



# Illinois Department of Natural Resources

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## **GUIDELINES FOR THE SUBMITTAL OF APPLICATIONS FOR ILLINOIS DEPARTMENT OF NATURAL RESOURCES, OFFICE OF WATER RESOURCES PERMITS FOR SHORE PROTECTION PROJECTS IN LAKE MICHIGAN**

### **Introduction**

Both private and public construction activities in Lake Michigan require Illinois Department of Natural Resources, Office of Water Resources (IDNR/OWR) authorization pursuant to the Rivers, Lakes and Streams Act of 1911 [615 ILCS 5] and IDNR/OWR Part 3704 "Regulation of Public Waters" Rules (<http://dnr.state.il.us/owr/publications/resman/3704RULE.htm>). A copy of the Part 3704 Rules is attached to this guidance document.

The purpose of this guidance document is to aid applicants for shore protection projects in Lake Michigan and their agents/consultants in understanding the Part 3704 Rules, and to assist them in their efforts to demonstrate compliance with the rules, particularly Sections 3704.80 and 3704.90. It is important to note that while this guidance does not supplant the rules, preparation of permit applications following these guidelines will help IDNR staff understand the proposed shore protection project as well as help both the applicant and the reviewer to assess the project's impacts, thus making a timely and favorable review more likely.

### **General Information and Types of Shore Protection Permits**

Any activity along the Lake Michigan shoreline that is located at or below the Ordinary High Water Mark (OHWM) requires a permit from the Department. In cases where the OHWM is lakeward of the existing bluff, the toe of the bluff will be used to determine the Department's jurisdiction. Both the IDNR/OWR and the U.S. Army Corps of Engineers define the OHWM as a water elevation of 581.5 ft. International Great Lakes Datum-1985 (IGLD-85). IDNR/OWR permits are issued jointly with the Illinois Environmental Protection Agency (IEPA). The following two types of shore protection permits are issued for work in Lake Michigan:

#### **General Permit No. 1-LM**

This permit is issued for minor shore parallel protection projects that do not exceed a length of 300 ft., and which meet the special conditions of that 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. A copy of the terms and special conditions of this permit can be obtained by contacting the Department's Lake Michigan

Management Section at (312) 793-5947 <http://dnr.state.il.us/owr/publications/GenPermit1-LM.pdf>  
Regular Permits

All other types of shore protection projects proposed within or adjacent to the waters of Lake Michigan require a regular permit from the Department. Examples of these types of projects include but are not limited to:

- Revetments (longer than 300 ft.)
- Seawalls/Bulkheads (longer than 300 ft.)
- Groins
- Breakwaters/Offshore Structures
- Beach Nourishment
- Piers
- Modifications to existing structures

These types of projects require the issuance of a public notice as specified in Section 3704.60. While this Section specifies a public notice period of at least 21 days, IDNR/OWR will extend the public notice period for shore protection projects to 30 days. These projects are reviewed by IDNR/OWR personnel for compliance with Part 3704 Rules, and also require IEPA approval prior to a permit being issued.

#### Projects That Do Not Require A Permit

Projects proposed outside the waters or the influence of the coastal processes of Lake Michigan do not require a permit. These include projects on a bluff and areas upslope, or landward of the existing bluff toe or bluff toe protecting structure. Also, maintenance work associated with the restoration of an existing permitted project to its original specifications does not require a new permit.

#### **Applying For A Permit**

A copy of the Department's application form "Protecting Illinois Waters" can be found at <http://dnr.state.il.us/owr/publications/ResmanAppform.pdf>. This is a joint application form used by the Department, the U.S. Army Corps of Engineers and the IEPA. The joint application form includes instructions for completing the application for submittal to the three reviewing agencies. This application-for-permit form needs to be submitted separately to each of the above mentioned agencies for all work in Lake Michigan. The Department's copy should be sent to:

Illinois Department of Natural Resources  
Michael A. Bilandic Building  
160 N. LaSalle Street, Suite S-703  
Chicago, Illinois 60601

To ensure that adequate notice is provided to adjacent property owners when completing item 7 on the application, if the project is in a residential area, the names, addresses, and phone numbers of at least three north and 10 south adjacent property owners should be listed.

