

Article 21

Floodplains

Section 21.01 Intent

- (a) **Findings of Fact.** Floodplains of La Porte County are important natural resources that provide multiple beneficial functions, including:
- (1) Storage of floodwaters, which reduces flashiness and downstream flooding hazards,
 - (2) Storage of sediments deposited by floodwaters,
 - (3) Filtering and transformation of pollutants from adjacent lands and floodwaters,
 - (4) Shading of waterways, providing regulation of in-stream temperature,
 - (5) Habitat for aquatic and upland wildlife,
 - (6) Stabilization of banks, which reduces erosion and minimizes the necessity of riprap or other erosion control methods,
 - (7) Storage and filtration of stormwater, and
 - (8) Scenic and recreational value.
- (b) **Destruction of Floodplains.** Whether incremental or large-scale, destruction of floodplains compromises the ability of the ecosystem to provide the functions listed above. Structures placed in floodplains can be subjected to subsidence or damage from floodwaters, and can contribute to downstream pollution.
- (c) **Statement of Purpose.** It is the purpose of this article to protect the riparian resources of La Porte County in order to protect public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:
- (1) Protect human life and health from floodwaters;
 - (2) Restrict or prohibit uses which create hazards to health, safety, natural resources or property, due to increases in erosion or in flood heights or velocities;
 - (3) Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
 - (4) Control the alteration of natural floodplains, stream channels, and natural protective barriers which accommodate flood waters;
 - (5) Control filling, grading, dredging, and other alterations of the land which may increase erosion or flood damage;
 - (6) Prevent or regulate the construction of flood barriers which will unnaturally divert floodwaters or may increase flood hazards to other lands;
 - (7) Make federally subsidized flood insurance available for structures and their contents by fulfilling the requirements of the National Flood Insurance Program;
 - (8) Minimize expenditure of public money for costly flood control projects;
 - (9) Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;

- (10) Minimize prolonged business interruptions;
- (11) Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, and bridges located in floodplains;
- (12) Make potential home buyers aware that property is in a flood area;
- (13) Maintain the chemical, physical and biological integrity of water resources;
- (14) Achieve no net loss in the quantity, quality and biological diversity of floodplain areas and functions; and
- (15) Replace floodplain acreage, and functions where avoidance of activities is not practical and all practical measures have been taken to reduce impacts.

Section 21.02 Lands to which this Article Applies

This article shall apply to all special flood hazard areas (SFHA) within the jurisdiction of La Porte County, the city of La Porte and the city of Michigan City.

Section 21.03 Activities Allowed by Right

The following uses are allowed in riparian areas without a permit, provided they do not involve hydrologic modifications or fills:

- (a) Private wildlife sanctuaries, woodland preserves;
- (b) Outdoor recreation including nature study, hiking, horseback riding, swimming, camping, trapping, hunting, fishing, shell fishing, cross-country skiing where otherwise legally permitted;
- (c) Open space uses incidental to the enjoyment and maintenance of adjacent residential, commercial and industrial property such as open space for subdivisions and building setback areas;
- (d) Maintenance and repair of existing ditches, watercourses, farm ponds, utilities, roadways provided the activity does not involve the expansion of roadways or related improvements into previously unimpacted areas; and
- (e) The enhancement or restoration of riparian areas less than one (1) acre and not associated with any development proposal.

Section 21.04 Establishment of Floodplain Development Permit

A floodplain development permit shall be required in conformance with the provisions of this article prior to the commencement of any development activities in SFHAs. Development activities include filling, excavation, grading, dredging, construction, clear-cutting, removal of peat, sand or gravel, alteration of the water table, alteration of flood-retention characteristics, alteration of surface drainage characteristics.

Section 21.05 Compliance

No structure shall hereafter be located, extended, converted or structurally altered within the SFHA without full compliance with the terms of this article and other applicable regulations. No land or stream within the SFHA shall hereafter be altered without full compliance with the terms of this article and other applicable regulations.

