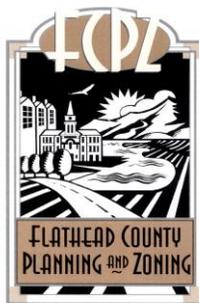


# FLATHEAD COUNTY

## FLOODPLAIN AND FLOODWAY MANAGEMENT REGULATIONS

Prepared by:



Flathead County Planning & Zoning Office  
Earl Bennett Building  
1035 First Avenue West  
Kalispell, MT 59901  
406.751.8200

# FLATHEAD COUNTY

## FLOODPLAIN AND FLOODWAY MANAGEMENT REGULATIONS

BOARD OF COUNTY COMMISSIONERS

FLATHEAD COUNTY, MONTANA

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### **ADMINISTERED BY:**

FLATHEAD COUNTY PLANNING & ZONING OFFICE  
Earl Bennett Building  
1035 1<sup>st</sup> Avenue West  
Kalispell, Montana 59901  
(406) 751-8200

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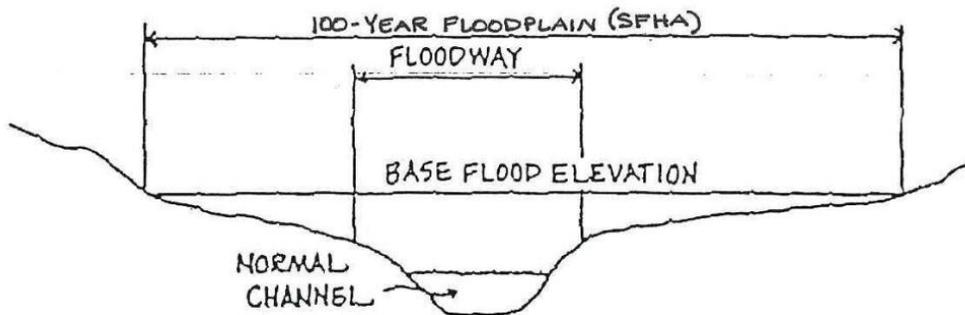
# Chapter 1

## General Provisions

### 1.01 Introduction

These Regulations shall be known and cited as the Flathead County Floodplain and Floodway Management Regulations (Regulations) and are made in accordance with exercising the authority of the laws of the State of Montana.

- A. The Regulated Flood Hazard Area is the area adjoining the watercourse or drainway that would be covered by the floodwater of a flood of 100-year frequency, except for sheetflood areas that receive less than 1 foot of water per occurrence and are considered “zone B” or a “shaded X zone” by the Federal Emergency Management Agency (FEMA);
- B. The Floodway is the channel of a watercourse or drainway and those portions of the Regulated Flood Hazard Area adjoining the channel that are reasonably required to carry and discharge the floodwater of any watercourse or drainway;
- C. The Base Flood Elevation (BFE) is the elevation above sea level of the base flood in relation to the North American Vertical Datum of 1988 (NAVD 88) unless otherwise specified in the flood hazard study. Previous Flood Insurance Rate Maps (FIRMs) may have been published in the National Geodetic Vertical Datum of 1929 (NGVD 29);
- D. Other definitions are found in Chapter 8 Definitions of these Regulations.



### 1.02 Intent

These Regulations comply with the Montana Floodplain and Floodway Management Act (Title 76, Chapter 5, MCA) and meet minimum floodplain development requirements for continued community participation in the National Flood Insurance Program and Community Rating System. It is public policy of Flathead County to efficiently manage development in the Regulated Flood Hazard Area in order to protect long term public health, safety and general welfare. These Regulations have been established with the following purposes intended to:

- A. Guide development of the Regulated Flood Hazard Area by:

1. Recognizing the right and need of watercourses to periodically carry more than the normal flow of water;
  2. Participating in coordinated efforts of federal, state and local management activities for Regulated Flood Hazard Area;
  3. Ensuring the regulations and minimum standards adopted, insofar as possible, balance the greatest public good with the least private injury.
- B. Regulate or prohibit uses that are dangerous to health, safety, and property in times of flood, or cause increased flood heights and velocities;
- C. Require that uses vulnerable to floods, including public facilities, be provided with flood protection at the time of initial construction;
- D. Identify lands unsuitable for certain development purposes because of flood hazards;
- E. Minimize the need for rescue and relief efforts associated with flooding undertaken at the expense of the general public;
- F. Ensure that potential buyers are notified that property is within a Regulated Flood Hazard Area and subject to the provisions of these Regulations;
- G. Ensure that those who occupy Regulated Flood Hazard Area assume responsibility for their action(s).