#### Plans and Other Supporting Information

- A scaled vicinity map should be included in the submittal, showing the site of the project on Lake Michigan, along with any nearby harbors, community borders, existing lakeshore

structures, beaches, water intake plants, roadways or any other identifiable geographic features. A graphic scale and a north arrow should be included.

- A scaled plan view of the site showing existing and proposed conditions, including dimensions of the work or structure, grade changes, adjacent property lines and ownership, a graphic scale and north arrow.
- As many scaled cross-section plans as needed to represent the proposed project. These cross-sections should show existing and proposed conditions including dimensions of the structure, grade changes, and both horizontal and vertical graphic scales.
- All plans should clearly delineate the Ordinary High Water Mark of 581.5 IGLD-85 and verify the datum being used.
- It should be kept in mind that shore protection is the primary reason the Department allows limited construction to occur on the bed of Lake Michigan. Applicants should provide a detailed explanation of the purpose and need of the proposed project.
- Include an evaluation of the project's potential impact on public uses in the affected area, including boating, swimming, wading and fishing.
- Include an evaluation of the project's potential impact on the natural resources of the nearshore area, including at a minimum, fisheries, waterfowl, wildlife and vegetation.
- Include a descriptive or narrative explanation of any project components that will minimize, mitigate or offset any project-induced negative impact.
- Include a stabilization plan for all disturbed areas.

### **General Guidance for Shore Protection Projects**

As noted earlier, IDNR/OWR personnel must determine whether a proposed shore protection project complies with the Department's Part 3704 Rules. Section 3704.70 specifically prohibits the conversion of public waters to private land by filling; however fill material may be placed in public waters for such things as bank, shore or bluff protection and beach nourishment. Section 3704.80(a) specifies that the proposed activity must not: 1) cause an obstruction to, or interference with, the navigability of a public body of water, 2) result in an encroachment on a public body of water, 3) cause an impairment of any rights, interests or uses of the public in any public body of water or to its natural resources, and 4) cause bank or shoreline instability on other properties. Section 3704(b) outlines the additional information an applicant should submit if the proposed activity might cause one or more of these impacts. Section 3704.90 contains the standards the Department uses to determine whether a permit should be issued.

To assist the applicant in providing the information needed for IDNR/OWR personnel to evaluate proposed projects for compliance with the Part 3704 Rules, the following additional guidance is provided for the two primary categories of shore protection projects.

#### **Shore-Parallel Revetments and Bulkheads**

- The structure should be located as close to the existing toe of the bluff as is practicable, and should be the minimum size needed to provide shore protection.

- The materials to be used should consist of clean material, e.g., steel, wood, poured or pre-cast concrete, or stone.

#### Shore-Perpendicular or Offshore Structures

- Proposed offshore structures should be located as close to shore as possible and be no larger, or extend further offshore than needed to provide a reasonable level of beach area for shore protection. As a guiding principle private offshore structures should not extend more than 125 feet offshore from the base of a bluff.
- The size of the structure including its height, length, offshore extent, etc. should be comparable to adjacent structures in the area. In general, structures within 1000 feet of the project area should be considered as adjacent.
- The materials to be used should consist of clean material, e.g., steel, wood, poured or pre-cast concrete, or stone.
- Where possible, notably in areas where existing access along the lakeshore is available, the project should provide some type of reasonable access over or around it on the landward side.

#### **Specific Guidance for Shore-Perpendicular or Offshore Structures**

As a general principle, shore-perpendicular/offshore structures have the ability to trap sand from the littoral drift. To assist in the evaluation of whether a proposed structure will result in bank or shoreline instability on other properties, applications for these types of projects should address the following:

- The submittal should include an analysis of the proposed structure on the wave climate and impacts to the movement of sand (littoral drift). The analysis should include a review of the proposed structure individually and cumulatively with adjacent structures. Professionals with experience in this area should be utilized for this work.
- To ensure that these types of projects will not trap sand moving along the shoreline (littoral drift), the project should include the placement of clean sand in an amount equal to 120% of its potential capacity to retain sand. The grain size of the sand to be placed should be comparable with the natural sand and be of equal or larger grain size. Volume calculations should be included with the application submittal. Additional volume calculations may be required if shoreline changes occur between the time of application and construction of the proposed project. Applicants are reminded that any beach area artificially created as part of a shoreline protection project does not become private property for the exclusive use of the owner. Although standard condition #2 of the Department's permit covers this, a special condition will be added to any permit issued for a shore perpendicular or offshore structure to specifically impress upon the applicant that any artificially created beach area is considered to be public property and the owner of the upland property may not do anything to impair or prohibit lawful public use of such created beach area.
- Perpendicular or offshore-shore protection structures with the ability to trap littoral sediments will be expected to show, by survey, that the completed project is not trapping littoral drift sand (see Hydrographic Survey Guidelines Section).

- A pre-construction hydrographic (i.e., water depth and location) survey should be completed just before construction begins.
- One post-construction hydrographic survey should be completed as soon as construction has been completed, preferably within one month.
- A second post-construction hydrographic survey should be completed approximately one year after the date of the first post-construction survey.
- A third post-construction hydrographic survey should be completed approximately five years after the date of the first post-construction survey.
- Hydrographic surveys should be performed by a licensed surveyor with experience working in coastal environments.
- Surveys should only be performed on water when wave conditions are less than one foot. Flat calm conditions are preferred.
- Surveys should begin at the Ordinary High Water Mark (581.5 ft. IGLD-85), progress down to the edge of water and then continue an additional 300 ft. lakeward of the lakeward end of the proposed structure.
- For shoreline properties with less than 100 lineal feet of shoreline, the survey line spacing should not exceed 25 ft. For shoreline properties with more than 100 lineal feet of shoreline, the survey line spacing should not exceed 50 feet. A minimum of three survey lines is necessary, regardless of the length of the project.
- Survey cross-sections should have a graphic vertical scale of 1 in. = 5 ft. and a graphic horizontal scale of 1 in. = 50 ft.
- Survey lines should be parallel and their orientation should be perpendicular to the general trend of the shoreline.
- Surveys should be submitted using IGLD-85 as the datum and may be referenced to the Low Water Datum (577.50 IGLD-85).
- Upon completion of the first post-construction survey, the applicant should submit both the pre and post-construction survey data to the Department. The presentation should include a direct comparison of pre and post-construction profiles.
- Upon completion of the second post-construction survey (one year after construction has been completed), the applicant should submit that survey, along with an updated comparison of all survey profiles.
- Upon completion of the third post-construction survey (five years after construction has been completed), the applicant should submit that survey, along with an updated comparison of all survey profiles.

If either the second or third post-construction surveys indicate that the project appears to be trapping littoral drift sand, the Department will determine, on a case-by-case basis, what additional

action, if any, may be required. This could include a requirement to undertake additional surveys to better ascertain the impact of the project and/or the placement of additional sand as mitigation.

### **Permit Processing**

Upon receipt of an application, an initial review will determine the need for clarification or additional information, if any. At the same time, the application is forwarded to the Illinois Department of Natural Resources, Office of Realty and Environmental Planning for their review. The applicant is responsible for contacting the Illinois Historic Preservation Agency at (217) 782-4836 for any requirements they may have.

If the initial review determines that a project will not require a permit, the Department will inform the applicant by letter, and will also advise the applicant of the required non-refundable permit application review fee.

If a project requires a Regular Permit, a public notice will be issued. For shore protection projects, the minimum public notice period will be 28 days. This public notice period may be extended if needed to allow interested parties the opportunity to prepare and submit comments.

The purpose of the public notice is to solicit comments on the project from interested parties, including property owners, local, state and federal government agencies and officials as well as the general public. Objections received during the public notice period are provided to the applicant for comment and possible resolution.

Once the Department has received all the required information, including public notice comments and responses, it will determine whether the proposed project is in compliance with the provisions of the Part 3704 Rules. Proposed projects complying with the Part 3704 Rules will be permitted. Proposed projects not in compliance with the Part 3704 Rules will be denied. All denials are issued without prejudice and include a detailed explanation.

For assistance with application preparation or to request additional information, call the Lake Michigan Management Section at (312) 793-5947.