF ENG'R, ST. PAUL DIST., *Beach Raking RGP*, (Feb. 21, 2018) [http://www.mvp.usace.army.mil/Portals/57/docs/regulatory/RGP/Beach\\_Raking\\_RGP.pdf?ver=2018-02-22-093527-683](http://www.mvp.usace.army.mil/Portals/57/docs/regulatory/RGP/Beach_Raking_RGP.pdf?ver=2018-02-22-093527-683)

<sup>27</sup> U.S. ARMY CORPS OF ENG'R, ST. PAUL DIST., *Minor Discharges RGP*, (Feb. 21, 2018) [http://www.mvp.usace.army.mil/Portals/57/docs/regulatory/RGP/MinorDischarges\\_RGP.pdf?ver=2018-02-22-093528-840](http://www.mvp.usace.army.mil/Portals/57/docs/regulatory/RGP/MinorDischarges_RGP.pdf?ver=2018-02-22-093528-840).

<sup>28</sup> U.S. ARMY CORPS OF ENGINEERS, *Regional and Programmatic General Permits*, <http://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/Obtain-a-Permit>.

<sup>29</sup> *Id.*

<sup>30</sup> U.S. ARMY CORPS OF ENG'R, LOUISVILLE, DETROIT, CHICAGO DISTRICTS, *Programmatic General Permit for Minor Activities in Ind.*, (March 2, 2018), [https://www.lre.usace.army.mil/Portals/69/docs/regulatory/PN/19981000100S17\\_Final\\_INPGP\\_Exp\\_05\\_Mar\\_2023-RMD\\_PN.pdf](https://www.lre.usace.army.mil/Portals/69/docs/regulatory/PN/19981000100S17_Final_INPGP_Exp_05_Mar_2023-RMD_PN.pdf).

<sup>31</sup> *Ohio v. United States Army Corps of Engineers*, 259 F. Supp. 3d 732 (N.D. Ohio 2017).

quality standards. “Congress did not authorize agencies to override a state’s interpretation of its own standards, or to seek contribution from other entities for the compliance costs. Nor did it tell agencies that they did not have to comply with any state requirement that they deemed to be too expensive. Rather, Congress specifically and unambiguously told agencies that they must cooperate with the states, and comply with the state standards to the same extent as would any nongovernmental discharger.”<sup>32</sup>

## Dredging

### What are the federal permitting requirements?

As noted above, under the CWA and RHA, the U.S. Army Corps of Engineers has primary federal permitting authority for dredge and fill projects. States also have a role in the federal permitting process, as CZMA requires the permits to be consistent with approved state coastal management programs and CWA permits are subject to state §401 certification.<sup>33</sup> In addition to the permitting requirements covered above, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) regulates the release of pollutants and contaminants into the environment.<sup>34</sup> The dredging and disposal of contaminated sediments may result in strict liability for releases of hazardous substances under CERCLA. The Toxic Substances Control Act of 1976 regulates the production, importation, use, and disposal of specific chemicals including PCBs.<sup>35</sup> The WRDAs discussed in Section 1 grant the Corps the authority and funds for dredging projects.

### What are the state (Wisconsin, Illinois, Indiana, and Michigan) laws and regulations?

#### Illinois

In Illinois, the Illinois Department of Natural Resources, Office of Water Resources, the Illinois Environmental Protection Agency, and the U.S. Army Corps of Engineers oversee permitting for dredge and fill activities. The Corps requires a federal § 404 CWA permit. The Illinois Department of Natural Resources, Office of Water Resources (IDNR) oversees the state permit process. An Illinois Environmental Protection Agency (IEPA) water quality certification is also required for USACE and IDNR permits. The agencies use a joint application, which is submitted to the Corps, the IDNR, and the IEPA; however, the agencies perform separate reviews.<sup>36</sup>

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<sup>32</sup> *Id.* at 750-751.

<sup>33</sup> 16 U.S.C. § 1456(c)(1)(a).

<sup>34</sup> 42 U.S.C. § 9620.

<sup>35</sup> 15 U.S.C. § 2601.

<sup>36</sup> ILL. DEP’T OF NATURAL RES., *Permit Application and Instructions*, <https://www.dnr.illinois.gov/WaterResources/Pages/PermitApplicationandInstructions.aspx>.

Under the Rivers, Lakes, and Streams Act, IDNR may permit the deposit of dredged material in Lake Michigan only when the IEPA makes a final determination that the dredging or deposit of material will not cause a violation of the Environmental Protection Act or Pollution Control Board regulations.<sup>37</sup> The IDNR has promulgated its Part 3704 Rules “Regulation of Public Waters” pursuant to the Rivers, Lakes, and Streams Act to review applications for activities in or along Lake Michigan. Under the rules, the open water disposal of material dredged from a navigation channel is allowed.<sup>38</sup>

For discharge of dredged material in navigable waters, the Illinois EPA must determine the significant physical and chemical characteristics of the material to be excavated in order to evaluate the potential for water pollution.<sup>39</sup> Information on the material being excavated, the disposal site, and the receiving water beyond the dispersion (mixing) zone is required.<sup>40</sup> Material is exempt from testing if certain conditions are met (see page 19 below).<sup>41</sup>

## *Indiana*

In Indiana, dredge and fill activities require a federal § 404 CWA permit. Indiana Department of Natural Resources (IDNR) permits are required for projects that will impact a navigable waterway.<sup>42</sup> Applicants apply separately to each agency. The Indiana Department of Environmental Management (IDEM) must issue a § 401 water quality certification before a § 404 permit may be issued.

The Sand and Gravel Permits Act authorizes the Indiana Department of Natural Resources to regulate the taking of sand, gravel, stone, or other mineral or substance from or under the bed of a navigable waterway.<sup>43</sup> If a permittee takes sand from the bed or from under the bed of Lake Michigan, the sand may only be deposited on the beach of Lake Michigan and may not be removed to any other place or used for any other purpose. Exceptions exist: 1) if dredging less than 10 cubic yards over a period of 30 days, the material may be used elsewhere and 2) sand defined as a toxic material in Ind. Code Ann. § 13-11-2-233 (material as defined in CERCLA or as hazardous by the agency) must be disposed of as outlined in Ind. Code 13-22.<sup>44</sup> The DNR is also authorized to impose a “royalty fee” for the removal of dredge materials from the bed of Lake Michigan. The royalty fee may be waived

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<sup>37</sup> 615 ILL. COMP. STAT. ANN. 5/18.

<sup>38</sup> ILL. ADMIN. CODE tit. 17, § 3704.70.

<sup>39</sup> *Id.* § 395.101 *et. seq.*

<sup>40</sup> *Id.* § 395.203.

<sup>41</sup> *Id.* § 395.204.

<sup>42</sup> For example, permits required under the Lake Preservation Act, the Flood Control Act, Navigable Waterways Act, Sand and Gravel Permits Act). Any fill activities in isolated wetlands require an IDEM permit.

<sup>43</sup> IND. CODE ANN. § 14-29-3.

