

# Village of Estral Beach

## ORDINANCE NO. 1052B

### FLOOD CONTROL DEVICE ORDINANCE

An Ordinance to establish responsibilities, methods, and requirements for the construction, maintenance and repair of Flood Control Devices in Estral Beach Village (hereafter referred to as the Village), to provide for permits and the submission of plans and specifications to accomplish the same, and to provide penalties for the violations of the provisions hereof.

The Village of Estral Beach, Monroe County, Michigan hereby ordains:

#### **Section 1. Purpose.**

- 1.1 Estral Beach Village being cognizant of the conditions of Lake Erie and its tributaries, and that there is a potential for flooding, requires the continued existence of some form of Flood Control Devices along the lake front and other areas within the Village. The Village establishes this Flood Control Device Ordinance for the health, safety and welfare of its residents and property owners. The Village of Estral Beach adheres to the Flood Hazard Designation defined by the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMS) and participates in the National Flood Insurance Program (NFIP).

#### **Section 2. Ingress or Egress over Flood Control Devices.**

- 2.1 This ordinance shall not prohibit property owners of the Village, or their guests, or tenants from crossing the dikes or berms for the purpose of ingress or egress from their property to Lake Erie, Swan Creek, or to the canal connecting to Lake Erie.

#### **Section 3. Definitions.**

The following terms shall have the following meanings as used in this Ordinance:

- 3.1 "Berm" is a flood control structure made of clay or other impermeable material that prevents increased levels of stagnant water from passing from a water body to an area wishing to be maintained dry.
- 3.2 "Building Official" shall mean the appointed or contracted, State, or other qualified representative for the Village of Estral Beach whose function is to issue permits and to verify that the requirements of this ordinance are met.

## ORDINANCE NO. 1052B

### FLOOD CONTROL DEVICE ORDINANCE

- 3.3 “Flood Control Device” or “Flood Control Structures” shall include any structure whose primary purpose is to prevent or control the inundation or flooding on property affected by waters or levels of the Great Lakes or their connecting waters and tributaries as affected by levels of the Great Lakes. Flood Control Device shall include earthen and/or clay berms, cribbing, dikes, seawalls, and other barriers of which the primary purpose is flood control and property protection, and have a required top elevation.

Devices (i.e., clay berms, cribbing, and walls) installed by the Army Corp of Engineers in or about 1974 were referred to as “Operation Foresight” structures, and those installed in or about 1986 as “Advance Measure” structures. For the Advanced Measures, the Village agreed to “maintain and operate all works after completion, for a period of 25 years, without cost to the United States in a manner satisfactory to the Chief of Engineers.” As of 2011, the Village no longer has this commitment to the US Government, therefore, the lakefront property owner is now responsible to maintain, repair, and replace the rock filled cribbings or walls as required and specified within this ordinance. The Village will continue to maintain, repair, or replace the clay dikes, pump houses, and associated equipment.

- 3.4 “IGLD 85” is the acronym for the International Great Lakes Level Datum of 1985, a reference point to determine sea level. Convert from IGLD85 to NAVD88 by adding 3.33 inches (0.28 feet, say 0.3 feet) to IGLD85 for the Village (i.e., IGLD is lower than the corresponding NAVD88 value)
- 3.5 “NAVD 88” is the acronym for North American Vertical Datum of 1988, a surveying elevation measurement. NAVD 88 supersedes NGVD29, and is the value listed on the FIRMs.
- 3.6 “NGVD29” is the acronym for the National Geodetic Vertical Datum of 1929. NGVD29 was superseded by NAVD88.
- 3.7 “OHWM” is the acronym for the ordinary high water datum mark, which for Lake Erie is 572.2 feet IGLD85 (572.5 feet NAVD88).
- 3.8 “Property Owner” shall mean the owner(s) of record of the real property in the Village on which the Flood Control Device is located or required, and who is hereafter responsible for the maintenance, repair, or replacement of the rock filled cribbing, wall, and rip rap located along the lakefront.
- 3.9 “Riprap” means the loose, large rock placed along the lakeside of a flood wall to form a foundation to stabilize the base of the wall, minimize under-cutting, and dissipate the energy of the waves.

## ORDINANCE NO. 1052B

### FLOOD CONTROL DEVICE ORDINANCE

- 3.10 “Rock Cribbing” shall mean the structure built by the United States Army Corp of Engineers (USACE) to serve as a secondary wave action run off barrier. Constructed with pipes, fencing, and rocks which was reinforced on the land side with treated lumber.
- 3.11 “Wave Break” is any structure between the lake and the flood control device whose primary purpose is to prevent or control erosion, or dissipate the energy of the waves. This includes rip rap, slag, concrete decks, etc.