### **1.03 Statutory Authority**

Authority to adopt floodplain management regulations appears in Title 76, Chapter 5, Part 1, MCA. Identification of the Regulated Flood Hazard Area is based on the most current approved Flathead County, Montana Flood Insurance Study, recorded with the Flathead County Clerk and Recorder. The study includes both the Flood Insurance Study report (FIS) and official Flood Insurance Rate Maps (FIRMs) which are on file in the office of the Floodplain Administrator.

### **1.04 Jurisdictional Area**

These Regulations apply to the Regulated Flood Hazard Area within the jurisdiction of Flathead County, Montana, which are shown on the most recent Flathead County Flood Insurance Study or flood studies adopted by the Flathead County Board of Commissioners. See Appendix A for a list of the currently effective FIS report and FIRM panels with accompanying effective dates.

### **1.05 Rules for Interpretation of Floodplain District Boundaries**

Boundaries of the Regulated Flood Hazard Area shall be determined by scaling distances on the FIRM and using the Regulated Flood Hazard Area data table contained in the

Flood Insurance Study. The maps may be used as a guide for determining the Regulated Flood Hazard Area boundary, but the exact location of the Regulated Flood Hazard Area boundary shall be determined where the BFE intersects the natural ground.

- A. For the A Zone and AO Zone as depicted on a FIRM, where conflict exists between a mapped Regulated Flood Hazard Area boundary and actual field conditions, the Floodplain Administrator may interpret the location of the Regulated Flood Hazard Area boundary based on field conditions or available historical flood information:
  - 1. The Floodplain Administrator may use historical flood elevations to determine suitable fill or flood-proofing elevations;
  - 2. If historical flood evidence is not available, the Floodplain Administrator may determine, from a field review at the proposed development site, an appropriate fill or flood-proofing elevation to use in applying these Regulations;
  - 3. In the absence of depth or elevation information, a minimum two-foot depth shall be used.
- B. Where a land elevation survey provides more detailed elevation information than the FIRM and indicates that the land/structure may be out of the Regulated Flood Hazard Area, the homeowner/landowner shall submit a Letter of Map Change to the Federal Emergency Management Agency (FEMA);

#### **1.06 Abrogation and Greater Responsibility**

It is not intended by these Regulations to repeal, abrogate or impair any existing easements, covenants, deed restrictions or underlying zoning. Where these Regulations impose greater restrictions, the provisions of these Regulations shall prevail.

#### **1.07 Regulation Interpretation**

The interpretation and application of the provisions of these Regulations shall be considered minimum requirements and not deemed a limitation or repeal of any other powers granted by State statute.

#### **1.08 Warning and Disclaimer of Liability**

The degree of flood protection required by these Regulations is considered reasonable for regulatory purposes and based on scientific and engineering considerations. On rare occasions greater floods can and will occur and flood heights may be increased by man-made or natural causes.

- A. These Regulations do not imply that areas outside the delineated Regulated Flood Hazard Area boundaries or permitted land uses will always be totally free from flooding or flood damages;

- B. These Regulations shall not create a liability on the part of, or a cause of action against Flathead County, Montana or any officer or employee thereof for flood damages that may result from reliance upon these Regulations.

### **1.09 Severability**

If any section, clause, provision or portion of these regulations is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of these regulations shall not be affected thereby.

### **1.10 Disclosure Provision**

All owners of property in an identified Regulated Flood Hazard Area as indicated on the FIRM shall notify potential buyers or their agents that such property is subject to the provisions of these Regulations.

### **1.11 Floodplain Variances**

A variance from the minimum development standards of these regulations may be allowed. An approved variance would permit construction in a manner otherwise as required or prohibited by these regulations.