<sup>44</sup> *Id.*



if any suitable dredge materials are used for beach nourishment or placed in a landfill as defined by state law.<sup>45</sup>

The IDEM Office of Land Quality regulates the disposal of solid and hazardous waste. Uncontaminated dirt is exempt from solid waste regulation.<sup>46</sup> Contaminated sediments are examples of “other discarded materials.”<sup>47</sup> These sediments must be disposed of in a permitted solid waste facility.<sup>48</sup> IDEM has developed risk-based non-rule policy documents (NPDs) to address the cleanup of contaminated soil. These NPDs include IDEM’s Remediation Closure Guide and the Remediation Program Guide.<sup>49</sup>

## Michigan

Under the CWA, states or tribes may assume § 404 administrative duties in certain state or tribal waters.<sup>50</sup> Michigan is one of two states approved to administer the § 404 program. States or tribes that administer their own § 404 programs must develop permit program consistent with the requirements of the CWA and relevant regulations. After a state or tribe is approved by the EPA to administer the program, the state or tribe processes § 404 permits in waters under state or tribal jurisdiction. The MDEQ Water Resources Division (WRD) oversees permitting dredge and fill activities and water quality certification that occur in certain state waters. Under § 10 of the RHA, the Corps retains jurisdiction of tidal waters and their adjacent wetlands and waters used as a means to transport interstate or foreign commerce and their adjacent wetlands. There is a joint permit application for the Corps and MDEQ.<sup>51</sup>

The Michigan Submerged Lands Act requires a state permit for altering the bottomlands.<sup>52</sup> This would include dredging and beach renourishment, among other activities. The MDEQ has developed a policy for the placement of dredged material on bottomlands.<sup>53</sup> Placement may be approved based on outlined size, quality, and placement of the material. The policy is not binding but merely provides direction to MDEQ staff.

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<sup>45</sup> 312 IND. ADMIN. CODE § 6-5-8.

<sup>46</sup> *Id.* §§ 10-3-1; 11-3-1.

<sup>47</sup> *Id.* § 10-2-174.

<sup>48</sup> Ind. Dep’t of Env’tl Mgmt., *Uncontaminated Soil Policy* (Apr. 10 2015) [https://www.in.gov/idem/ctap/files/nrpd\\_waste-0064.pdf](https://www.in.gov/idem/ctap/files/nrpd_waste-0064.pdf).

<sup>49</sup> [https://www.in.gov/idem/cleanups/files/remediation\\_program\\_guide.pdf](https://www.in.gov/idem/cleanups/files/remediation_program_guide.pdf) IND. ADMIN. CODE §§ 13-12-3-2 and 13-25-5-8.5.

<sup>50</sup> The Corps retains jurisdiction in tidal waters and their adjacent wetlands and waters used as a means to transport interstate or foreign commerce and their adjacent wetlands.

<sup>51</sup> MICH. DEP’T OF ENV’T, GREAT LAKES, AND ENERGY, [https://www.michigan.gov/deq/0,4561,7-135-3313\\_71520\\_24403---,00.html](https://www.michigan.gov/deq/0,4561,7-135-3313_71520_24403---,00.html).

<sup>52</sup> MICH. COMP. LAWS ANN. § 324.32512.

<sup>53</sup> Mich. Dept of Env’tl. Quality, *Placement of Dredged Materials on Great Lakes Bottomlands* (May 8, 2015) [https://www.michigan.gov/documents/deq/wrd-policy-045-dredged-material-on-bottomlands\\_489492\\_7.pdf](https://www.michigan.gov/documents/deq/wrd-policy-045-dredged-material-on-bottomlands_489492_7.pdf).

Other state permitting requirements may apply for the placement of dredged material. Under Shorelands Protection and Management, Part 323 of the Natural Resources and Environmental Protection Act,<sup>54</sup> areas where the long-term erosion rate is greater than one foot per year averaged over a 15-year period may be designated as “high risk areas.”<sup>55</sup> In designated “high-risk areas,” property owners must apply for permits for any activities. A permit may also be required for “environmental areas” designated under part 323.<sup>56</sup> Environmental areas are areas that the department deems necessary for the preservation and maintenance of fish or wildlife.<sup>57</sup> Part 303 of NREPA, Wetlands Protection, requires a permit for dredge and fill activities in wetlands.<sup>58</sup> Under the Sand Dune Protection and Management Program, Critical Dune Areas require an additional permit for activities that alter the contour or significantly change the physical characteristics of a critical dune area.<sup>59</sup> “Critical dune area” is defined as “a geographic area designated in the ‘atlas of critical dune areas’ dated February 1989 that was prepared by the department of natural resources.”<sup>60</sup> Local units of government may also assume authority for the protection and management of critical dune areas, as long as their requirements are as stringent as state requirements. An application for a permit must be filed with the local government for activities within a critical dune area.<sup>61</sup>

## Wisconsin

In Wisconsin, the Wisconsin Department of Natural Resources (WDNR) oversees the state permitting process. Dredge and fill activities require a federal § 404 CWA permit, as well as the required state water quality certification. The U.S. Army Corps of Engineers and WDNR have a joint permit application.<sup>62</sup> Most applications are submitted electronically through the WDNR E-APP portal, which is then automatically forwarded to the Corps. Wisconsin must issue a § 401 water quality certificate before the Corps may grant the permit. Without a permit, it is prohibited to deposit any material where no bulkhead line has been established or beyond a lawfully established bulkhead line.<sup>63</sup> A bulkhead is a line set along the shore by a municipality for the purpose of defining the Ordinary High Water Mark.<sup>64</sup>

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<sup>54</sup> MICH. COMP. LAWS ANN. § 324.32301 *et seq.*

<sup>55</sup> MICH. ADMIN. CODE r 281.22; MICH. COMP. LAWS ANN. § 324.32301.

<sup>56</sup> MICH. ADMIN. CODE r 281.23.

<sup>57</sup> *Id.*

<sup>58</sup> MICH. COMP. LAWS ANN. § 324.30304.

<sup>59</sup> *Id.* § 324.35301.

<sup>60</sup> *Id.*

<sup>61</sup> *Id.* § 324.35304.

<sup>62</sup> U.S. ARMY CORPS OF ENG'RS, *Water Resources Application*, <http://www.mvp.usace.army.mil/Portals/57/docs/regulatory/Website%20Organization/WI%20Joint%20Application%202014.pdf>.

<sup>63</sup> WIS. STAT. ANN. § 30.12.

<sup>64</sup> WIS. STAT. ANN. § 30.11.

WDNR encourages reuse of dredged material to “minimize environmental harm resulting from a dredging project.”<sup>65</sup> Dredged materials are defined as “any solid waste removed from the bed of any surface water.”<sup>66</sup> WDNR rules outline the process for permit applicants to collect and analyze data on the project’s sediments.<sup>67</sup>

## How is sediment/dredged materials characterized in water quality standards for each state? At what threshold is it considered a contaminant?

