

**DEPARTMENT OF ENVIRONMENTAL QUALITY**

**LAND AND WATER MANAGEMENT**

**GREAT LAKES SHORELANDS**

(By authority conferred on the department of environmental quality by section 32312 of Act No. 451 of the Public Acts of 1994, as amended, being S324.32312 of the Michigan Compiled Laws)

**R 281.21 Definitions.**

Rule 1. (1) As used in these rules:

(a) "Act" means Part 323 of Act No. 451 of the Public Acts of 1994, as amended, being Section 324.32301 et seq. of the Michigan Compiled Laws, and known as shorelands protection and management.

(b) "Alteration of vegetation" means to change the natural density and composition of plants by human activity such as mowing, cutting, clearing, spraying, burning, trimming, thinning, and other means.

(c) "Erosion hazard line" means the line along the shoreland that is the landward edge of the zone of active erosion or the line where the 583.0 feet international Great Lakes datum contour on Lake Michigan, the 582.2 feet international Great Lakes datum contour on Lake Huron, or the 603.3 feet international Great Lakes datum contour on Lake Superior meets the shoreland, whichever is furthest landward.

(d) "High bluff" means a bluff or dune that is more than 25 feet in height measured from the appropriate elevation contour set forth in the definition of erosion hazard line.

(e) "Low bluff" means a bluff or dune that is 25 feet or less in height measured from the appropriate elevation contour set forth in the definition of erosion hazard line.

(f) "Nonconforming structure" means a permanent structure which does not conform to the required setback distance at the time of designation or which became nonconforming due to erosion or became nonconforming due to a change in the required setback distance. Permanent structures that are constructed in violation of these rules shall not be considered to be nonconforming structures.

(g) "One hundred-year flood" means a flood that has a 1% chance of being equaled or exceeded in any given year.

(h) "Parcel" means a continuous area or acreage of land that is under the same ownership at the time of designation.

(i) "Permanent structure" means any 1 of the following structures that is erected, installed, or moved on a parcel of property:

- (i) A residential building.
- (ii) A commercial building.
- (iii) An industrial building.
- (iv) An institutional building.
- (v) A mobile home.
- (vi) Accessory and related buildings.

(vii) A swimming pool or deck that has a roof or walls.

(viii) Septic systems.

(ix) Tile fields.

(x) Other waste-handling facilities. A permanent structure shall be considered small if it has a foundation size of 3,500 square feet or less and less than 5 individual living units. All other permanent structures shall be considered large. "Permanent structure" does not include recreational vehicles, travel trailers, swimming pools, or decks constructed on pilings if the pool or deck does not have a roof or walls. A "Permanent Structure" also does not include separate appurtenant structures which have less than 225 square feet, which are used for picnicking or storing of recreational or lawn equipment, and which are constructed in a manner that facilitates easy removal. The appurtenant structure shall not have a permanent foundation and shall not be used as a residential facility.

(j) "Projected recession distance" means the distance, in feet, determined by the department under R 281.22.

(k) "Readily moveable structure" means a small permanent structure which is designed, sited, and constructed to accomplish relocation at a reasonable cost relative to other structures of the same size and construction. Access to and from the site shall be of sufficient width and acceptable grade to permit the structure to be relocated. New construction and installations shall meet the following criteria to be considered readily moveable structures:

(i) The buildings shall be on pilings, a basement, or crawl space. Except as noted in paragraph (ii) of this subdivision, a slab-on-grade foundation does not meet this criterion.

(ii) Above-grade walls shall be stud wall or whole log construction. Above-grade walls that are constructed of masonry, including stone walls, concrete poured, or concrete block walls do not meet this criterion. Existing permanent structures shall be considered readily moveable structures if the cost of relocation landward of the required setback distance is not more than 25% of the replacement cost of the structure or if the existing structure meets the criteria for new construction in this subdivision. A 1- or 2-car garage which is bolted to a slab foundation and which does not have plumbing or interior walls is a readily moveable structure if it meets the remainder of the requirements specified in this subdivision. Septic systems, tile fields, or other waste-handling facilities are not readily moveable structures.

(l) "Required setback distance" means the least distance a permanent structure can be constructed from the erosion hazard line without a special exception. The required setback distance is calculated using the following criteria:

(i) For low bluffs, the required setback distance shall be at the projected recession distance from the erosion hazard line.

(ii) For high bluffs, the required setback distance is calculated by adding 1.0 to the product of the percentage points of slope over 25% and 0.05 to a maximum of 2.0. The answer is multiplied by the projected recession distance in feet. The following table shows sample calculations using this formula:

#### Required Setback

Percent Slope 1.0 (Percent Slope over 25% x 0.05) Multiplier 25 1.0+ (0 x 0.05) = 1  
 30 1.0+ (5 x 0.05) = 1.25 35 1.0+ (10 x 0.05) = 1.5 40 1.0+ (15 x 0.05) = 1.75  
 45 1.0+ (20 x 0.05) = 2.0

The slope of the bluff or dune is measured over a 50-foot distance on the lower portion of the lakeward facing slope of the dune or bluff.

(iii) The required setback distance shall not be greater than the projected recession distance from the top of the lakeward facing slope of a dune or bluff.