Section 21.06 Duties and Responsibilities of Enforcement Official

- (a) The enforcement official and/or designee is hereby authorized and directed to enforce the provisions of this article. The enforcement official is further authorized to render interpretations of this article which are consistent with its spirit and purpose.
- (b) Duties and responsibilities of the enforcement official shall include, but not be limited to:
- (1) Review all floodplain development permits to assure that the permit requirements of this article have been satisfied.
 - (2) Inspect and inventory damaged structures in SFHA and complete substantial damage determinations.
 - (3) Ensure that construction authorization has been granted by the Indiana Department of Natural Resources (IDNR) for all development projects subject to section 21.14 and 21.16(a), and maintain a record of such authorization (either copy of actual permit or floodplain analysis/regulatory assessment).
 - (4) Ensure that all necessary federal or state permits have been received prior to issuance of the local floodplain development permit. Copies of such permits are to be maintained on file with the floodplain development permit.
 - (5) Notify adjacent communities and the State Floodplain Coordinator prior to any alteration or relocation of a watercourse, and submit copies of such notification to Federal Emergency Management Agency (FEMA).
 - (6) Maintain for public inspection, and furnish upon request, local permit documents, damaged structure inventories, substantial damage determinations, regulatory flood data, SFHA maps, Letters of Map Amendment (LOMA), Letters of Map Revision (LOMR), copies of IDNR permits and floodplain analysis and regulatory assessments (letters of recommendation), federal permit documents, and “as-built” elevation and flood proofing data for all buildings constructed subject to this article.
 - (7) Utilize and enforce all Letters of Map Revision (LOMR) or Physical Map Revisions (PMR) issued by FEMA for the currently effective SFHA maps of the community.
 - (8) Assure that maintenance is provided within the altered or relocated portion of the watercourse so that the flood carrying-capacity is not diminished.
 - (9) Verify and record the actual elevation of the lowest floor (including basement) of all new or substantially improved structures, in accordance with section 21.07.
 - (10) Verify and record the actual elevation to which any new or substantially improved structures have been floodproofed, in accordance with section 21.07.
 - (11) Review certified plans and specifications for compliance.
 - (12) Issue stop work orders, in accordance with the following:
 - a. Upon notice from the enforcement official, that work on any building, structure or premises being done contrary to the provisions of this article shall immediately cease.
 - b. Such notice shall be in writing and shall be given to the owner of the property, or to his or her agent, or to the person doing the work, and shall state the conditions under which work may be resumed.
 - (13) Revocation of permits.

- a. The enforcement official may revoke a permit or approval issued under the provisions of this article, in cases where there has been any false statement or misrepresentation as to the material facts in the application or plans on which the permit or approval was based.
- b. The enforcement official may revoke a permit upon determination by the enforcement official that the construction, erection, alteration, repair, moving, demolition, installation, or replacement of the structure for which the permit was issued is in violation of, or not in conformity with, the provisions of this article.

Section 21.07 Permit Procedures

Prior to any development activities, application shall be made to the enforcement official for a floodplain development permit. The application shall be submitted on a form provided by the enforcement official, accompanied by a fee and the following additional information:

(a) **Application Stage.**

- (1) Name, address and contact information of property owner and applicant (if different);
- (2) A description of the proposed development activity;
- (3) Location of the proposed development activity sufficient to accurately locate property and structure in relation to existing roads, streams and other waterbodies;
- (4) A legal description of the property;
- (5) A site development plan showing existing and proposed building and structure locations and existing and proposed land grades;
- (6) A description of all grading, filling and vegetation removal proposed by the development plan;
- (7) An explanation of why this activity cannot be located at an upland site;
- (8) A description of all measures proposed to reduce or compensate for project impacts;
- (9) Photographs of the proposed project site showing the existing condition;
- (10) Elevation of the 100 year flood, and floodplain and floodway boundaries at the project site;
- (11) Elevation of the top of the lowest floor (including basement) of all proposed buildings. Elevation should be in NAVD 88 or NGVD;
- (12) Elevation (in NAVD 88 or NGVD) to which any non-residential structure will be flood-proofed;
- (13) Description of the extent to which any watercourse will be altered or impacted as a result of proposed development;
- (14) Map of any wetlands that might be impacted by the proposed development activity
- (15) Description of construction sequencing and timetable for proposed activities, including a description of future phases of the project.

(b) **Additional Information.** The enforcement official may also require a permit applicant to submit additional information if the enforcement official deems such information necessary to determine the compliance of a proposed activity with the standards and criteria set forth in the article. Such information may include:

- (1) Description of ecological communities and functions;
- (2) Description of how the development activity will change, diminish, or enhance the ecological communities and functions;

- (3) Name, address, professional status, license number, and phone number of the person who is to prepare the riparian management or mitigation plan;
 - (4) More detailed site plans;
 - (5) Engineering reports and analyses where the proposed activity may be subject to flood or erosion hazards, or increase such hazards or other types;
 - (6) Mapping or description of soil types where onsite waste disposal is proposed; and
 - (7) Analysis of chemical or physical characteristics of any fill material.
- (c) **Mitigation Plan.** In addition, the enforcement official shall require the permit applicant to submit a riparian management and/or a compensatory mitigation plan.
- (d) **Construction Stage.** Upon placement of the lowest floor, or floodproofing, it shall be the duty of the permit holder to submit to the enforcement official a certification of the NAVD 88 elevation of the lowest floor or floodproofed elevation, as built. This certification shall be prepared by or under the direct supervision of a registered land surveyor or professional engineer and certified by that individual. When floodproofing is utilized for a particular structure, the certification shall be prepared by or under the direct supervision of a professional engineer or licensed architect and certified by that individual. Any work undertaken prior to submission of the certification shall be at the permit holder's risk. (The enforcement official shall review the lowest floor and floodproofing elevation survey data submitted.) The permit holder shall correct deficiencies detected by such review before any further work is allowed to proceed. Failure to submit the survey or failure to make the corrections required hereby shall be cause to issue a stop work order for the project. All permits shall be valid for a period of one (1) year from the date of issuance, unless the enforcement official indicates otherwise.