#### **Section 4. Flood Control Devices.**

- 4.1 Any property owner whose land abuts or adjoins Lake Erie or any of its tributaries or canals or designated flood districts, shall install and/or maintain a Flood Control Device in accordance with the requirements of this Ordinance. In the event that a pre-existing Flood Control Device has been constructed along the lake front and is located on such real property, the property owner shall maintain the Flood Control Device and any lakeside wave dissipation structures in good repair and in accordance with the requirements of this Ordinance.
- 4.2 The Building Official/Village Council shall be responsible for administering the provisions of this Ordinance. The Building Official/Village Council shall notify the property owners who are not in compliance, in writing, of such noncompliance and direct the property owner to apply for the necessary permits within 15 days of the date of the written notice, and to correct the violations within 30 days following receipt of all required permits.
- 4.3 The Flood Control Devices required by this Ordinance shall be constructed in accordance with the Contractor or property owner design submitted to the Village Building Department.
- 4.4 The replacement or repair of any Flood Control Structure shall be designed and constructed to withstand the force of the waves, and other hydraulic forces (e.g., buoyancy).
- 4.5 After consulting with the property owner about any concerns with the adequacy of the design, the Village Building Department shall have authorization to seek concurrence of design adequacy from a qualified engineer as needed. If the Village requests an engineering review, and the original design was adequate, the Village pays for the engineering review, otherwise, the engineering review is paid for by the property owner submitting the design.

## ORDINANCE NO. 1052B

### FLOOD CONTROL DEVICE ORDINANCE

- 4.6 Any existing Flood Control Structure shall be left in place unless replaced by a better design in accordance with this ordinance. The rock cribbings are beyond their design life, have deteriorated steel pipe supports, and should be replaced or incorporated into a better, more permanent structural design.
- 4.7 All lake front Flood Control Structures shall:
- a. be made of concrete or steel (motion # 3-04-5),
  - b. have at least an elevation of 581.0' IGLD85 (581.3' NAVD88),
  - c. have at least 40% of all steel sheet piling length sunk into the ground, with a higher percentage preferred, and
  - d. include a sufficient foundation and design for concrete walls to withstand the hydraulic forces it will encounter.
- 4.8 All Swan Creek and Canal Flood Control Structures north to 6928 Lakeshore Drive shall;
- a. be made of concrete or steel if the structure is a wall. Vinyl sheet piling is an acceptable alternative for the canal side where there is no wave action.
  - b. be made of clay, steel, etc. impermeable materials if the structure is a berm.
  - c. have at least an elevation of 577.2' IGLD85 (577.5' NAVD88).
  - d. include a drain in accordance with the design specifications or a means to move water from the land side of the structure to the canal or creek (e.g., sump pump).
- 4.9 All Canal Flood Control Structures north of and including 6928 Lakeshore Drive shall;
- a. be made of concrete or steel if the structure is a wall. Vinyl sheet piling is an acceptable alternative for the canal side where there is no wave action.
  - b. be made of clay, steel, etc. impermeable materials if the structure is a berm.
  - c. be equal to or less than the road height
- 4.10 New and repaired Flood Control Devices shall connect fully with the Flood Control Device erected on all adjoining properties.
- 4.11 For existing rock cribbing installed by the USACE, or steel or concrete walls, the wall or flood control structure may have riprap, deck, or other wave break measures or structure installed lake side of the cribbing or wall to reduce undercutting and dissipate wave energy prior to the wave or spray hitting the Flood Control Structure.
- 4.12 Trees, brush, and other woody vegetation shall not be allowed to grow in, on, or near the clay dikes or berms, nor shall such vegetation be allowed to grow on or out of rock cribbings.

## ORDINANCE NO. 1052B

### FLOOD CONTROL DEVICE ORDINANCE

#### **Section 5. Replacement, Modification, or Repair of Flood Control Devices.**

- 5.1 Any person or other legal entity desiring to install, replace, or modify an existing Flood Control Device on real property in the Village shall apply for a Village permit.
- 5.2 As needed, the Village permit application shall include a copy of the approved applicable Federal or State permits, such as USACE, Environment, Great Lakes and Energy (EGLE) [formerly Department of Environmental Quality (DEQ)], Department of Natural Resources (DNR), or any other required permit. EGLE determination is based on the OHWM.
- 5.3 Such application shall be accompanied by legible, detailed design plans (i.e., drawings) showing the location of installation, manner in which the Flood Control Structure is to be replaced, modified, or repaired, and how it will be tied into the adjoining Flood Control Device.
- 5.4 As needed, and after consulting with the property owner about any concerns with the adequacy of the design, outside engineering assistance may be sought by the Building Official/Village Council.
- 5.5 Permits pulled prior to the effective date of this ordinance shall be allowed to continue under the existing permit(s).
- 5.6 If the Building Official determines that such proposed replacement, or modification, or repair complies with the requirements of this Ordinance and that the replacement, or modification, or repair of said Flood Control Device shall not weaken the existing and/or adjoining Flood Control Devices, a permit shall be issued providing that such replacement, or modification, or repair shall be accomplished within 30 days of the date of said permit unless unforeseeable construction delays are encountered.
- 5.7 The Building Official may grant further extensions of 30 days to complete the construction of the replacement Flood Control Device if, in his/her opinion, good cause is shown for the extension due to unforeseeable delays. Each day that such work is not finished in the time provided on the permit/permit extension, shall be deemed a violation of this Ordinance.
- 5.8 When such replacement, or modification, or repair is completed, the permit holder shall notify the Building Official. The Building Official shall inspect such replacement, or modification, or repair of the Flood Control Device to ensure that the applicant has complied with the provisions of this Ordinance, and the plans and specifications provided