(iv) For bluffs and dunes which have slopes of more than 60% and which are more than 100 feet in elevation above the appropriate lake elevation set forth in the definition of erosion hazard line, the required setback distance shall be established not less than 30 feet landward of the lakeward facing slope of the dune or bluff.

(m) "Structure zone" means an area within an environmental area where a permit under this part is not required to engage in the activities specified in R 281.23(6).

(n) "Setback line" means the line which is the required setback distance landward of the erosion hazard line and which is the lakeward limit for the construction of permanent structures without a special exception.

(o) "Substandard parcel" means a lot or parcel of record or a lot or parcel which is described in a land contract or deed that is executed and delivered before the designation of a high-risk erosion area and which does not have adequate depth to provide the required setback distance from the erosion hazard line for a permanent structure. "Substandard Parcel" also means those lots which are legally created after the designation of a high-risk erosion area and which have sufficient depth to meet setback requirements for permanent structures, but which subsequently become substandard due to erosion processes or become substandard due to a change in the required setback distance.

(p) "Wetland-oriented birds" means any of the following:

- (i) Waterfowl.
- (ii) Shorebirds.
- (iii) Gulls.
- (iv) Terns.
- (v) Herons.
- (vi) Rails.
- (vii) Bitterns.
- (viii) Other birds associated with coastal or wetland areas.

(q) "Wetland-oriented mammals" means any of the following:

- (i) Muskrats.
- (ii) Mink.
- (iii) Beavers.
- (iv) Otter.
- (v) Other mammals associated with coastal or wetland habitats.

(r) "Zone of active erosion" means the area of the shoreland where the disturbance or loss of soil and substrate has occurred with sufficient frequency to cause unstable slopes or prevent vegetation of the area.

(2) The terms defined in the act have the same meanings when used in these rules.

History: 1979 AC; 1981 AACS; 1992 AACS; 1998-2000 AACS.

**R 281.22 High-risk erosion areas.**

Rule 2. (1) Not less than 30 days before the designation of a high-risk erosion area, the department shall mail predesignation letters to the affected landowners of record as shown in the last assessment rolls. The letters shall explain that the property is being considered for designation as a high-risk erosion area and shall invite comments from the affected landowners. The department shall schedule a meeting before the designation is made to explain the proposed designation to property owners and local governmental agencies.

(2) The department shall designate a high-risk erosion area upon its finding that recession of the landward edge of the zone of active erosion has been occurring at an average annual rate of 1 foot or more per year, based on a minimum period of 15 years. Similar recession rates along a reach of shoreland shall be grouped and an average calculated for each reach. The designation shall contain the projected recession distance used to establish the setback line for any future permanent structure. The projected recession distance shall 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 shall be included in the projected recession distance to provide protection from severe short-term erosion losses. This additional 15 feet shall replace, and not be in addition to, the 15 feet previously added due to recession rate variability. If this change results in an increase in the projected recession distance, it shall not be effective until the landowner receives written notice.

(3) In designating a high-risk erosion area, the department shall notify the landowner of record and the local government agency affected thereby. The notice of designation shall be delivered personally or sent, by certified mail, to the landowner of record at the address given in the last assessment roll.

(4) The notice of designation to affected landowners and local governmental agencies shall include all of the following information:

- (a) The authority and reasons for the designation of high-risk erosion areas.
  - (b) A description, graphic or otherwise, of the limits of the high-risk erosion area.
  - (c) An explanation of any regulatory measures which may be required in the high-risk erosion area and the regulatory role of the local governmental agency.
  - (d) The procedure by which the designation may be appealed.
- (5) The department shall consider additional high-risk erosion areas as may be proposed by local governmental agencies, citizens, or interested groups.

(6) A high-risk erosion area designation may be removed or the projected recession distance may be modified on an individual parcel or parcels upon the presentation of topographic surveys, low-altitude, vertical, aerial photographs, or other documentation which the department can readily use to determine average annual recession rates. Upon department acceptance of the surveys, photographs, or other documentation as accurate, the department will determine an updated recession rate or rates for the affected parcel or parcels. If the updated data results in a modification of the recession rate or rates, consistent with the provisions of subrule (2) of this rule, the projected recession distance shall be modified or the

designation shall be removed for the affected area within 60 days. Requests for modification can only be made once every 5 years or upon the sale of the property.

(7) In the absence of an approved local ordinance enacted pursuant to the provisions of sections 7, 8, 9, and 10 of the act, any person or local governmental agency proposing to erect, install, move, or enlarge a permanent structure on a parcel, any portion of which is in a designated high-risk erosion area, shall submit a permit application to the department for its review. The permit application shall contain all of the following information:

(a) A legal description of the property.

(b) A description of the proposed permanent structure.

(c) A sketch of the proposed site which shows the location of the proposed permanent structure in relation to the location of the property lines and prominent features.

(d) The signature and address of the applicant.

(8) A permit application to erect, install, or move a permanent structure in a designated high-risk erosion area shall be approved if the proposed permanent structure meets or exceeds all of the following requirements:

(a) The proposed permanent structure or addition is landward of the setback line.

(b) Small permanent structures that are erected, installed, or moved into the area between the setback line and a distance twice the required setback distance shall be readily moveable structures, except for those small permanent structures located on parcels which do not have access of sufficient width and acceptable grade to allow for relocation.