Section 21.08 Basis for Establishing Regulatory Flood Data

- (a) This article's protection standard is the regulatory flood. The regulatory flood elevation, floodway, and fringe limits for each of the unstudied SFHAs of the county and cities delineated as an "A Zone" on the FIRM of La Porte County and the cities of La Porte, and Michigan City shall be according to the best data available, as provided by the IDNR and confirmed by engineering hydrologic/hydraulic study.
- (b) Whenever a party disagrees with the best available data, the party submitting the detailed engineering study needs to replace existing data with more detailed data and submit it to the IDNR for review and approval.

Section 21.09 Discrepancy between Mapped Floodplain and Actual Ground Elevations

- (a) In cases where there is a discrepancy between the mapped floodplain (SFHA) on the FIRM and the actual ground elevations, the elevation provided on the profiles shall govern.
- (b) If the elevation of the site in question is below the base flood elevation, that site shall be included in the SFHA and regulated accordingly.
- (c) If the elevation (natural grade) of the site in question is above the base flood elevation, that site shall be considered outside the SFHA and the floodplain regulations will not be applied. All grades in question shall require a determination by a professional engineer or surveyor licensed in the state of Indiana using standard water surface profiling methods to confirm the 100 year floodplain limits within the entire section considered to be in question. The property owner should be advised to apply for a LOMA or LOMR.

Section 21.10 Preventing Increased Damages

No development in the SFHA shall create a damaging or potentially damaging increase in flood heights or velocity or threat to public health and safety.

- (a) Within the floodway identified on the flood boundary and floodway map or the flood insurance rate map, the following standards shall apply:
 - (1) No structures intended for occupancy shall be constructed within the 100 year floodway limits.
 - (2) No development shall be allowed which acting alone or in combination with other development, shall cause any increase in the elevation of the regulatory flood; and
 - (3) For all projects involving channel modifications or fill, including levees, the county or city shall submit a request to the FEMA to revise the regulatory flood data.
- (b) Within all SFHAs identified as A zones, where no 100-year flood elevation and/or floodway/floodway fringe delineation has been provided, the total cumulative effect of the proposed development activity, when combined with all other existing and anticipated development, shall not increase the regulatory flood elevation and will not increase flood damages or potential flood damages.
- (c) All effects on the backwater surface profile shall be modeled and submitted for review for any construction and/or grading activity. Backwater effects shall be minimized and shall not exceed current State and Federal standards. In for case shall backwater effects exceed 0.10 foot of water surface profile increase.
- (d) Any fill deposited in the floodplain or floodway as part of the development project shall be compensated for with creation of additional floodwater storage, at a volumetric ratio of 1:1. See 21.11 (k).
- (e) Public health standards in all SFHAs.
 - (1) The location or storage of chemicals, explosives, buoyant materials, flammable liquids, pollutants, or other hazardous or toxic materials below the flood protection grade (FPG) shall not be permitted.
 - (2) New and replacement sanitary sewer lines may be permitted providing all manholes or other aboveground openings are elevated above the FPG.

Section 21.11 General Standards

In all SFHAs the following requirements shall be met:

- (a) No structures intended for occupancy shall be constructed within the 100 year floodway limits.
- (b) New construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure.
- (c) Manufactured homes shall be anchored to prevent flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This standard shall be in addition to and consistent with applicable state requirements for resisting wind forces.
- (d) New construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage below the FPG.