### Illinois

All discharges of dredged material require § 401 water quality certification. The Illinois Pollution Control Board, a sister agency to the Illinois EPA, has promulgated water quality standards in § 35 of the Illinois Administrative Code. Testing is required for material that will be discharged into waters of the state are located at Ill. Admin. Code tit. 35, § 395.101 *et. seq.*

Materials are exempt if:

- a) *The material is composed predominantly of sand, gravel or other naturally occurring sedimentary material with particle sizes larger than silt, as defined in Section 395.205 (a) (1).*
- b) *The characteristics of the material at the disposal site are similar to the excavated material.*
- c) *The excavation site is removed from known sources of pollution, toxic contamination and incidence of spills.*
- d) *The discharge does not occur in waters of Lake Michigan or any waters determined to be nondegradation waters.*
- e) *The discharge does not interfere with or threaten municipal or other public and food processing water supply sources.*
- f) *The discharge is adjacent to the disposal site and the quality of the discharge is similar to natural background conditions.*<sup>68</sup>

Materials not exempt under § 395.204 will be subject to the following testing procedures. Details for these procedures are found in the joint application form.

- 1) *Particle size analysis (or sand/fine split) using a No. 230 U.S. sieve. For material resulting in 20 percent or greater passage of the sieve, resuspension testing is required.*
- 2) *For hydraulically moved material, or mechanically moved material which is placed in the waterway, a supernatant test for nonsettleable material is required. Analysis*

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<sup>65</sup> WIS. ADMIN. CODE NR § 347.01.

<sup>66</sup> *Id.* § 500.03 (71).

<sup>67</sup> *Id.* § 347.06(1).

<sup>68</sup> Ill. Admin. Code tit. 35, § 395.204.

*will be made for total suspended solids (TSS), total volatile solids (TVS), ammonia-nitrogen as N, lead (total), and zinc (total) for both the supernatant and receiving water.*

*3) For mechanically moved material which is placed outside of the waterway, testing of the filtered elutriate is required. Analysis will be made for ammonia-nitrogen as N, lead (total), and zinc (total) for both the elutriate and receiving water.*

*b) Analysis for additional parameters and detailed testing for suspended particulates may be necessary to determine pollutional characteristics of the material with time, and the effectiveness of proposed facilities for treatment and settling. Information concerning disposal practices and procedures, and the engineering plans and specifications of the disposal site will be required to supply data on volume, retention time estimates, site location, berm grading, slope stabilization, and discharge structures.*

*c) Previous tests on materials at or near the activity site may be submitted as supplemental information. This will not be done in lieu of or as an exemption from the testing requirements listed above.<sup>69</sup>*

The agency will not certify material that will violate state water quality standards, other applicable Pollution Control Board regulations, or sections 301, 302, 303, 306, and 307 of the CWA or interfere with existing water uses, particularly public recreation on affected waters and public and food processing water supply sources.<sup>70</sup>

## **Indiana**

The Indiana DEM Office of Water Quality oversees permitting for dredged sediment fill activities for Indiana waters. Before any discharge of fill associated with dredging into state waters, the Office of Water Quality must issue a § 401 water quality certification. State water quality standards for Great Lakes within the state are located at 327 Ind. Administrative Code § 2-1.5-1 *et. seq.* “The goal of the state is to restore and maintain the chemical, physical, and biological integrity of the waters of the state within the Great Lakes system. In furtherance of this primary goal, it is the public policy of the state that the discharge of: 1) toxic substances in toxic amounts be prohibited; and 2) persistent and bioaccumulating toxic substances be reduced or eliminated.”<sup>71</sup>

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<sup>69</sup> *Id.* § 395.204.

<sup>70</sup> *Id.* § 395.401.

<sup>71</sup> 327 IND. ADMIN. CODE 2-1.5-3. See 327 IND. ADMIN. CODE 2-1.5-8 and 2-1.5-16 for specific criteria.

## Michigan

The Water Resources Division has developed a policy for sediment testing for the placement of dredged materials on bottomlands.<sup>72</sup> Placement of dredged material on Great Lakes bottomlands for the purpose of beach nourishment may be approved when:

1. The average mass percentage retained on the U.S. Standard Sieve Number 200 is 90% of the sample or greater (i.e., 90% or more of the sample is sand or coarser);
2. Sand at the proposed beach nourishment site is of similar grain size to the proposed dredged material as determined under the criteria above;
3. Proposed dredged material is not contaminated with dioxins or furans, if chemical analysis is required;
4. Proposed placement of dredged material is at or landward of the most landward 6-foot depth contour; or proposed placement of dredged material is at previously authorized location and depth out to, but not lakeward of, the most landward 12-foot depth contour.<sup>73</sup>

If sediment to be dredged is 90% sand or greater and the project is not located in a Dioxin and Furans Test Area, sediment contaminant testing is not required.<sup>74</sup> Sediment testing may be waived if one of the following conditions is met:

- The applicant provides approved previous test data from the site, or from a site immediately adjacent. The test data must include certain parameters. For all analytical testing of dredging projects of less than 10,000 cubic yards, applicant must sample sediments from 6 discrete locations within the proposed dredge area. If more than 10,000 cubic yards of dredging is proposed, at least 1 additional sample shall be obtained and analyzed for each 10,000 cubic yards of additional material proposed for dredging. WRD district staff may mandate specific sampling criteria, locations, and/or depth intervals based on their site-specific knowledge. The default analytical parameters include nine heavy metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel selenium, and zinc), polycyclic aromatic hydrocarbons, and biochemical oxygen demand. Additionally, phosphorus will be required if the proposed dredge spoil disposal location is in a surface water of the state as defined in rules. PCBs also included for certain waters. WRD staff can alter parameters on project-specific basis.<sup>75</sup>
- The total dredge volume is 2,000 cubic yards or less and the applicant has agreed to permit conditions in an applicable general permit or minor project category that isolate the area to be dredged and prevent downstream movement of sediment, or the project area is not within an area of known or suspected contamination or in the dioxins or furans test area.

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<sup>72</sup> Mich. Dept of Env'tl. Quality, *Sediment Testing for Dredging Projects*, (April 13, 2018) [https://www.michigan.gov/documents/deq/deq-wrd-greatlakes-dredging-SedimentTestingDredgingProjects\\_WRD-048\\_621721\\_7.pdf](https://www.michigan.gov/documents/deq/deq-wrd-greatlakes-dredging-SedimentTestingDredgingProjects_WRD-048_621721_7.pdf).