(c) A permanent structure shall not be erected, installed, or moved lakeward of the setback line in a high-risk erosion area without a special exception, as provided by subrules (9) and (10) of this rule.

(d) The proposed permanent structure meets the requirements of other applicable state laws, including the provisions of Act No. 222 of the Public Acts of 1976, as amended, being S281.651 et seq. of the Michigan Compiled Laws.

(e) Review and approval of the structure design to ensure the building is a readily moveable structure shall be incorporated into the department permit process.

(9) A special exception shall be granted and a portion of the required setback distance waived to erect, install, or move a small readily moveable structure lakeward of the setback line on a substandard parcel if all of the following provisions are complied with:

(a) If a sanitary sewer is not used, the septic system, tile field, or other waste-handling facility shall be located at least as far landward as the lakeward edge of the building.

(b) The readily moveable structure shall be located as far landward of the erosion hazard line as local zoning restrictions allow.

(c) The readily moveable structure shall be designed and constructed in accordance with proper engineering standards and building moving restrictions applicable to the subject area. Review and approval of the design to ensure that the building is a readily moveable structure shall be incorporated into the department permit process.

(d) The readily moveable structure is not less than 30 feet landward of the erosion hazard line and is not located on a lakeward facing slope of 60% or more.

(e) The readily moveable structure meets the requirements of other applicable state laws, including the provisions of Act No. 222 of the Public Acts of 1976, as amended, being S281.651 et seq. of the Michigan Compiled Laws.

(10) If a substandard parcel does not have access to and from the structure site of sufficient width and acceptable grade to erect or move a readily moveable structure, or if the application is for a large permanent structure on a substandard parcel, a special exception shall be granted to utilize a shore protection structure in place of a portion of the required setback distance. The special exception shall be granted only if all of the following provisions are complied with:

(a) If a sanitary sewer is not used, the septic system, tile field, or other waste-handling facility shall be located at least as far landward as the building.

(b) The permanent structure shall be located as far landward of the erosion hazard line as local zoning restrictions allow and shall be located landward of the erosion hazard line.

(c) The shore protection structure shall be designed to meet or exceed a 20-year storm event at the site for small permanent structures and a 50-year storm event at the site for large permanent structures and a professional engineer shall certify that the structure has been designed and will be constructed in accordance with these standards. If the structure is constructed in the waters of the Great Lakes or lies below the ordinary high watermark, a permit pursuant to the provisions of Act No. 247 of the Public Acts of 1955, as amended, being S322.701 et seq. of the Michigan Compiled Laws, shall be obtained for the shore protection structure.

(d) The permanent structure shall be a minimum of 30 feet from the shore protection structure. If the bluff or dune is unstable due to height, slope, wind erosion, or groundwater seepage, the department may require a setback of more than 30 feet or an engineered bluff stabilization plan, or both. In areas of steep slopes, a greater setback may be necessary to provide access for maintenance equipment and a safe building site.

(e) If the application is for a large permanent structure the department shall require compliance with both of the following provisions:

(i) The establishment of an escrow account to maintain the approved shore protection structure or bluff stabilization, or both. The amount required in the escrow account shall be reasonable and based on the project design.

(ii) Notice in the disclosure statement or deed that a portion of the required setback distance has been waived.

(f) The proposed permanent structure meets the requirements of other applicable state laws, including the provisions of Act No. 222 of the Public Acts of 1976, being S281.651 et seq. of the Michigan Compiled Laws.

(11) A special exception shall be granted, and a portion of the required setback distance waived, for the installation of an approved shore protection project if all of the following conditions are met:

(a) A local agency is contractually responsible for the perpetual care of the shore protection structure. The responsibility will be defined in a written agreement between the department and the local agency. The local agency shall agree to perform maintenance or repairs to maintain the integrity of the shore protection. The local agency shall submit to the department a financial plan for maintaining the structure.

(b) The shore protection structure is designed and constructed to meet or exceed a 50-year storm standard. The design and construction shall be certified by a professional engineer. If the structure is constructed in the waters of the Great Lakes or lies below the ordinary high watermark, a permit pursuant to the provisions of Act No. 247 of the Public Acts of 1955, as amended, being S322.701 et seq. of the Michigan Compiled Laws, shall be obtained for the shore protection structure.

(c) A favorable finding is made by the local agency, with input by the department, that a greater public good exists to support the use of a shore protection structure rather than a natural shoreline in terms of all of the following:

(i) The preservation of fish and wildlife habitat.

(ii) The value to the entire community of a natural shoreline as opposed to the value to the entire community of additional development that is made possible by the shore protection.

(iii) The impact of the loss of sand movement along the shoreline.

(iv) The impact on erosion of land in the immediate area of the shore protection structure. Before making the finding, the local agency shall hold a public hearing. Notice shall be sent to all riparians within 300 feet of the proposed shore protection structure and to the department.

(d) A favorable finding is made by the department that a greater public good exists to support the use of a shore protection structure rather than a natural shoreline in terms of all of the following:

(i) The preservation of fish and wildlife habitat.

(ii) Protection of the public trust.

(iii) The impact of the loss of sand movement along the shoreline.

(iv) The impact on the erosion of land in the immediate area of the shore protection structure.