- (e) New construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.
- (f) Electrical, heating, ventilation, plumbing, air conditioning equipment and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
- (g) New and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system.
- (h) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the system, or infiltration of incompletely treated wastewater into the waterway.
- (i) On-site waste disposal systems shall be located and constructed to prevent impairment to the system or contamination from the system during flooding or during normal flows.
- (j) Any alteration, repair, reconstruction or improvements to a structure that is in compliance with the provisions of this article shall adhere to the requirements of “new construction” as contained in this article.
- (k) Any alteration, repair, reconstruction or improvement to a structure that is not in compliance with the provisions of this article, shall be undertaken only if the non-conformity is not furthered, extended, or expanded. Once a nonconforming structure is removed, it shall not be replaced.
- (l) Whenever any portion of the SFHA is authorized for use, the volume of space which will be occupied by the authorized fill or structure below the BFE shall be compensated for and balanced by an equivalent volume of excavation taken below the BFE. The excavation volume shall be at least equal to the volume of storage lost (replacement ratio of one to one) due to the fill or structure.
 - (1) The excavation shall take place in the floodplain and in the same immediate water course in which the authorized fill or structure is located;
 - (2) Under certain circumstances, the excavation may be allowed to take place outside of, but adjacent to, the floodplain; provided that the excavated volume will be below the regulatory flood elevation, will be in the same immediate watershed in which the authorized fill or structure is located, will be accessible to the regulatory flood water, will not be subject to ponding when not inundated by flood water, and shall not be refilled;
 - (3) The fill or structure shall not obstruct a drainage way leading to the floodplain;
 - (4) The fill or structure shall be of a material deemed stable enough to remain firm and in place during periods of flooding and shall include provisions to protect adjacent property owners against any increased runoff or drainage resulting from its placement; and
 - (5) Plans depicting the areas to be excavated and filled shall be submitted prior to the actual start of construction on any work site. Upon completion of the site work, but before the actual start of construction, the applicant shall provide to the enforcement official a certified survey of the excavation and fill sites demonstrating that the fill and excavation comply with this section.

Section 21.12 Specific Standards

In all SFHAs, the following provisions are required:

- (a) In addition to the requirements of section 21.11, all structures to be located in the SFHA shall be protected from flood damage below the FPG. This building protection requirement applies to the following situations:
 - (1) Construction or placement of any new structure having a floor area greater than 400 square feet;

- (2) Structural alterations made to:
 - a. An existing (previously unaltered) structure, the cost of which equals or exceeds 50% of the value of the pre-altered structure (excluding the value of the land);
 - b. Any previously altered structure.
 - (3) Reconstruction or repairs made to a damaged structure that are valued at or more than 50% of the market value of the structure (excluding the value of the land) before damage occurred;
 - (4) Installing a travel trailer or recreational vehicle on a site for more than 180 days;
 - (5) Installing a manufactured home on a new site or a new manufactured home on an existing site. This article does not apply to returning the existing manufactured home to the same site it lawfully occupied before it was removed to avoid flood damage; and
 - (6) Reconstruction or repairs made to a repetitive loss structure.
- (b) **Residential Construction.** New construction or substantial improvement of any residential structure (or manufactured home) shall have the lowest floor, including basement, at or above the FPG (two (2) feet above the base flood elevation). Should solid foundation perimeter walls be used to elevate a structure, openings sufficient to facilitate the unimpeded movements of floodwaters shall be provided in accordance with the standards of division (d) below.
- (c) **Non-Residential Construction.** New construction or substantial improvement of any commercial, industrial, or non-residential structure (or manufactured home) shall have the lowest floor, including basement, elevated to or above the FPG. Structures located in all “A Zones” may be floodproofed in lieu of being elevated if done in accordance with the following:
- (1) A registered professional engineer or licensed architect shall certify that the structure has been designed so that below the FPG, the structure and attendant facilities are watertight and capable of resisting the effects of the regulatory flood. The structural design shall take into account flood velocities, duration, rate of rise, hydrostatic pressures, and impacts from debris or ice. Such certification shall be provided to the enforcement official, as set forth in section 21.06(b)(10).
 - (2) Floodproofing measures shall be operable without human intervention and without an outside source of electricity.
- (d) **Elevated Structures.**
- (1) New construction or substantial improvements of elevated structures that include fully enclosed areas formed by foundation and other exterior walls below the FPG shall be designed to preclude finished living space and designed to allow for the entry and exit of floodwaters to automatically equalize hydrostatic flood forces on exterior walls.
 - (2) Structural calculations shall be submitted demonstrating sufficient structural capacity is provided in accordance with this ordinance.
 - (3) Designs for complying with this requirement must either be certified by a professional engineer or licensed architect or meet the following minimum criteria:
 - a. Provide a minimum of two (2) openings that have a total net area of not less than one (1) square inch for every one (1) square foot of enclosed area;
 - b. The bottom of all openings shall be no higher than one (1) foot above foundation interior grade (which must be equal to in elevation or higher than the exterior foundation grade);
 - c. Openings may be equipped with screens, louvers, valves or other coverings or devices provided they permit the automatic flow of floodwaters in both directions;