<sup>73</sup> *Id.*

<sup>74</sup> *Id.*

<sup>75</sup> *Id.*

- The dredge volume is greater than 2,000 cubic yards but WRD staff determines there is minimal risk to aquatic resources.<sup>76</sup>

Section 401 water quality criteria and Part 31 regulations also are used to assist in evaluating in-water disposal and placement options. “Toxic substance” is defined as “a substance, except for heat, that is present in a sufficient concentration or quantity that is or may become harmful to plant life, animal life, or designated uses,” and the department has identified specific toxic substances.<sup>77</sup> For example, the priority pollutant and hazardous chemicals specified in the provisions of 40 C.F.R. §122.21, Appendix D (1990) and the pollutants of initial focus specified in the provisions of 40 C.F.R. Part 132 (1995), water quality guidance for the Great Lakes system.<sup>78</sup> The open water disposal of dredge materials that are contaminated with toxic substances as defined in § 323.1205 is prohibited.<sup>79</sup>

### *Wisconsin*

For use in the littoral zone, dredged material must be evaluated following NR 347 for sediment analysis. The WDNR requires applicants to collect and analyze data of the project’s sediments.<sup>80</sup> The WDNR must compare grain-size analysis results of the proposed dredged material and the beach.<sup>81</sup> The department may allow beach nourishment disposal if: “the average percentage of silt plus clay passing a #200 sieve or less than 0.74 mm diameter must not exceed the average in situ beach material by 15%,” and color cannot be significantly different.”<sup>82</sup>

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<sup>76</sup> *Id.*

<sup>77</sup> MICH. ADMIN. CODE R 323.1205.

<sup>78</sup> *Id.* § 323.1205.

<sup>79</sup> MICH. COMP. LAWS ANN. § 324.3109c.

<sup>80</sup> *Id.* § 347.07.

<sup>81</sup> *Id.*

<sup>82</sup> WIS. ADMIN. CODE NR § 347.07.

## Beach Renourishment

### Are there any federal permitting requirements for beach renourishment?

There are no specific permitting requirements for beach renourishment projects; rather, they are regulated generally under § 404 of the Clean Water Act and § 10 of the RHA.

### What are the state (Wisconsin, Illinois, Indiana, and Michigan) laws and regulations that address beach renourishment?

#### Illinois

The IDNR's Part 3704 Rules allows the placement of fill in Lake Michigan for beach nourishment. For beach nourishment projects, the IEPA uses the sediment testing procedures outlined above.

#### Indiana

Beach renourishment is permitted as a type of dredging project (requirements outlined in dredging overview.) The IDNR has issued a general authorization for beach nourishment within Indiana Dunes National Lakeshore or Indiana Dunes State Park.<sup>83</sup> "Beach nourishment" is defined as "the placement of sand to mitigate beach erosion: (1) within the ordinary high watermark of Lake Michigan; or (2) within such proximity to the shoreline of Lake Michigan that wind or water erosion is likely to transport sand into the lake."<sup>84</sup> A person who qualifies for the general authorization may place sand for beach nourishment, either within or outside the ordinary high water mark (OHWM), without obtaining a state navigable waterways fill permit. Those who wish to use the general authorization must provide a letter to the IDNR providing information on: the site of origin of the sand; the site of deposit, which must be either in the Indiana Dunes State Park or the Indiana Dunes National Lakeshore; and other pertinent information, including any testing performed on the sand.<sup>85</sup>

The IDNR is also authorized to impose a "royalty fee" for the removal of dredge materials from the bed of Lake Michigan.<sup>86</sup> The fees must be deposited in the Land and Waterways Resource Fund, which is used by the state to acquire and develop outdoor recreation areas.<sup>87</sup> The royalty fee may be waived if any suitable dredge materials are placed along the

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<sup>83</sup> *Id.* § 6-6-1.

<sup>84</sup> *Id.* § 6-2-3.

<sup>85</sup> *Id.* § 6-6-3.

<sup>86</sup> IND. CODE ANN. § 14-29-3-2.

<sup>87</sup> *Id.* § § 14-25-10-4.



Lake Michigan shoreline as beach nourishment for the beneficial use of the general public.<sup>88</sup>

The Indiana Sand Nourishment Fund allows coastal communities to obtain funds through their local state legislators for beach nourishment activities. Activities may include: the deposit of sand along the coast of Lake Michigan in Indiana; the design and establishment of systems that cause sand to be deposited along the coast of Lake Michigan in Indiana; and the prevention or reduction of the degradation of sand along the coast of Lake Michigan in Indiana.<sup>89</sup>

## *Michigan*

Beach renourishment is permitted as a type of dredging project (requirements outlined in dredging overview above.) However, the state has specific requirements for the use of dredged sediment for beach nourishment (outlined in section above.) As noted in the dredging overview, the Michigan Submerged Lands Act requires a state permit for altering the bottomlands.<sup>90</sup> This includes beach renourishment, among other activities. Certain shoreline management activities between the ordinary high water mark and the water's edge are exempt from this permit requirement: leveling of sand, removal of vegetation, grooming of soil, or removal of debris in an area of unconsolidated material predominantly composed of sand, rock, or pebbles.<sup>91</sup>

Other state or local permitting requirements apply for environmentally sensitive areas. Under the Sand Dune Protection and Management Program, Critical Dune Areas require additional permits.<sup>92</sup> Local units of government also have the opportunity enact ordinances to protect and manage critical dune areas. An application for a permit must be filed with the local government for activities within a critical dune area.<sup>93</sup>

## *Wisconsin*

Beach renourishment is permitted as a type of dredging project (requirements outlined in dredging overview.) However, the state has specific requirements for the use of dredged sediment for beach nourishment (outlined in section above.) In Wisconsin, beach nourishment disposal is defined as “the disposal of dredged material on the beaches or in the water landward from the ordinary high-water mark of Lakes Michigan and Superior for the purpose of adding, replenishing or preventing erosion of beach material.”<sup>94</sup>

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<sup>88</sup> 312 IND. ADMIN. CODE 6-5-8.

<sup>89</sup> IND. CODE ANN. § 14-25-12.

<sup>90</sup> MICH. COMP. LAWS ANN. § 324.32512.

<sup>91</sup> MICH. COMP. LAWS ANN. § 324.32512; MICH. ADMIN. CODE r. 322.1008.

<sup>92</sup> MICH. COMP. LAWS ANN. § 324.35301.

<sup>93</sup> *Id.* § 324.35304.

<sup>94</sup> WIS. ADMIN. CODE NR § 347.03.



## How does the Public Trust Doctrine impact shoreline management in the four states?

The public trust doctrine is a common law doctrine that provides the state holds title to submerged land under navigable waters in trust for the benefit of the public. Under the equal footing doctrine, all states acquired title to public trust lands upon entering the union. Each state's law regarding the doctrine has developed independently and, therefore, differs from state to state. The doctrine can be used as a management tool, as it requires states to protect public use of the shoreline for certain uses.