(e) There is a minimum of 30 feet from the shore protection to any permanent structure. If the bluff or dune is unstable due to height, slope, wind erosion, or groundwater seepage, the department may require a setback of more than 30 feet or an engineered bluff or dune stabilization plan, or both. In areas of steep slopes, a greater setback may be necessary to provide access for maintenance equipment and a safe building site. If the parcel has existing permanent structures which are less than 30 feet from the proposed shore protection, there shall be sufficient access to permit the maintenance and repair of the shore protection.

(f) Shore protection is already a common feature of the shoreline lying within 1,000 feet of the proposed shore protection structure.

(12) A permit application to make an addition to an existing permanent structure in a designated high-risk erosion area shall be approved if the addition meets or exceeds the required setback distance.

(13) A permit application to make an addition to an existing readily moveable structure which is not in compliance with the required setback distance of a designated high-risk erosion area shall be approved if all of the following provisions are complied with:

(a) The existing building with the addition will meet the definition of a readily moveable structure.

(b) The proposed addition does not reduce the permanent structure's distance from the erosion hazard line.

(c) On low bluffs, the proposed addition is not less than 20 feet landward of the erosion hazard line.

(d) On high bluffs, the existing permanent structure and the proposed addition are not less than 30 feet landward of the erosion hazard line.

(14) An application to make an addition to an existing small nonconforming permanent structure which is not a readily moveable structure shall be approved if, at the date of construction, the provisions of either subdivision (a) or (b) of this subrule and the provisions of either subdivision (c) or (d) of this subrule are complied with as follows:

(a) The total of all floor space added shall not exceed 25% of the foundation size of the permanent structure. The foundation size shall be determined as of the time the permanent structure became nonconforming. When the 25% limit on additions has been reached, no further additions can be made for the remaining life of the structure. The addition shall not reduce the permanent structure's distance from the erosion hazard line.

(b) The addition shall meet the definition of a readily moveable structure and the addition shall be on the landward side of the original permanent structure. A permit may only be issued if the property owner, as a condition for permit, agrees to relocate the readily moveable portion of the permanent structure to a location landward of the setback line when so ordered by the department. The department may make such an order only when the foundation of the existing structure is undermined by erosion.

(c) On low bluffs, the proposed addition is not less than 20 feet landward of the erosion hazard line.

(d) On high bluffs, the existing small permanent structure and the addition are not less than 30 feet landward of the erosion hazard line.

(15) If a nonconforming structure deteriorates or becomes damaged, it may be restored to its condition before the deterioration or damage if the repair cost is not more than 60% of the replacement value. If the cost of restoring the nonconforming structure is more than 60%, but less than 100%, of its replacement value, it may be reconstructed if all of the following conditions are met:

(a) The permanent structure was damaged by a force other than erosion.

(b) The permanent structure, if rebuilt in its existing location, would be not less than 20 feet landward of the erosion hazard line.

(c) The reconstructed building would be a readily moveable structure. If the building is 100% destroyed or declared a total loss for insurance purposes, the requirements for new permanent structures shall apply.

(16) If a permanent structure is relocated, all construction materials, including foundations, shall be removed or properly disposed of as a part of the moving operation.

(17) After the effective date of these rules, the slope and height of the dune or bluff shall not be artificially altered to affect the setback requirement under these rules unless the alteration is in compliance with a permit issued pursuant to the provisions of Act No. 347 of the Public Acts of 1972, as amended, being S281.101 et seq. of the Michigan Compiled Laws, and Act No. 247 of the Public Acts of 1955, as amended, being S322.701 et seq. of the Michigan Compiled Laws, if the alteration or

fill extends into the waters of the Great Lakes or below the ordinary high watermark elevation.

(18) Not more than 60 days after receipt of a complete permit application, the department shall send notice of its approval or disapproval to the applicant. The reasons for disapproval shall be stated and sent by certified mail. A permit application which does not require field investigation shall be processed within 20 days.

(19) Approval of a permit does not exempt the applicant from complying with other statutes, ordinances, or rules and regulations.

(20) Any aggrieved party who contests the designation of a high-risk erosion area, the disapproval of a permit application, or the increase in a projected recession distance shall be granted a hearing if a petition is filed with the department not more than 60 days after the designation letter, the notice of disapproval, or the notice of increase in projected recession distance is sent. Such petition shall be sent to the director of the Department of Natural Resources, P.O. Box 30028, Lansing, Michigan 48909. The hearing shall be conducted in accordance with the provisions of Act No. 306 of the Public Acts of 1969, as amended, being S24.201 et seq. of the Michigan Compiled Laws.

(21) The landowner of record and the local governmental agency shall be sent a notice, by certified mail, if the high-risk erosion area designation is removed.

(22) The department shall update shoreland recession studies every 10 years to reflect varying lake levels and changes in erosion rates. Areas of the shoreland having updated long-term recession rates below one foot per year shall have the high-risk erosion area designation removed by the department. The department shall notify affected property owners and local units of government of changes in projected recession distances as a result of updated information. Notifications to property owners shall be sent by certified mail to the address listed in the last tax assessment roll.