#### **A. Variance Application Requirements**

1. A completed floodplain development permit application and required supporting materials must be submitted.
2. Additionally, a completed Variance application specific to the variance request including facts and information addressing the criteria in this section must be submitted; and
3. If the floodplain development permit application and variance application is deemed not correct and complete, the Floodplain Administrator shall notify the applicant of deficiencies within a reasonable time not to exceed 30 days. Under no circumstances should it be assumed that the variance is automatically granted.

#### **B. Notice Requirements for Floodplain Variance Application**

1. Public notice of the floodplain permit and variance application shall be given pursuant to Section 3.07.

#### **C. Evaluation of Variance Application**

1. A variance shall only be issued upon a determination that the variance is the minimum allowance necessary, considering the flood hazard, to afford relief from these regulations and provided all of the findings are met:
  - a. There is a good and sufficient cause;
  - b. Failure to grant the variance would result in exceptional hardship to the applicant;
  - c. There are no basements nor residential dwelling that has the lowest floor elevation below the Base Flood Elevation;

- d. Crawl spaces are no more than two (2) feet below the exterior lowest adjacent grade and must have an inside dimension from interior ground to the bottom of the living floor of less than five (5) feet. The crawl spaces must meet the dry flood proofing requirements in Section 5.03(M)(3);
  - e. Granting of a variance will not result in increased flood heights to existing insurable buildings, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with other existing local laws or ordinances;
  - f. The proposed use is adequately flood proofed;
  - g. The variance is the minimum necessary, considering the flood hazard, to afford relief;
  - h. Reasonable alternative locations are not available;
  - i. There is no danger to life and property by water that may be backed up or diverted by the obstruction or use;
  - j. There is no danger that the obstruction or use will be swept downstream to the injury of others;
  - k. Incorporates measures in the construction or alteration of the obstruction or use that lessens the danger;
  - l. The permanence of the obstruction or use;
  - m. There is no adverse affect to anticipated development in the foreseeable future of the area that may be affected by the obstruction or use;
  - n. There is no adverse affect to existing properties or structures;
  - o. Any increase to the Base Flood Elevation in a Floodway has been approved by FEMA for flood insurance purposes and any increase to the Base Flood Elevation in the Floodway or Flood Fringe of more than 0.5 feet is an alteration of the Regulated Flood Hazard Area has been duly amended pursuant to Section 1.13;
  - p. That the Montana Department of Natural Resources and Conservation (DNRC) has considered and provided comments, based on technical review.
2. Special considerations for variance approval:
- a. If the new construction or substantial improvements on a lot of one-half acres or less is contiguous to and surrounded by lots of existing structures constructed below the Base Flood Elevation, a variance may be approved. However, as lot sizes increase beyond one-half acre additional technical justification may be required;

- b. Historic Structures – variances 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 a historic structure and the variance is the minimum relief necessary to preserve the historic character and design of the structure.

D. Decision

- 1. The Board of Adjustment shall:
  - a. Evaluate the application using the criteria and findings in this section, the application requirements in Section 3.04, and the floodplain permit considerations in Section 3.03;
  - b. Hear, make findings, and approve, conditionally approve, or deny a variance within 60 days of a complete application;
  - c. Attach conditions to the granting of variance including a project completion date and inspections during and after construction;
  - d. Notify the applicant that the issuance of a variance to construct a structure below the Base Flood level may result in increase premium rates for flood insurance and that flood insurance premiums are determined by actuarial risk and will not be modified by the granting of a variance;
- 2. The Floodplain Administrator shall maintain records of the variance notification and actions, including justification for their issuance, and forward copies of all variance actions to the DNRC and FEMA.

**1.12 Floodplain Development Permit Fees**

A non-refundable processing fee as adopted by the Board of Commissioners shall be submitted with each floodplain development permit application.

**1.13 Compliance**

No structure or land use shall be located, developed, extended, converted or structurally altered without full compliance with the provisions of these Regulations and other applicable regulations.