### Illinois

Illinois holds the bed of Lake Michigan in trust for the people of Illinois. In Illinois, the separation between private and public property along the Lake Michigan shoreline is the "line at which the water usually stands when free from disturbing causes" and not the OHWM.<sup>95</sup> The state has recognized the traditional purposes of fishing, navigation, and commerce. The State of Illinois was at the center of a seminal U.S. Supreme Court opinion recognizing the public trust doctrine. In *Illinois Central*, the Court held that the state cannot "abdicate its trust over property in which the whole people are interested...so as to leave them entirely under the use and control of private parties."<sup>96</sup> Illinois courts have continued to hold that control over public lands cannot be relinquished unless the public interest in those lands is protected.<sup>97</sup>

The Rivers Lakes and Streams Act requires a permit from the IDNR to perform work in public waters.<sup>98</sup> While the IDNR allows the placement of fill in Lake Michigan for the purpose of bank, shore, or bluff protection and beach nourishment it does not cede ownership of the bed of Lake Michigan occupied by such fill. The state prohibits any activity that would result in an obstruction to, or interference with, the navigability of any public body of water.<sup>99</sup> If a project would have a long-term impact on the public's use of the body of water, a permit will only be issued if the project is designed to minimize the impact on public interests and there is a public benefit from the project.<sup>100</sup>

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<sup>95</sup> *Brundage v. Knox*, 117 N.E. 123 (1917).

<sup>96</sup> *Illinois Cent. R. Co. v. State of Illinois*, 146 U.S. 387, 453(1892).

<sup>97</sup> *People ex rel. Scott v. Chicago Park Dist.*, 360 N.E.2d 773 (1976); *Friends of the Parks v. Chicago Park Dist.*, 160 F. Supp. 3d 1060, 1066–67 (N.D. Ill. 2016).

<sup>98</sup> 615 ILL. COMP. STAT. ANN. 5/18.

<sup>99</sup> *Id.* § 3704.90.

<sup>100</sup> *Id.*

## Indiana

In 2018, the Indiana Supreme Court ruled that the state owns the bed of Lake Michigan up to the “natural” ordinary high water mark (OHWM), including temporarily exposed shores.<sup>101</sup> The court recognized that in addition to the traditional public trust uses of navigation, commerce, and fishing, the state must also protect the public’s right to walk below the OHWM.

The state has several laws related to using the public trust for shoreline management, although none are specifically related to beach renourishment projects on Lake Michigan. Before issuing a license, DNR must consider the public trust and the likely impact upon the applicant and other affected persons, including the accretion or erosion of sand or sediments.<sup>102</sup> If a project encroaches on public trust rights, the Department of Natural Resources must deny or give conditional approval for licenses for the placement of permanent structures in Lake Michigan.<sup>103</sup> The PTD for freshwater lakes other than Lake Michigan is codified at Ind. Code Ann. § 14-26-2-5 (c). The Department of Natural Resources must consider public trust rights when issuing permits for these lakes.<sup>104</sup>

## Michigan

In Michigan, the public trust boundary is the OHWM, although land may be privately owned down to the water’s edge. For example, the public may walk on the shore up to the OHWM, even though the land in question is privately owned. In addition to the traditional public trust uses of navigation, commerce, and fishing, the Michigan Supreme Court has held that the public has a right to walk along the shores of the Great Lakes up to the OHWM.<sup>105</sup> The DEQ must consider the impact on the public trust when reviewing permit applications to construct on or occupy Great Lakes bottomlands.<sup>106</sup>

## Wisconsin

The Wisconsin Constitution is the basis of the public trust doctrine in the state, declaring navigable waters of the state open to the public.<sup>107</sup> Courts in Wisconsin have ruled that public trust uses not only include fishing, navigation, and commerce but also “hunting,

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<sup>101</sup> *Gunderson v. State*, 90 N.E.3d 1171 (Ind. 2018).

<sup>102</sup> 312 IND. ADMIN. CODE 6-1-1.

<sup>103</sup> *Id.* § 6-8-3(c).

<sup>104</sup> IND. CODE ANN. § 14-26-2-23(c).

<sup>105</sup> *Glass v. Goeckel*, 703 N.W.2d 58, 71 (2005).

<sup>106</sup> MICH. COMP. LAWS ANN. § 324.32502; R 322.1011.

<sup>107</sup> Wis. Const. art. IX, § 1.

recreation, and scenic beauty.”<sup>108</sup> The public trust boundary is the OHWM. The OHWM has been defined by Wisconsin courts as “the point on the bank or shore up to which the presence and action of the water is so continuous as to leave a distinct mark either by erosion, destruction of terrestrial vegetation, or other easily recognized characteristic.”<sup>109</sup> The Wisconsin Supreme Court ruled that the geographical reach of the public trust does not extend to non-navigable wetlands.<sup>110</sup> Under state law, structures or deposits in navigable waters must not “materially obstruct navigation” and will not “be detrimental to the public interest.”<sup>111</sup> “Consideration under the “public interest” standard includes potential impacts on habitat, wetlands, natural scenic beauty, and navigation and its incidents, such as fishing, boating and swimming.”<sup>112</sup>

### **Is there any language in state laws or regulations that addresses “emergency” shoreline management activities (e.g., resulting from storm damage)?**

#### ***Illinois***

“Regulation of Public Waters” rules pursuant to the Rivers, Lakes, and Streams Act allow IDNR to issue an emergency permit “if harm to life or loss of property is likely to occur if initiation of the activity is delayed.”<sup>113</sup>

#### ***Indiana***

The IDNR director may authorize emergency construction activities in Lake Michigan if the division director finds the action is supported by extraordinary circumstances.<sup>114</sup> There must be an “imminent risk of harm to public safety or major damage to property” and at least one of the following conditions:

- No erosion protection structure is present at the site.
- A failure or significant structural deterioration of an existing erosion protection structure has occurred. Examples include the following:
- Erosion of the lake bottom has occurred adjacent to a sheet steel wall.
- Stones in a rock revetment have shifted.
- Major shoreline erosion has occurred.
- A bluff face is excessively steep and threatens mass slumping.

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<sup>108</sup> *Wisconsin's Env'tl. Decade, Inc. v. Dep't of Nat. Res.*, 271 N.W.2d 69, 72 (1978).

<sup>109</sup> *Diana Shooting Club v. Husting*, 145 N.W. 816, 820 (1914).

<sup>110</sup> *Rock-Koshkonong Lake Dist. v. State Dep't of Nat. Res.*, 833 N.W.2d 800, 821 (Wis. 2013).

<sup>111</sup> WIS. STAT. ANN. § 30.12.

<sup>112</sup> Wis. Dept. of Natural Res., *Waterway Protection: The Public Trust Doctrine*, [https://dnr.wi.gov/topic/waterways/about\\_us/doctrine.htm](https://dnr.wi.gov/topic/waterways/about_us/doctrine.htm).

<sup>113</sup> 17 ILL. ADMIN. CODE § 3704.100.

<sup>114</sup> 312 IND. ADMIN. CODE 6-7-1.