- d. Access to the enclosed area shall be no more than the minimum necessary to allow for parking vehicles (garage door) or limited storage of maintenance equipment used in connection with the premises (standard exterior door) or entry to the living area (stairway or elevator);
 - e. The interior portion of the enclosed area shall not be partitioned or finished into separate rooms; and
 - f. Portions of the building below the FPG must be constructed with materials resistant to flood damage.
- (4) Where elevation requirements exceed six (6) feet above the highest adjacent grade, a copy of a legally recorded deed restriction prohibiting the conversion of the area below the lowest floor to a use or dimension contrary to the structure's originally approved design, shall be presented as a condition of issuance of the final certificate of occupancy.
- (e) **Structures Constructed On Fill.** A residential or nonresidential structure may be constructed in a permanent fill in accordance with the following:
- (1) The fill shall be placed in layers no greater than one (1) foot deep before compacting to 95% of the maximum density obtainable with the Standard Proctor Test method.
 - (2) The fill shall extend at least 10 feet beyond the foundation of the structure before sloping below the FPG.
 - (3) The fill shall be protected against erosion and scour during flooding by vegetative cover, riprap, or bulkheading. If vegetative cover is used, the slopes shall be no steeper than three horizontal to one vertical.
 - (4) The fill shall not adversely affect the flow of surface drainage from or onto neighboring properties.
 - (5) The top of the lowest floor, including basements, shall be above the FPG.
- (f) **Structures Constructed with a Crawlspace.** A residential or nonresidential structure may be constructed with a crawlspace located below the FPG, provided that the following conditions are met:
- (1) The building must be designed and adequately anchored to resist flotation, collapse, and lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;
 - (2) Any enclosed area below the FPG shall have openings that equalize hydrostatic pressures by allowing for the automatic entry and exit of floodwaters.
 - (3) A minimum of two (2) openings having a total net area of not less than one (1) square inch per square foot of enclosed area is provided. The bottom of the openings shall be no more than one (1) foot above grade;
 - (4) The interior height of the crawlspace measured from the interior grade of the crawlspace to the top of the foundation wall must not exceed four (4) feet at any point;
 - (5) Utility systems within the crawlspace must be elevated above the FPG;
 - (6) An adequate drainage system must be installed to remove floodwaters from the interior area of the crawlspace within a reasonable period of time after a flood event;
 - (7) Portions of the building below the FPG must be constructed with materials resistant to flood damage; and
 - (8) Utility systems within the crawlspace must be elevated above the FPG.

- (g) **Manufactured Homes and Recreational Vehicles.** Manufactured homes and recreational vehicles to be installed or substantially improved on a site for more than 180 days must meet the following requirements:
- (1) The manufactured home shall be elevated on a permanent foundation such that the lowest floor shall be at or above the FPG and securely anchored to an approved foundation system to resist flotation, collapse, and lateral movement. This requirement applies to all manufactured homes to be placed on a site:
 - a. Outside a manufactured home park or subdivision;
 - b. In a new manufactured home park or subdivision;
 - c. In an expansion to an existing manufactured home park or subdivision; or
 - d. In an existing manufactured home park or subdivision on which a manufactured home has incurred “substantial damage” as a result of a flood.
 - (2) Recreational vehicles placed on a site shall either:
 - a. Be on site for less than 180 days;
 - b. Be fully licensed and ready for highway use (defined as being on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions); or
 - c. Meet the requirements for “manufactured homes” as state earlier in this section.

Section 21.13 Critical Facility

Construction of new critical facilities such as schools, nursing homes, hospitals, police, fire, and emergency response installations, installations which produce, use or store hazardous materials or hazardous waste shall be, to the extent possible, located outside the limits of the SFHA. Construction of new critical facilities shall be permissible within the SFHA if no feasible alternative site is available. Critical facilities constructed within the SFHA shall have the lowest floor elevated to or above the FPG at the site. Floodproofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into floodwaters. Access routes elevated to or above the FPG shall be provided to all critical facilities to the extent possible. Critical facilities shall not be constructed within the limits of any floodway.

Section 21.14 Standards for Identified Floodways

- (a) Located within SFHAs established in section 21.08, are areas designated as floodways. The floodway is an extremely hazardous area due to the velocity of floodwaters, which carry debris, and potential projectiles and also create erosion potential. If the proposed site is in an identified floodway, the enforcement official shall require the applicant to forward the application, along with all pertinent plans and specifications, to the IDNR and apply for a permit for construction in a floodway. Under the provisions of I.C. 14-28-1, a permit for construction in a floodway from the IDNR is required prior to the issuance of a local building permit for any excavation, deposit, construction or obstruction activity located in the floodway. This includes land preparation activities such as filling, grading, clearing, paving, and the like, undertaken before the actual start of construction of the structure. However, it does exclude non-substantial additions/improvements to existing (lawful) residences in a non-boundary river floodway. (I.C. 14-28-1-26 allows construction of non-substantial additions/improvements to residences in a non-boundary river floodway without obtaining a permit for construction in a floodway from the IDNR. Non-substantial additions/improvements shall be

based upon IDNR floodplain management rules and are generally defined as improvements/additions that are less than 50% of the market value of the building. Note that, if fill is needed to elevate an addition above the existing grade, prior approval (construction in a floodway permit) for the fill is required from the IDNR.)