(23) If the local unit of government has an approved ordinance enacted pursuant to the provisions of section 7, 8, 9, or 10 of the act, a period of 1 year from notification by the department of any change in setback requirements shall be provided to permit the local unit to amend the ordinance to meet the revised setback requirements.

(24) If the department determines that the requirements set forth in these rules are not being upheld by a local unit of government which has an approved ordinance, the department shall contact the local agency to identify, discuss and attempt to resolve any problems. If the problem cannot be informally resolved, the department shall then notify the community, in writing, of its determination. The notice shall contain the specific reasons why the department believes the local unit of government has not upheld the approved ordinance. The local unit of government shall be provided a period of 60 days to respond to the department. If the department further determines that the local unit of government has not made sufficient changes to its ordinance administration or otherwise explained its actions, the department shall withdraw its approval and resume its high-risk erosion area permitting authority within the jurisdiction.

(25) The setbacks established by the department shall not be construed as limiting local units of government from establishing larger setbacks.

(26) All high-risk erosion area designations in existence on the effective date of these rules shall remain in full force and effect.

History: 1979 AC; 1981 AACCS; 1992 AACCS.

**R 281.23 Environmental areas.**

Rule 3. (1) In determining whether an area is necessary for the preservation and maintenance of fish, all of the following uses shall be considered:

(a) Spawning, which is the placement and fertilization of eggs by fish for the propagation of young fish.

(b) Nursery, which is the utilization of an area by young fish as a sheltered habitat in which to feed and grow.

(c) Feeding, which is the process of obtaining and ingesting plant or animal matter necessary for maintaining growth and life functions.

(d) Protection, which is the utilization of an area as escape cover from predators or unsuitable environmental conditions.

(e) Migration, which is a daily or seasonal movement.

(2) In determining whether an area is necessary for the preservation and maintenance of wildlife, all of the following uses by wetland-oriented birds and wetland-oriented mammals shall be considered:

(a) Breeding, which is the process of courting, pairing, and mating.

(b) Nesting, which is the process of laying, incubating, and hatching eggs.

(c) Rearing of young, which is the feeding and protection of young.

(d) Feeding, which is the process of obtaining and ingesting plant or animal matter necessary for maintaining growth and life functions.

(e) Resting, which is a period of inactivity in the daily routine or seasonal migration.

(3) Not less than 30 days before designation of environmental areas, the department shall mail predesignation letters to affected landowners of record as shown in the last assessment rolls. The letter shall explain that the property is being considered for designation as an environmental area and shall invite comments from the affected landowners. The department shall schedule a meeting before designation to explain the proposed designation to property owners and local governmental agencies.

(4) The department shall designate environmental areas determined to be necessary for the preservation and maintenance of fish or wildlife, or both. The department shall personally deliver the notice of designation or send it by certified mail to the landowner of record at the address given in the last assessment roll and to the local governmental agency.

(5) The notice of designation to affected landowners and local governmental agencies shall include all of the following information:

(a) The authority and reasons for designation of environmental areas.

(b) A description or map of the limits of the environmental area.

(c) An explanation of any regulatory measures that may be required in environmental areas and the regulatory role of the local governmental agency.

(d) The procedure by which the designation may be appealed.

(6) The following shoreland uses in an environmental area require a permit from the department in accordance with these rules or from a local governmental agency under an ordinance approved by the department:

(a) Dredging, filling, grading, or other alterations of the soil.

(b) Alteration of natural drainage, but not including the reasonable care and maintenance of established drainage improvement works. A permit is not required for maintenance of existing dikes.

(c) Alteration of vegetation utilized by fish or wildlife, or both, for the uses covered in subrules (1) and (2) of this rule. A permit may be issued if the department finds that the alteration of vegetation is dependent upon being located in an environmental area, no other feasible and prudent alternatives exist, and that the alteration will not adversely impact essential fish or wildlife habitat. A permit is not required for the following:

(i) The removal of tree branches that threaten existing permanent structures or public safety.

(ii) The pruning of trees that have a diameter at breast height of 3 inches or more for a view of a Great Lake if the area being pruned does not exceed 40 feet in width and 10 feet above ground level.

(iii) Maintenance of previously permitted trails and boardwalks through environmental areas. Maintenance is limited to the trail or boardwalk surface to a height of 10 feet above the ground.

(d) The placement of permanent structures.

(7) Farming of lands within the environmental area is allowed without a permit if all of the following provisions are complied with:

(a) Artificial draining, diking, dredging, or filling is not used.

(b) The natural contour of the land is not altered.

(c) Only normal farming implements and generally accepted agricultural practices are used.

(d) The environmental area is utilized by a person who is engaged in the business of farming, and the land is to be used for the production and harvesting of agricultural products.

(8) The pumping of water into an environmental area is allowed without a permit.

(9) A structure zone that is not more than 12,000 square feet shall be delineated for all parcels of land which are totally included within the boundaries of an environmental area at the time of designation. Structure zones will typically be located adjacent to or in proximity to existing roadways, within upland ridges or previously disturbed areas, and to minimize human disturbance to surrounding fish and wildlife habitat. The structure zone shall be configured to minimize fragmentation of the environmental areas. If a parcel has less than 12,000 square feet of land outside the environmental area, then a structure zone shall be delineated which, in conjunction with the land outside the environmental area, shall total 12,000 square feet. Use of a structure zone is subject to all other statutes, ordinances, and rules and regulations.