- Without the construction, there would be a likelihood of significant harm to the environment or to public health and safety.<sup>115</sup>

## Michigan

The Submerged Lands Act states that the Michigan Department of Environmental Quality may issue a permit 20 days after certain parties are notified. The Act allows the MDEQ to issue a conditional permit before the expiration of the 20-day period if emergency conditions warrant a project to protect property or public health, safety, or welfare.<sup>116</sup>

## Wisconsin

Temporary emergency material may be placed to control erosion on a Great Lakes waterbody to protect a structure or infrastructure without a permit if the landowner meets certain guidelines. The landowner must make the request in writing.<sup>117</sup> The landowner must identify “where the temporary material will be placed; the type and amount of temporary materials that will be used; and how the temporary material will be placed.”<sup>118</sup> The following restrictions apply:

- No temporary material will be allowed on the bluff face.
- The temporary material may not exceed 5 feet when measured from the base of the slope.
- The material may not extend more than 10 feet waterward of the base of the slope.
- Any rock, stone or heavy concrete must consist of clean, large, non-flat, angular, interlocking pieces.
- Sandbags should have clean fill and be made of appropriate material to prevent bursting. Concrete rubble and other construction debris may not be used.

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<sup>115</sup> *Id.* 6-7-4.

<sup>116</sup> MICH. COMP. LAWS ANN. § 324.32514.

<sup>117</sup> Wis. Dep’t Natural Res., *Factsheet for Landowners, Placing Temporary Emergency Erosion Control Structures*, (May 2016)

[https://dnr.wi.gov/topic/waterways/shoreline/documents/CoastalFactSheet2\\_temp.pdf](https://dnr.wi.gov/topic/waterways/shoreline/documents/CoastalFactSheet2_temp.pdf).

<sup>118</sup> *Id.*

## Erosion

What are the state (Wisconsin, Illinois, Indiana, and Michigan) laws and regulations that address shoreline erosion?

- *How does each state address the permitting, maintenance, and construction of new and/or removal of hard structures?*
- *How does each state address green infrastructure?*
- *What state set-back policies exist for each of the states and how are they implemented? (Zoning or other local regulations to ensure appropriate setback from hazards (e.g. beach/dune protection regulations, restrictions on lakeward encroachment of development, mandatory setbacks from unstable/receding bluffs)*

### Illinois

Dredge and fill activities require a federal § 404 CWA permit, as well as a permit from the Illinois Department of Natural Resources, Office of Water Resources. An Illinois Environmental Protection Agency water quality certification is also required for both permits. The agencies use a joint application.<sup>119</sup>

#### Hard Structures

The Illinois DNR issues two types of shore protection permits:

- General Permit No. 1-LM: This permit is issued for to expedite review of permits for certain projects in Lake Michigan. The permit is for minor shore parallel protection projects that do not exceed a length of 300 feet and meet the special conditions of the general permit. Examples of these projects would be stone revetments or steel sheet pile bulkheads built at the toe of a bluff. This permit does not require the issuance of a public notice but does require IEPA approval.<sup>120</sup>
- All other types of shore protection projects proposed within or adjacent to the waters of Lake Michigan require an Individual Permit from the Department. Examples of these types of projects include but are not limited to: revetments longer than 300 feet, seawalls/bulkheads longer than 300 feet, groins, breakwaters/offshore structures, beach nourishment, piers, and modifications to existing structures.<sup>121</sup>

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<sup>119</sup> Ill. Dept. of Natural Res., *Permit Application and Instructions*, <https://www.dnr.illinois.gov/WaterResources/Pages/PermitApplicationandInstructions.aspx>.

<sup>120</sup> Ill. Dept. of Natural Res., *General Permit 1-LM*, <https://www.dnr.illinois.gov/WaterResources/Documents/ResmanGeneralPermit1-LM.pdf>.

<sup>121</sup> Ill. Dept. of Natural Res., *Guidelines for Ill. Dept. of Natural Res. Permits for Shore Protection Projects in Lake Michigan*, (2015) <https://www.dnr.illinois.gov/WaterResources/Documents/Lake%20Michigan%20Permit%20Guidelines.pdf>.

### *Green Infrastructure*

No specific requirements found.

### *Setbacks*

There is not a statewide setback in Illinois. Much of the Lake Michigan shoreline in Illinois is hardened. Local governments manage shorelines through zoning ordinances.

## *Indiana*

These activities would require a § 404 permit from the Corps. The IDNR and the DEM Office of Water Quality also requires permits. The activities must be consistent with DNR rules for shoreline structures.

### *Hard Structures*

A person who wishes to place a permanent structure on or within the ordinary high watermark of Lake Michigan must file a license application with the IDNR. “Permanent structure” means a: marina, seawall, breakwater, detached breakwater, jetty, boat launch, z wall, binwall, sinusoidal wall, bulkhead, groin, grout tube, cable, pipeline, wharf, pier, piling, rock revetment or similar structure.<sup>122</sup>

The applicant must include plans, drawings, other specifications reasonably required for the department to determine whether placement of the permanent structure will be permitted. The applicant must demonstrate the permanent structure will not:

- 1) Unreasonably impair the navigability of the lake or an adjacent navigable waterway.
- 2) Cause significant harm to the environment.
- 3) Pose an unreasonable hazard to life or property.

The applicant must evaluate the likely impact of the permanent structure on coastal dynamics, including:

- 1) Shoreline erosion and accretion.
- 2) Sand movement within the lake.
- 3) The interaction with existing structures.<sup>123</sup>

### *Green Infrastructure*

No specific requirements found.

### *Setbacks*

The Indiana Coastal Program has designated erosion as one of six “Areas of Particular Concern” to help manage the state shoreline.<sup>124</sup> The state developed three hazard

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<sup>122</sup> 312 IND. ADMIN. CODE 6-8-1(c).

<sup>123</sup> *Id.*

mitigation model ordinances to cover industrialized shoreline, private riparian shoreline, and natural public shoreline that stretch along the counties along Lake Michigan.<sup>125</sup> The ordinances may be integrated into current municipal policies or adopted as a Shoreline Protection Overlay Zone.<sup>126</sup> The ordinances often pertain to setback, encroachment, impacts of fill, and vegetation removal.<sup>127</sup>

## *Michigan*

As noted in the dredging section, Michigan is one of two states to administer § 404 of the federal CWA program. There is a joint permit application for the Corps and MDEQ that would be required for the installation or removal of hard structures.<sup>128</sup> This permit application would be used for permits required under the statutes discussed below.

### *Hard Structures*

The Michigan Submerged Lands Act requires a state permit for altering the bottomlands, which would include the placement or removal of hard structures.<sup>129</sup> The DEQ must consider adverse environmental impacts of the permit.<sup>130</sup> Certain “minor” projects, such as the removal of qualifying manmade structures, the replacement of an existing seawall, and the placement of riprap, may qualify for an expedited permit process from the department.<sup>131</sup>

Under the Sand Dune Protection and Management Program, shore protection structures in Critical Dune Areas require permits.<sup>132</sup> Under the Sand and Dune Protection and Management Program, local units of government may also develop ordinances to manage critical dune areas.<sup>133</sup> An application for a permit must be filed with the local government for activities within a critical dune area.<sup>134</sup>

### *Green Infrastructure*

No specific requirements found.