- (b) No action shall be taken by the enforcement official until a permit (when applicable) has been issued by the IDNR granting approval for construction in a floodway. Once a permit for construction in a floodway has been issued by the IDNR, the enforcement official may issue the local floodplain development permit, provided the provisions contained in section 21.10 through 21.16 have been met. The floodplain development permit cannot be less restrictive than the permit for construction in a floodway issued by the IDNR. However, a community's more restrictive regulations (if any) shall take precedence.
- (c) No development shall be allowed which acting alone or in combination with existing or future development, will increase the regulatory flood.
- (d) For all projects involving channel modifications or fill (including levees) the county or city shall submit the data and request that the FEMA revise the regulatory flood data.

Section 21.15 Standards for Identified Floodway Fringe

If the site is located in an identified floodway fringe, the enforcement official may issue the local floodplain development permit provided the provisions contained in section 21.07 through 21.16 have been met.

Section 21.16 Standards for SFHAS without Established Base Flood Elevation and/or Floodways/Fringes

- (a) The following standards apply if the drainage area upstream of the proposed development site is greater than one square mile:
 - (1) If the site is an identified floodplain where the limits of the floodway and fringe have not yet been determined, and the drainage area upstream of the site is greater than one square mile, the enforcement official shall require the applicant to forward the application, along with all pertinent plans and specifications, to the IDNR for review and comment.
 - (2) No action shall be taken by the enforcement official until either a permit has been issued for construction in the floodway, or a floodplain analysis/regulatory assessment that cites the 100-year flood elevation and the recommended FPG has been received from the IDNR.
 - (3) Once the enforcement official has received the proper permit for construction in a floodway, or a floodplain analysis/regulatory assessment approving the proposed development, a floodplain development permit may be issued, provided the conditions of the floodplain development permit are not less restrictive than the conditions received from the IDNR and the provisions contained in section 21.10 through 21.16 have been met.
- (b) The following standards apply if the drainage area upstream of the proposed development site is less than one (1) square mile.
 - (1) If the site is in an identified floodplain where the limits of the floodway and fringe have not yet been determined and the drainage area upstream of the site is less than one square mile, the enforcement official shall require the applicant to provide an engineering analysis showing the limits of the floodway, fringe and 100-year flood elevation for the site.

- (2) Upon receipt, the enforcement official may issue the local floodplain development permit, provided the provisions contained in section 21.10 through 21.16 have been met.
- (c) The total cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the regulatory flood and will not increase flood damages or potential flood damages.
- (d) No structures intended for occupancy shall be constructed within the floodway.

Section 21.17 Standards for Subdivision Proposals

- (a) The enforcement official shall review all proposed subdivisions to determine whether the subdivision lies in a SFHA, as defined elsewhere by this article. If the enforcement official finds the subdivision to be so located, the enforcement official shall forward plans and materials to the IDNR for review and comment. The enforcement official shall require appropriate changes and modifications in order to assure that:
 - (1) The subdivision proposal is consistent with the need to minimize flood damages;
 - (2) All public utilities and facilities, such as sewer, gas, electrical, and water systems are located and constructed to prevent flood damage;
 - (3) Adequate drainage is provided to reduce exposure to flood hazards;
 - (4) On-site waste disposal systems, if provided, will be located and designed to avoid their impairment, and to prevent them from being a source of contamination during the occurrence of the regulatory flood.
- (b) Developers shall record the 100-year flood elevation on all subdivision plats containing lands identified elsewhere by ordinance as within a SFHA prior to submitting the plats for approval by the plan commission.
- (c) All owners of manufactured home parks or subdivisions located within the SFHA identified as zone A on the community's FHBM or FIRM shall develop an evacuation plan for those lots located in zone A and file it with the local plan commission and have it filed and approved by the appropriate community emergency management authorities.

Section 21.18 Riparian Management Plan

- (a) The enforcement official shall require that a permit applicant submit a riparian management plan if the enforcement official believes such a plan is needed to meet the standards of this article, including conditions attached to permit issuance. Such a management plan may include the procedures and timing of the proposed project, water level manipulation, removal of exotic species, replanting (if necessary) and other active management activities over time. The riparian management plan may also be combined with a compensatory mitigation plan as provided in Sections 21.10 and 21.11 of this article.
- (b) The riparian management plan shall be consistent with the following requirements:
 - (1) The plan shall describe all conservation and/or land management techniques that will be used to conserve and restore the riparian area.
 - (2) The plan shall specify any management activities that will be carried out over time, and methods or techniques for implementing the activities.