(10) The department shall consider additional environmental areas as may be proposed by local governmental agencies, citizens, or interested groups.

(11) In the absence of an approved zoning ordinance enacted under sections 7,8,9, and 10 of the act, any person or local governmental agency proposing one of the uses regulated in subrule (6) of this rule outside the structure zone or proposing a change in the location of a structure zone shall submit to the department a permit application for the proposed use. The permit application shall contain all of the following:

- (a) A legal description of the property.
- (b) A drawing of the site with the proposed project clearly shown.
- (c) A detailed description of the proposed project.
- (d) The signature and address of the applicant.

(12) A permit application, as described in subrule (11) of this rule, shall be approved if both of the following conditions are satisfied:

(a) The adverse effects to the uses described in subrules (1) and (2) of this rule are minimal and are mitigated to the maximum extent feasible.

(b) A feasible and prudent alternative to the proposed plan is not available.

(13) Not more than 60 days after receipt of a permit application, the department shall send to the applicant, by certified mail, a notice of its approval or disapproval. In case of disapproval, the department shall state the reasons for disapproval. The department shall process a permit application that does not require field investigation within 20 days.

(14) Approval of a permit does not exempt the applicant from complying with other statutes, ordinances, and rules and regulations.

(15) Any aggrieved party that contests the designation of an environmental area or the disapproval of a permit application shall be granted a hearing if the party files a petition with the department not more than 60 days after the designation letter or the notice of disapproval is sent. The party shall send the petition to the director of the Department of Environmental Quality, P.O.BOX 30458, Lansing, Michigan 48909-7958. The department shall conduct the hearing in accordance with sections 71 to 87 of Act No. 306 of the Public Acts of 1969, as amended, being "24.271 to 24.287 of the Michigan Compiled Laws, and R 299.3071 to R 299.3081 of the Michigan Administrative Code.

(16) The department shall send the landowner of record and the local governmental agency a notice by certified mail if the environmental area designation is removed.

(17) All environmental area designations in existence on the effective date of these rules shall remain in full force and effect.

History: 1979 AC; 1981 AACS; 1998-2000 AACS.

#### **R 281.24 Flood risk areas.**

Rule 4. (1) Any area which is within the 100-year floodplain of a Great Lake or a connecting waterway, as identified in any of the approved floodplain delineation studies set forth in this subrule, is designated as a flood risk area. The following floodplain delineation studies are adopted in these rules by reference:

(a) Flood insurance study, city of Algonac, Michigan, St. Clair county, United States department of housing and urban development, federal insurance administration, April, 1977.

- (b) Flood insurance study, township of Bangor, Michigan, Bay county, United States department of housing and urban development, federal insurance administration, January, 1979.
- (c) Flood insurance study, township of Berlin, Michigan, Monroe county, federal emergency management agency, federal insurance administration, May 3, 1982.
- (d) Flood insurance study, charter township of Brownstown, Michigan, Wayne county, federal emergency management agency, federal insurance administration, February 16, 1982.
- (e) Flood insurance study, township of Caseville, Michigan, Huron county, United States department of housing and urban development, federal insurance administration, February, 1977.
- (f) Flood insurance study, township of Chesterfield, Michigan, Macomb county, United States department of housing and urban development, federal insurance administration, January, 1978.
- (g) Flood insurance study, township of Clay, Michigan, St. Clair county, United States department of housing and urban development, federal insurance administration, June, 1978.
- (h) Flood insurance study, township of East China, Michigan, St. Clair county, United States department of housing and urban development, federal insurance administration, January, 1978.
- (i) Flood insurance study, city of East Tawas, Michigan, Iosco county, United States department of housing and urban development, federal insurance administration, September, 1977.
- (j) Flood insurance study, township of Erie, Michigan, Monroe county, United States department of housing and urban development, federal insurance administration, March, 1978.
- (k) Flood insurance study, city of Escanaba, Michigan, Delta county, United States department of housing and urban development, federal insurance administration, September, 1977.
- (l) Flood insurance study, village of Estral Beach, Michigan, Monroe county, federal emergency management agency, federal insurance administration, May 2, 1983.
- (m) Flood insurance study, township of Ford River, Michigan, Delta county, United States department of housing and urban development, federal insurance administration, June, 1977.
- (n) Flood insurance study, township of Fort Gratiot, Michigan, St. Clair county, United States department of housing and urban development, federal insurance administration, June, 1978.
- (o) Flood insurance study, township of Fraser, Michigan, Bay county, federal emergency management agency, federal insurance administration, September, 1979.
- (p) Flood insurance study, township of Frenchtown, Michigan, Monroe county, United States department of housing and urban development, federal insurance administration, March, 1977.
- (q) Flood insurance study, city of Gibraltar, Michigan, Wayne county, United States department of housing and urban development, federal insurance administration, December, 1978.