### *Setbacks*

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<sup>124</sup> U.S. Army Corps of Eng’rs, *Lake Michigan National Shoreline Management Study* at 87 (2017).

<sup>125</sup> *Id.*

<sup>126</sup> *Id.*

<sup>127</sup> *Id.*

<sup>128</sup> MICH. DEP’T OF ENV’T, GREAT LAKES, AND ENERGY, [https://www.michigan.gov/deq/0,4561,7-135-3313\\_71520\\_24403---,00.html](https://www.michigan.gov/deq/0,4561,7-135-3313_71520_24403---,00.html).

<sup>129</sup> MICH. COMP. LAWS ANN. § 324.32512.

<sup>130</sup> MICH. ADMIN. CODE R 322.1015

<sup>131</sup> MICH. COMP. LAWS ANN. § 324.32512a.

<sup>132</sup> *Id.* § 324.35301.

<sup>133</sup> *Id.* § 324.35312.

<sup>134</sup> *Id.* § 324.35304.

The Shorelands Management Act regulates permanent structures in “high risk areas.”<sup>135</sup> Areas where the long-term erosion rate is greater than one foot per year averaged over a 15-year period may be designated as “high risk areas” and the department will designate a setback line.<sup>136</sup> The projected recession distance must be based on a projected 30-year period of recession for small permanent structures and a projected 60-year period for large permanent structures. An additional 15 feet must be included in the projected recession distance to provide protection from severe short-term erosion losses.<sup>137</sup> The setback for structures may be waived if certain requirements are met.<sup>138</sup> MDEQ-approved local government zoning ordinances may regulate a high-risk area, a flood risk area, or an environmental area.<sup>139</sup> In the absence of a department-approved local program, permanent structures in this area would require a permit from the department.<sup>140</sup>

## *Wisconsin*

Dredge and fill activities require a federal § 404 CWA permit. The U.S. Army Corps of Engineers and the Wisconsin Department of Natural Resources (WDNR) have a joint permit application.<sup>141</sup>

### *Hard Structures*

Shore erosion structures are regulated by the state under Wis. Stat. Ann. § 30.12. A permit is required for erosion control structures, with exceptions. Riparian owners are exempt if the structure or material is located in an area other than an area of special natural resource interest, does not interfere with the riparian rights of other riparian owners, and the project meets length and material requirement as specified in the statute.<sup>142</sup> The department may require a permit if necessary to avoid: significant adverse impacts to the public rights and interests; environmental pollution, as defined in s. 299.01(4); material injury to the riparian rights of any riparian owner.<sup>143</sup>

The department has developed general permits for seawall replacement and riprap replacement, repair, and placement of riprap on the bed or bank of a navigable water adjacent to an owner’s property in an amount up to and including 300 continuous feet in a Great Lakes water body.<sup>144</sup> In issuing the permit, the department may impose conditions on

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<sup>135</sup> *Id.* § 324.32301.

<sup>136</sup> MICH. ADMIN. CODE R 281.22.

<sup>137</sup> *Id.* R 281.22(2).

<sup>138</sup> *Id.* R 281.22(11).

<sup>139</sup> MICH. COMP. LAWS ANN. § 324.32311.

<sup>140</sup> MICH. ADMIN. CODE R 281.22.

<sup>141</sup> U.S. Army Corps of Eng’rs, Joint Application, <http://www.mvp.usace.army.mil/Portals/57/docs/regulatory/Website%20Organization/WI%20Joint%20Application%202014.pdf>.

<sup>142</sup> WIS. STAT. ANN. § 30.12(1g)(i)-(jm).

<sup>143</sup> *Id.* § 30.12(2m).

<sup>144</sup> *Id.* § 30.12(3).



the replacement of a seawall located in an area of special natural resource interest, as long as the conditions do not prohibit the installation or repair of the seawall.<sup>145</sup>

### *Green Infrastructure*

In Wisconsin, riparian owners are exempt from obtaining a state permit for a biological shore erosion control structure<sup>146</sup> if the structure or material is located in an area other than an area of special natural resource interest and does not interfere with the riparian rights of other riparian owner.<sup>147</sup> Otherwise, an individual permit would be required unless the activities are allowed under an existing permit.

### *Setbacks*

Wisconsin DNR regulations require a setback of 75 feet from the ordinary high-water mark of any navigable waters to all buildings and structures.<sup>148</sup> OHWM is defined as “the point on the bank or shore up to which the presence and action of water is so continuous as to leave a distinct mark either by erosion, destruction of terrestrial vegetation or other easily recognized characteristic.”<sup>149</sup> Vegetative buffers are required within 35 feet of the OHWM except for a viewing and access corridor that runs 35 feet wide for every 100 feet of shoreline frontage.<sup>150</sup> A county may allow routine maintenance of vegetation and other approved vegetative management activities within the vegetative buffer zone.<sup>151</sup> Counties must develop ordinances to regulate shorelands in unincorporated areas.<sup>152</sup> The shoreland ordinances may not be more restrictive than state standards.<sup>153</sup>

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<sup>145</sup> *Id.*

<sup>146</sup> In regulations pertaining to inland lakes (Lake Michigan is excluded), shore erosion control structure is defined as “a structure that relies solely on biological materials. Biological materials is defined as “living or organic materials that are biodegradable such as native grasses, sedges, forbs, shrubs and trees; live stakes and posts; non-treated wood; jute netting; fiber rolls and mats; logs; and branches.” WIS. ADMIN. CODE NR § 328.03.

<sup>147</sup> WIS. STAT. ANN. § 30.12(1g)(k).

<sup>148</sup> WIS. ADMIN. CODE NR § 115.05.

<sup>149</sup> *Diana Shooting Club*, 156 Wis. 271.

<sup>150</sup> WIS. ADMIN. CODE NR § 115.05(c)(2).

<sup>151</sup> *Id.*

<sup>152</sup> WIS. STAT. ANN. § 59.692 (1c).

<sup>153</sup> *Id.* § 59.692 (1d)(a).

## Are there any shoreline management examples from other states (Great Lakes or salty coasts) that could inform the Lake Michigan approach?

### South Carolina's Emergency Orders

Shoreline management activities are often needed quickly after storm events. Waiting on a standard permit process and review could mean further impacts to the shoreline, threatening safety or property loss. South Carolina has developed a process to facilitate response activities in such cases.