## ORDINANCE NO. 1052B

### FLOOD CONTROL DEVICE ORDINANCE

- 5.9 Replacement of Flood Control Structures required by this ordinance to be at or above 577.2' IGLD85 (577.5' NAVD88) must be accompanied by an elevation certificate prepared by a person competent in the use of surveying equipment using a known elevation mark (e.g., house elevation with a valid final elevation certificate), to be provided to the Building Official. The Building Official shall issue a Compliance Certificate if such work has been done pursuant to the permit, the plans and specifications, as well as requirements of State and Federal Agencies. The original or a legible copy of all permits and certificates shall be filed with the Village Building Records for the respective property.
- 5.10 If the replacement, or modification, or repair of the Flood Control Device has not been accomplished as provided by the plans, specifications, and the permit, the Building Official shall notify the permit holder in writing of the defects in workmanship. The Building Official will give the permit holder no more than 30 days from the time of notification to comply with such requirements. An extension to the 30 days may be granted if there are extenuating circumstances such as weather which justifies allowing more time. If such compliance is not accomplished within the time specified by the Building Official, each day of non-compliance shall be a violation of this Ordinance (see section 9. Penalties).
- 5.11 Any property owner owning land through which said dikes run or land abutting said dikes and desiring to landscape the dikes or any part thereof (except for deep rooted plants such as trees and shrubs), to provide dockage for personal use, to provide moorage for boats or other non-commercial uses which will not damage the dikes, shall apply to the Building Official in writing for a permit which shall state the purpose for which uses of the dikes is desired, and such permit shall be granted as long as the purpose is one not destructive to the dikes and is in compliance with this ordinance.

#### **Section 6. Flood Control Devices Standards.**

- 6.1 The minimum requirements for determining the building and/or construction standards for Flood Control Devices shall be as required by one or more of the following; Village Building Official, USACE, Professional Engineer, a qualified installer.
- 6.2 In the event that any repairs are needed because of damage or non-permitted changes or uncompleted Flood Control Devices by property owner or other entity as determined by the Building Official, Dike Coordinator, Village Council, or designee, the property holder must apply for a permit to have the device(s) repaired.

## **ORDINANCE NO. 1052B**

### **FLOOD CONTROL DEVICE ORDINANCE**

- 6.3 If the property holder fails or refuses to apply for a permit, and imminent damages could result because of the failure to repair, then the Village may take necessary emergency action to protect adjoining properties from flooding. The Village has the authority to make said repairs upon the property and the cost of repairs made by the Village shall constitute a lien upon said property. The Village will add the costs of the necessary repairs and improvements to the annual tax role as assessed by the Village and upon collection will thus be reimbursed. Collection to be distributed over the number of years determined by the Village Council to not put an undue burden on the property owner nor the Village.
- 6.4 Berms installed along the canal or Swan Creek shall have drain pipes with a means to prevent backflow of water onto the land, or other means to move water from the land side back to the canal (e.g., sump pump). The property owner is responsible for ensuring that the drain remains functional and open to drain once the water level recedes to support gravity drainage back to the body of water.

#### **Section 7. Inspections.**

- 7.1 The Building Official, Dike Coordinator, or other person designated by the Village Council shall conduct an annual inspection of all Flood Protection Devices and file his/her report with the Village Council who shall take action based upon the report's findings and recommendations.
- 7.2 Upon sufficient notice from the Village, the property owner shall make the Flood Control Devices accessible for inspection by the Building Official, Dike Coordinator, Engineer, or other Village representative. Any interference with such inspection after sufficient notice has been given shall be a violation of this ordinance.

#### **Section 8. Violations.**

- 8.1 It shall be unlawful for any person or persons to cause damage to any established Flood Control Device constructed to prevent the flooding or protection of property located within the Village.
- 8.2 It shall be unlawful for any person or persons, firm or corporation to cause the removal of any Flood Control Devices established within the Village to prevent flooding unless to replace it using the guidance contained within this ordinance.
- 8.3 This ordinance prohibits trespassing upon the dikes of the Village unless authorized by the Village Council.