- (r) Flood insurance study, city of Gladstone, Michigan, Delta county, United States department of housing and urban development, federal insurance administration, September, 1977.
- (s) Flood insurance study, township of Grosse Isle, Michigan, Wayne county, United States department of housing and urban development, federal insurance administration, February, 1980.
- (t) Flood insurance study, township of Hampton, Michigan, Bay county, United States department of housing and urban development, federal insurance administration, February, 1978.
- (u) Flood insurance study, city of Harbor Springs, Michigan, Emmet county, United States department of housing and urban development, federal insurance administration, November, 1976.
- (v) Flood insurance study, township of Harrison, Michigan, Macomb county, federal emergency management agency, federal insurance administration, November 5, 1980.
- (w) Flood insurance study, township of Ira, Michigan, St. Clair county, United States department of housing and urban development, federal insurance administration, September, 1979.
- (x) Flood insurance study, township of Kawkawlin, Michigan, Bay county, United States department of housing and urban development, federal insurance administration, August, 1978.
- (y) Flood insurance study, township of LaSalle, Michigan, Monroe county, United States department of housing and urban development, federal insurance administration, August, 1977.
- (z) Flood insurance study, city of Luna Pier, Michigan, Monroe county, federal emergency management agency, federal insurance administration, December 1, 1981.
- (aa) Flood insurance study, city of Monroe, Michigan, Monroe county, United States department of housing and urban development, federal insurance administration, December, 1976.
- (bb) Flood insurance study, township of Monroe, Michigan, Monroe county, United States department of housing and urban development, federal insurance administration, June, 1977.
- (cc) Flood insurance study, city of Muskegon, Michigan, Muskegon county, United States department of housing and urban development, federal insurance administration, December, 1976.
- (dd) Flood insurance study, township of Muskegon, Michigan, Muskegon county, United States department of housing and urban development, federal insurance administration, August, 1977.
- (ee) Flood insurance study, city of New Baltimore, Michigan, Macomb county, United States department of housing and urban development, federal insurance administration, March, 1978.
- (ff) Flood insurance study, city of North Muskegon, Michigan, Muskegon county, United States department of housing and urban development, federal insurance administration, November, 1976.

(gg) Flood insurance study, city of Norton Shores, Michigan, Muskegon county, United States department of housing and urban development, federal insurance administration, September, 1977.

(hh) Flood insurance study, township of Pinconning, Michigan, Bay county, United States department of housing and urban development, federal insurance administration, March, 1978.

(ii) Flood insurance study, city of St. Clair, Michigan, St. Clair county, United States department of housing and urban development, federal insurance administration, December, 1977.

(jj) Flood insurance study, township of St. Clair, Michigan, St. Clair county, United States department of housing and urban development, federal insurance administration, February, 1978.

(kk) Flood insurance study, city of St. Clair Shores, Michigan, Macomb county, United States department of housing and urban development, federal insurance administration, February, 1978.

(ll) Flood insurance study, township of Sims, Michigan, Arenac county, United States department of housing and urban development, federal insurance administration, December, 1977.

(mm) Flood insurance study, village of Suttons Bay, Michigan, Leelanau county, United States department of housing and urban development, federal insurance administration, December, 1976.

(nn) Flood insurance study, township of Wisner, Michigan, Tuscola county, United States department of housing and urban development, federal insurance administration, November, 1977.

(oo) Flood insurance study, city of Wyandotte, Michigan, Wayne county, United States department of housing and urban development, federal insurance administration, November, 1977.

(2) The documents adopted in this rule are available from the Federal Insurance Administration, Federal Emergency Management Agency, 175 West Jackson Boulevard, Chicago, Illinois 60604, at a cost at the time of adoption of these rules of \$5.00 each; the Michigan Department of Natural Resources, Land and Water Management Division, P.O. Box 30028, Lansing, Michigan 48909, at no charge; and the local unit of government.

(3) The department may designate additional flood risk areas which are located within the 100-year floodplain of a Great Lake or a connecting waterway. The following information and studies may be used in delineating the flood risk areas:

(a) Current floodplain information reports by the United States army, corps of engineers.

(b) Report on Great Lakes open-coast flood levels by the United States army, corps of engineers.

(c) Current flood hazard analysis studies by the United States department of housing and urban development, federal insurance administration.

(d) Current flood hazard analysis studies by the United States soil conservation service.

(e) Engineering studies currently acceptable to the department.

(4) If the studies listed in subrule (3) of this rule are used to determine the flood risk area, all of the following procedures for designation shall be used:

(a) Not less than 30 days before designation of a flood risk area, the department shall mail predesignation letters to the affected landowners of record as shown in the last assessment roll. The letter shall explain that the property is being considered for designation as a flood risk area. The department shall schedule a meeting before designation to explain the proposed designation to property owners and local governmental agencies.

(b) The department shall designate a flood risk area upon its finding that the property lies within the 100-year floodplain of a Great Lake or a connecting waterway.

(c) In designating a flood risk area, the department shall notify the landowner of record and the local governmental agency affected thereby. The notice of designation shall be delivered personally or sent by certified mail to the landowner of record at the address given in the last assessment roll.

(d) The notice of designation to affected landowners and local governmental agencies shall include all of the following information:

(i) The authority and reasons for designation of flood risk areas.

(ii) A description, graphic or otherwise, of the limits of the flood risk area.

(iii) An explanation of any regulatory measures which may be required in the flood risk area and the regulatory role of the local governmental agency.

(iv) The procedure by which the designation may be appealed.

(5) The department shall consider additional flood risk areas as may be proposed by local governmental agencies, citizens, or interested groups.