South Carolina and the Corps have a joint permit application for dredge and fill activities.<sup>154</sup> The USACE Charleston District has issued an RGP for emergency oceanfront beach restoration. An emergency situation is “when there is an imminent threat to public health and safety or the environment, an unacceptable hazard to life, or which would result in significant loss of property.”<sup>155</sup> There are also RGPs for minor discharges of fill material<sup>156</sup> and for bank stabilization<sup>157</sup>

The Coastal Tidelands and Wetlands Act (CTWA)<sup>158</sup> authorizes the South Carolina Department of Health and Environmental Control Office of Ocean and Coastal Resource Management (DHEC) to develop and institute a comprehensive beach erosion control policy and to permit the installation and removal of erosion control structures.<sup>159</sup> The state has specific measures in place to respond to emergency storm events. Before or after a storm event, a permit is not required for sandbags, sand scraping, and minor renourishment if DHEC or authorized municipal government officials issue Emergency Orders allowing the activities.<sup>160</sup> The orders must be in the interest of protecting the health, safety or resources of state residents.<sup>161</sup>

Sandbags, sand scraping, and minor nourishment may only be used temporarily for existing habitable structures and critical infrastructure if the structure is in imminent danger and conditions meet the definition of emergency as defined in the code. “Emergency” is defined as “any unusual incident resulting from natural or unnatural causes which endanger the health, safety, or resources of the residents of the State, including damages or erosion to

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<sup>154</sup> U.S. Army Corps of Eng'rs, *Joint Application*, [http://www.sac.usace.army.mil/Portals/43/docs/regulatory/Joint\\_Federal\\_State\\_Application\\_with\\_APO\\_List\\_and\\_Map\\_Requirement.pdf?ver=2016-11-21-124200-683](http://www.sac.usace.army.mil/Portals/43/docs/regulatory/Joint_Federal_State_Application_with_APO_List_and_Map_Requirement.pdf?ver=2016-11-21-124200-683).

<sup>155</sup> SAC 2014-0299 [http://www.sac.usace.army.mil/Portals/43/docs/regulatory/Emergency\\_Ocean\\_Front\\_Beach\\_Nourishment\\_GP\\_2015.pdf](http://www.sac.usace.army.mil/Portals/43/docs/regulatory/Emergency_Ocean_Front_Beach_Nourishment_GP_2015.pdf).

<sup>156</sup> S.C. CODE ANN. REGS. 00765. (50 CY maximum fill).

<sup>157</sup> S.C. CODE ANN. REGS. 00757. (Artificial-1500 ft maximum length; Bioengineering-3000 ft).

<sup>158</sup> S.C. CODE ANN. § 48 39 10 *et seq.*

<sup>159</sup> *Id.* § 48-39-120.

<sup>160</sup> *Id.* § 48-39-130(D)(1).

<sup>161</sup> *Id.*

any beach or shore resulting from a hurricane, storm, or other such violent disturbance.”<sup>162</sup> A structure is determined to be in imminent danger when the erosion comes within 20 feet of that structure.<sup>163</sup>

DHEC has developed specific guidelines for the use of the sandbags under emergency orders. For example, the maximum size for sandbags is one cubic yard and they must be placed parallel to the shoreline.<sup>164</sup> Property owners have 120 days to provide DHEC with evidence of an acceptable beach renourishment plan. If none is provided, the homeowner must remove the sandbags. If the plan is acceptable, a renourishment permit application must be submitted to DHEC within 18 months of the issuance of the emergency order. The sandbags may remain in place for up to 12 months after a permit is issued. If DHEC denies the renourishment permit application, the sandbags must be removed within 90 days of the final agency decision. If a renourishment permit application is not submitted to DHEC within 18 months of the issuance of the emergency order, the emergency order will expire and the sandbags must be removed at the property owner’s expense.<sup>165</sup>

DHEC has also developed conditions for sand scraping and beach nourishment under emergency orders. For example, sand scraping may only be ordered and performed to protect existing structures. Sand scraping is not allowed in front of erosion control structures unless it can be proven that the erosion control structure is itself in danger of collapsing and is within ten feet of the habitable structure.<sup>166</sup> And, when issuing emergency orders for renourishment sand must originate from an upland source and be approved by DHEC as compatible in grain size and color with the native beach sand and should contain no more than a minimal amount of organic material.<sup>167</sup>

Other erosion-related provisions apply. Repair of an erosion control structure that is damaged less than 50% above grade is exempt from permitting.<sup>168</sup> Existing groins may be reconstructed, repaired, and maintained. New groins may only be allowed on beaches that have high erosion rates with erosion threatening existing development or public parks. In addition to these requirements, new groins may be constructed and existing groins may be reconstructed only in furtherance of an on-going beach renourishment effort that meets certain criteria.<sup>169</sup>

### Ohio’s Temporary Permits

Historically high water levels and recent storm events have left the Ohio Lake Erie shoreline vulnerable to severe erosion. To address the problem, Ohio has developed a

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<sup>162</sup> *Id.* § 48-39-10 (U).

<sup>163</sup> S.C. CODE ANN. REGS. 30-11.

<sup>164</sup> *Id.* 30-15(H)(3).

<sup>165</sup> *Id.* 30-15(H)(2).

<sup>166</sup> *Id.* 30-15(H)(4).

<sup>167</sup> *Id.* 30-15(H)(5).

<sup>168</sup> *Id.* 30-5(A)(11).

<sup>169</sup> *Id.* 30-15(G).

temporary permit for emergency erosion control structures. The process allows property owners to address damage more quickly than they would be able to under a standard permit.

In addition to a § 404 permit from the Corps, the construction or placement of any erosion control structures along or near the shore of Lake Erie requires a separate Shore Structure Permit (SSP) from the Ohio Department of Natural Resources Office of Coastal Management (ODNR).<sup>170</sup> SSPs authorize repairs for the life of the structure. ODNR also offers Temporary Shore Structure Permits (TSSPs) for emergency construction of new erosion control structures or for emergency repairs to existing unpermitted structures that are necessary to safeguard life, health, or property.<sup>171</sup>

TSSPs are intended for emergency situations where immediate action is necessary to address severe erosion damage. Examples of permitted structures include: stone revetments, concrete seawalls, and crib bulkheads.<sup>172</sup> ODNR has developed general guidelines for erosion control structures installed under a TSSP.<sup>173</sup> The department outlines suitable construction material, general guidelines for structure dimensions (length, width, height, and slope), and best management practices for successful erosion control projects.<sup>174</sup> TSSPs are valid for two years from the date of issuance, and permittees must agree to obtain a SSP from ODNR upon expiration of the temporary permit.<sup>175</sup> There is no permit fee for TSSPs.<sup>176</sup>

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<sup>170</sup> OHIO REV. CODE §1506.40.

<sup>171</sup> *Id.*

<sup>172</sup> Ohio DNR, *Temporary Shore Structure Permits FAQ*,

[http://coastal.ohiodnr.gov/Portals/coastal/pdfs/tssp/tssp\\_faq.pdf](http://coastal.ohiodnr.gov/Portals/coastal/pdfs/tssp/tssp_faq.pdf).

<sup>173</sup> Ohio DNR, *TSSP Project Guidance*,

[http://coastal.ohiodnr.gov/Portals/coastal/pdfs/tssp/TSSP\\_Project\\_Guidance.pdf](http://coastal.ohiodnr.gov/Portals/coastal/pdfs/tssp/TSSP_Project_Guidance.pdf).

<sup>174</sup> *Id.*

<sup>175</sup> Ohio DNR, *Temporary Shore Structure Permits FAQ*, *supra* note 174.

<sup>176</sup> *Id.*