- (3) The plan shall specify the professional and personnel resources that will be committed to monitoring and managing the riparian area.
- (4) The plan shall specify construction methods that identify and protect riparian habitat that is to be left unaltered.
- (5) Site development shall accommodate the topography and soil so as to create the least potential for vegetation loss and site disturbance.
- (6) Vegetation and soil removal shall be limited to the minimum amount necessary for the development of the site.
- (7) Temporary vegetation, sufficient to stabilize the soil, may be required on all disturbed areas as necessary to prevent soil erosion. New plantings shall be given sufficient water and protection to insure reestablishment.
- (8) If the proposed development would affect the banks of the stream or river, bank stabilization techniques shall be required to prevent erosion.

Section 21.19 Compensatory Mitigation

- (a) The applicant shall be required to submit a compensatory mitigation plan developed by qualified professional if it is determined that such a plan is needed to meet the standards of this article. The standards of this article include no net loss of riparian area functions, values, acreage and flood storage, and any conditions attached to the issuance of a floodplain permit. Compensatory mitigation measures may take the form of riparian area restoration, creation or enhancement. Compensatory mitigation plans shall include design, implementation, maintenance, and monitoring elements. Plans shall include a description of the mitigation area, existing and proposed topography at one (1) foot contour intervals, any proposed fill (including source of the fill) or stockpiling, proposed excavation, planting plans (including source of plants) and erosion control measures.
- (b) A compensatory mitigation plan shall also include, at a minimum:
 - (1) The restoration of vegetation that is native to the site;
 - (2) Periodic monitoring of mitigation features;
 - (3) Maintenance and replacement of damaged plants or other features; and
 - (4) A proposal for posting a performance bond or other financial guarantee.
- (c) In general, compensatory mitigation shall be onsite and in kind. However, the enforcement official may allow use of offsite and out-of-kind mitigation including the use of mitigation banks if such use will have net ecological benefits, will not cause nuisances, will not violate other laws, and will not result in fragmentation of the riparian ecological system. Use of mitigation banks will be allowed to compensate for impacts only where onsite measures are applied to insure that flooding, water pollution, erosion, and other problems do not occur at the original site.
- (d) Where feasible, mitigation projects shall be completed prior to development activities. In other cases, mitigation shall be completed immediately following disturbance and prior to use or occupancy of the activity. There shall be no introduction of any plant or wildlife that is not native to the area into a mitigation project, unless authorized by a state or federal permit.
- (e) In general the following ratios shall be provided for floodplain storage, restoration, and enhancement: 1:1 for storage, 2:1 for restoration, and 6:1 for enhancement. The enforcement official may increase the ratios if uncertainties exist with regard to the success of the proposed mitigation, a significant period of time will elapse between impact and mitigation of riparian area functions, or the impact was

unauthorized. The enforcement official may decrease the ratios if the proposed mitigation has a high likelihood of success, the proposed mitigation will provide functions and values significantly greater than the floodplain area being impacted, or the proposed mitigation is conducted in advance of the impact and has been shown to be successful.

- (f) In evaluating the adequacy of proposed compensatory mitigation, the enforcement official shall consider its effectiveness in avoiding impacts, minimizing impacts, rectifying the impacts, reducing or eliminating the impacts over time; and compensating for the impacts. The following shall be considered:
- (1) The risk of failure of the proposed mitigation project based upon the difficulty with which this type of riparian area is restored, created, or enhanced; the experience and expertise of the individual or individuals proposing to carry out the mitigation; the proposed buffer and other protection measures; and the proposed management, monitoring and maintenance;
 - (2) The societal and natural resources value of riparian functions provided by the mitigation plan in comparison to the societal and natural resources value of the functions of the original riparian area;
 - (3) Whether the proposed mitigation will require long term maintenance and, if so, the adequacy of any proposed maintenance; and
 - (4) The need for long term monitoring and how such monitoring will be provided.

Section 21.20 Waiver

- (a) **Natural Features Review Committee.** A natural features review committee shall be appointed for the county and each city to hear and decide on requests for waivers to the requirements of this article. The natural features review committee shall consist of the enforcement official, the city engineer or county highway engineer and one (1) member of the board of zoning appeals.
- (b) **Waiver Procedures.** In granting waivers, the natural features review committee shall consider all technical evaluations, all relevant factors, all standards specified in other sections of this article, and:
- (1) The danger to life and property due to flooding or erosion damage;
 - (2) The susceptibility of the proposed facility, and its contents to flood damage, and the effect of such damage on the individual owner, and on the integrity of the adjacent natural resources;
 - (3) The importance of the services provided by the proposed facility to the community;
 - (4) The necessity of a waterfront location to the facility, where applicable;
 - (5) The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
 - (6) The compatibility of the proposed use with existing and anticipated development;
 - (7) The relationship of the proposed use to the comprehensive plan and floodplain management regulations for that area;
 - (8) The safety of access to the property in times of flood for ordinary and emergency vehicles;
 - (9) The expected height, velocity, duration, rate of rise, and sediment transport of the floodwaters at the site; and
 - (10) The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges.