(6) In the absence of an approved local ordinance enacted pursuant to the provisions of sections 7, 8, 9, and 10 of the act or other approved ordinance which meets or exceeds the requirements in these rules, a person or local governmental agency proposing a new permanent structure or an enlargement of an existing permanent structure on a parcel, any portion of which is in a designated flood risk area, shall submit a permit application to the department for its review. The permit application shall contain all of the following information:

(a) A legal description of the property.

(b) A description of the proposed permanent structure.

(c) An elevation survey of the building site by a professional engineer or registered land surveyor that shows both of the following:

(i) A temporary bench mark which is within 100 feet of the proposed construction and which states the elevation of the bench mark in relation to the national geodetic vertical datum.

(ii) The proposed elevation of the lowest structural member which supports the floor, including the basement, but excluding all of the following:

(A) The footing.

(B) Pile caps.

(C) Piling.

(D) Nonstructural slabs.

(E) Girders.

(F) Grade beams.

(d) The means to be undertaken to prevent property loss.

(e) The signature and address of the applicant.

(7) A permit application for a new permanent structure on a parcel, any portion of which is in a designated flood risk area, shall be approved if it meets or exceeds the minimum requirements established in subrule (10) or (11) of this rule.

(8) Not more than 60 days after receipt of a permit application, the department shall send a notice of its approval or disapproval to the applicant. The reasons for disapproval shall be stated and sent by certified mail. A permit application which does not require a field investigation shall be processed within 20 days.

(9) Approval of a permit does not exempt the applicant from complying with other statutes, ordinances, or rules and regulations.

(10) New residential structures in a flood risk area shall be elevated so that the lowest portion of all horizontal structural members which support floors, excluding footings, pile caps, piling, nonstructural slabs, girders, and grade beams, is located at or above the 100-year flood elevation. All basement floor surfaces shall be located at or above the 100-year flood elevation. New and replacement electrical wiring and equipment and heating, ventilating, air conditioning, and other service facilities shall be either placed above the 100-year flood elevation or be protected so as to prevent water from entering or accumulating within the system components during floods up to the 100-year elevation. Duct insulation subject to water damage shall not be installed below the 100-year elevation.

(11) New nonresidential structures in a flood risk area shall be in compliance with either of the following requirements:

(a) Meet the requirements of new residential structures as provided for in subrule (10) of this rule.

(b) Together with attendant utility and sanitary facilities, be certified by a professional engineer or architect to have been designed so that, below the elevation defining the flood risk area, the structure is watertight and able to withstand hydrostatic pressures from a water level equal to the elevation defining the flood risk area. All floor and wall penetrations for plumbing, mechanical, and electrical systems shall be made watertight to prevent flood water seepage or shall be provided with shutoff valves or closure devices to prevent backwater flow during flooding.

(12) An existing structure which is not in conformity with the elevation requirements of a designated flood risk area shall not be altered, enlarged, or otherwise extended in a manner that increases its nonconformity. If a nonconforming structure deteriorates or becomes damaged, it may be restored to its condition before the deterioration or damage if the repair costs are not more than 60% of the replacement value of the structure in any 12-month period. If, in any 12-month period, the cost of restoring the nonconforming structure is more than 60% of its replacement value, the requirements for new permanent structures shall apply.

(13) Any aggrieved party who contests the designation of a flood risk area under subrule (4) of this rule or the disapproval of a permit application shall be granted a hearing if a petition is filed with the department not more than 60 days after the notice of designation or notice of disapproval is sent. Such petition shall be sent to the director of the Department of Natural Resources, P.O. Box 30028, Lansing, Michigan 48909. The hearing shall be conducted in accordance with the provisions of Act No.

306 of the Public Acts of 1969, as amended, being S24.201 et seq. of the Michigan Compiled Laws.

(14) If the local unit of government has an approved ordinance enacted pursuant to the provisions of section 7, 8, 9, or 10 of the act or other approved ordinance, the department shall provide a period of 1 year from the date of notification to allow the local unit of government to adopt standards which equal or exceed the requirements in these rules.

(15) If the department determines that the requirements set forth in these rules are not being upheld by a local unit of government which has an approved ordinance, the department shall contact the local agency to identify, discuss, and attempt to resolve any problems. If the problem cannot be informally resolved, the department shall then notify the community, in writing, of its determination. The notice shall contain the specific reasons why the department believes the local unit of government has not upheld the approved ordinance. The local unit of government shall be provided a period of 60 days to respond to the department. If the department further determines that the local unit of government has not made sufficient changes to its ordinance administration or otherwise explained its actions, the department shall withdraw its approval and assume its flood risk area permitting authority within the jurisdiction.

(16) The landowner of record and the local governmental agency shall be sent a notice by certified mail if the flood risk area designation is removed.

(17) All flood risk area designations in existence on the effective date of these rules shall remain in full force and effect.

History: 1979 AC; 1981 AACS; 1992 AACS.

#### **R 281.26 Rescission.**

Rule 6. R 281.1 to R 281.19 of the Michigan Administrative Code, appearing on pages 7129 to 7132 of the 1974 Annual Supplement to the Code and pages 6 to 8 of Quarterly Supplement No. 87 to the Code, are rescinded.

History: 1979 AC.