## ORDINANCE NO. 1052B

### FLOOD CONTROL DEVICE ORDINANCE

- 8.4 It shall be unlawful for any property owner along the lakefront to fail to maintain and keep any Flood Control Devices in good repair.
- 8.5 After proper notification, it shall be unlawful for any property owner to interfere with inspection of the Flood Control Devices by a Village representative.

#### **Section 9. Penalties.**

- 9.1. Any person, firm or entity violating any provision of this ordinance shall be deemed responsible for a civil infraction. Penalties may be imposed as set forth in Ordinance 1057, the Village of Estral Beach Municipal Civil Infractions Ordinance, together with costs and all expenses, direct and indirect, to which the Village has been put in connection with the municipal civil infraction, including actual attorney fees, up to the entry of judgment.
- 9.2. Each and every day during which a violation of this ordinance shall exist shall be deemed to be a separate offense.
- 9.3. In addition to pursuing a municipal civil infraction proceeding, the Village may also initiate an appropriate action in a court of competent jurisdiction seeking injunctive, declaratory, or other equitable relief to enforce or interpret this ordinance or any provision of the ordinance. The Village shall be entitled to receive actual attorney fees expended for enforcement of this ordinance from any person found in violation.
- 9.4. All remedies available to the Village under this ordinance and Michigan law shall be deemed to be cumulative and not exclusive.
- 9.5. Any person, firm or entity that aids and abets a violation of this ordinance by assisting with or enabling the violation of this ordinance by another shall be considered to have violated this ordinance.
- 9.6. Any attempt to violate this ordinance shall be deemed a violation of the provision of this ordinance involved as if the violation had been successful or completed.

#### **Section 10. Severability**

- 10.1 Should any section, clause, or provision of this ordinance be declared by any court to be invalid, the same shall not affect the validity of the remaining portions of such section of this ordinance or any part thereof than the part so declared to be invalid.



**ORDINANCE NO. 1052B**

**FLOOD CONTROL DEVICE ORDINANCE**

**Section 11. Repeal.**

11.1 In the event of conflict between those regulations stipulated in other Village ordinances, those regulations found in this Ordinance shall take precedent.

11.2 This ordinance repeals Ordinances 1008, 1052, and 1052A in their entirety.

**Section 12. Effective Date.**

12.1 This within Ordinance shall be in full effect thirty (30) days after publication thereof.


Ordinance declared adopted on November 12, 2019

YEAS: (3) Debby Dare, Greg Knierim, Chris Mulligan

NAYS: (1) Jim Wiegand

ABSENT: (2) Adam Younglove, Jennifer Metcalf

Ordinance declared adopted on November 12, 2019.

  
\_\_\_\_\_

Danny Swindle

President, Village of Estral Beach

**ORDINANCE NO. 1052B**

**FLOOD CONTROL DEVICE ORDINANCE**

**CERTIFICATE OF ADOPTION AND PUBLICATION**

I, Carol A. Vandercook, being duly elected, Clerk of the Village of Estral Beach, County of Monroe, and State of Michigan, do certify that the foregoing Ordinance was duly adopted by the Village Council of the Village of Estral Beach as hereinabove set forth; and that the insertion of true copy thereof in the Monroe Publishing, which is a duly qualified newspaper circulating within the Village of Estral Beach on November 20, 2019.

*Carol A. Vandercook*

Carol A. Vandercook

Village Clerk

**AFFIDAVIT OF PUBLICATION**

**STATE OF MICHIGAN  
COUNTY OF MONROE**

**SS**

**NOTICE VILLAGE OF  
ESTRAL BEACH**

The Village of Estral Beach revised ordinances 1057 "Municipal Civil Infractions" and 1052, "Flood Control Device Ordinance". These ordinances can be viewed in full at the Village Hall by appointment with the Village Clerk at 586-8380.  
November 20, 2019

Patricia O'Brien being first duly sworn, says that she is the Principal Clerk of The Monroe News, a newspaper published in the English language for the dissemination of local or transmitted news and intelligence of a general character and legal news and which is a duly qualified newspaper, published and circulated in the County of Monroe. The annexed notice is a printed copy contained in said newspaper, and has been duly published in said newspaper for one insertions, and that the first publication thereof was on the 20th day of November A.D. 2019 and the last publication thereof was on the 20th day of November A.D. 2019.

*O'Brien*

Sworn to and subscribed before me this 3rd day of December A.D. 2019.

*Janet Latondress*

JANET LATONDRESS  
NOTARY PUBLIC - STATE OF MICHIGAN  
COUNTY OF MONROE  
My Commission Expires January 25, 2025  
Acting in the County of \_\_\_\_\_

My commission expires \_\_\_\_\_

Notary Public, Monroe County, Mich.