- (c) **Waivers.** The natural features review committee shall use the following criteria in granting a waiver to the requirements of this article:
- (1) Waivers shall only be issued when there is:
 - a. A showing of good and sufficient cause;
 - b. A determination that failure to grant the waiver would result in a practical difficulty; and
 - c. A determination that the granting of a waiver will not result in increased flood heights, additional threats to public safety, extraordinary public expense, or creation of nuisances, will not cause fraud, or victimization of the public, and will not conflict with existing laws or ordinances.
 - (2) Waivers shall only be issued upon a determination that the waiver is the minimum necessary, considering the flood hazard, to afford relief.
 - (3) No waiver may be granted for a residential use within a floodway, subject to section 21.14 or 21.16(a) of this article.
 - (4) Any waiver granted in a floodway subject to section 21.14 or 21.16(a) of this article will require a permit from the IDNR.
 - (5) Waivers or exceptions to the flood hazard reduction of section 21.12 may be granted only when a new structure is to be located on a lot of one-half acre or less in size, contiguous to and surrounded by lots with existing structures constructed below the FPG.
 - (6) Waivers may be granted for the reconstruction or restoration of any structure individually listed on the National Register of Historic Places or the Indiana State Register of Historic Sites and Structures. Waivers may be issued for the repair or rehabilitation of “historic structures” upon a determination that the proposed repair or rehabilitation will not preclude the structure’s continued designation as an “historic structure” and the waiver is the minimum necessary to preserve the historic character and design of the structure.
- (d) **Flood Elevation.** Any applicant to whom a waiver is granted shall be given written notice specifying the difference between the base flood elevation and the elevation to which the lowest floor is to be built and stating that the cost of the flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.
- (1) Any applicant to whom a waiver is granted shall be given written notice over the signature of a enforcement official that:
 - a. The issuance of a waiver to construct a structure below the base flood elevation will result in increased premium rates for flood insurance up to amounts as high as \$25 for \$100 of insurance coverage; and
 - b. Such construction below the base flood level increases risks to life and property. A copy of the notice shall be recorded by the enforcement official in the Office of the County Recorder and shall be recorded in a manner so that it appears in the chain of title of the affected parcel of land.
 - (2) The enforcement official will maintain a record of all waiver actions, including justification for their issuance, and report such waivers issued in the community’s biennial report submissions to the FEMA.
- (e) **Special Conditions.** The natural features review committee may conditionally approve permits or waivers for development activities in floodplains. Examples of the types of conditions that may be attached to permits or waivers include, but are not limited to:

- (1) Design measures to reduce project impacts;
- (2) Relocation of the proposed activity to reduce project impacts;
- (3) Flood and erosion reduction measures to prevent hazard losses to activities or natural resources on other lands;
- (4) Compensatory mitigation measures to offset losses to riparian area acreage, functions, and values;
- (5) Inclusion in the deed for the property a warning that the property contains a riparian area and that any activities in the riparian areas are subject to the riparian, wetland, floodplain and other regulatory requirements;
- (6) Setbacks from the river, stream, or other water body of a size appropriate for the proposed activity and the particular riparian area;
- (7) Deed restrictions, covenants, or execution of conservation easements regarding the future use of lands including but not limited to preservation of undeveloped areas and restrictions on vegetation removal;
- (8) Erosion control and storm water management measures;
- (9) The clustering of structures or development;

Section 21.21 Enforcement and Penalties

In addition to the enforcement and penalties provided for in article 26, the enforcement official shall have the power to order the restoration of any riparian area impacted in violation of this article. If the responsible person or agent does not complete such restoration within a reasonable time following the order, the authorized local government shall have the authority to restore the affected wetlands to the prior condition and the person or agent responsible for the violation shall be held liable to the city or county for the cost of restoration.

Section 21.22 Warning; Disclaimer of Liability

The degree of flood protection required by this article is considered reasonable for regulatory purposes and is based on available information derived from engineering and scientific methods of study. Larger floods can and will occur on rare occasions. Therefore, this article does not create any liability on the part of La Porte County, the city of La Porte, Michigan City, the IDNR, or the State of Indiana, for any flood damage that results from reliance on this article or any administrative decision made lawfully thereunder.