- A. Any use, arrangement or construction not in compliance as authorized by permit, shall be deemed a violation of these Regulations;
- B. An applicant is required to submit certification by a registered professional engineer, architect, land surveyor, or other qualified person designated by the Floodplain Administrator that finished fill and lowest building floor elevations, flood-proofing, hydraulic design, or other flood protection measures were accomplished in compliance with the provisions of the Regulations.

### **1.14 FIRM Revisions**

The Regulated Flood Hazard Area is based on base flood elevations or approximate elevations. These regulations allow for rises in the base flood elevation only with FEMA and DNRC approval. It is the applicant's responsibility to obtain FEMA and DNRC's approval for all changes to the Regulated Flood Hazard Area as shown on the FIRM.

### **1.15 Burden of Proof**

The burden of proof for satisfying the requirements of these regulations shall rest with the applicant and not Flathead County.

### **1.16 Authority To Investigate**

Flathead County may make reasonable entry upon any lands and waters in the state for the purpose of making an investigation, survey, removal, or repair if there is an active floodplain permit application. Unless written consent is obtained, however, Flathead County shall provide written notice of its entry to the owner, owner's agent, lessee, or lessee's agent whose lands will be entered at least 3 days in advance. If none of these persons can be found, Flathead County shall affix a copy of the notice to one or more conspicuous places on the property. An investigation of a natural or artificial obstruction or nonconforming use shall be made by Flathead County either on its own initiative, on the written request of adjacent owners, or on the written request of the Board of Commissioners (76-5-105, MCA).

### **1.17 Violations and Penalties**

Any person who violates these regulations shall be guilty of a misdemeanor and shall be upon conviction thereof be fined not more than \$100 or be imprisoned in the county jail for not more than 10 days or be both so fined and imprisoned. Each day's continuance of a violation shall be deemed a separate and distinct offense (76-5-110, MCA).

### **1.18 Violation Notice**

The Floodplain Administrator shall bring any violation of these regulations to the attention of the Flathead County Commissioners, the Flathead County Attorney and the Montana Department of Natural Resources and Conservation.

### **1.19 Disaster Recovery**

Upon completion of structure condition survey within the Regulated Flood Hazard Area, the Floodplain Administrator shall notify owners that a permit may be necessary before repair or reconstruction commences on structures that:

1. Have sustained 30% or more in flood damages;
2. Have been swept away;
3. Have one or more collapsed or missing walls;
4. Cannot be reoccupied without major structural work; or
5. Have sustained more than two feet of water over the first floor.

Structures that have suffered substantial damage or will undergo substantial improvements require a floodplain development permit application and must be upgraded to meet the minimum building standards herein during repair or reconstruction.

The Floodplain Administrator shall coordinate assistance and provide information to structure owners concerning Hazard Mitigation and Recovery measures with Federal Emergency Management Agency (FEMA), Montana Department of Natural Resources and Conservation (DNRC), and other state, local, and private emergency service organizations.

**Chapter 2**  
**Floodplain Administrator**

**2.01 Flathead County Floodplain Administrator**

The Flathead County Floodplain Administrator shall be the Planning Director.

**2.02 Duties and Responsibilities of the Floodplain Administrator**

Duties and responsibilities of the Floodplain Administrator shall include, but not be limited to, the following:

- A. Administration, interpretation, and enforcement of these floodplain regulations;
- B. Assure the flood carrying capacity within the altered or relocated portion of a watercourse is maintained;
- C. Assure all necessary permits have been received from governmental agencies from which approval is required by federal, state law and local codes, including 310 permits from the Flathead County Conservation District, 404 permits from the U.S. Army Corps of Engineers, 318 permits from the Montana Department of Environmental Quality, and septic permits from Flathead County Department of Environmental Health prior to issuing a floodplain development permit;
- D. Review floodplain permit applications to ensure the proposed building site project, including the placement of manufactured homes, will be reasonably safe from flooding;
- E. Grant or deny floodplain permits based on whether the proposed establishment, alteration, or substantial improvement of an artificial obstruction meets the requirements of these Regulations;
- F. Adopt administrative procedures to efficiently administer the provision of these Regulations;
- G. Ensure the proposed use complies with existing zoning designations;
- H. Maintain files and records necessary to document nonconforming uses, BFE, flood-proofing and lowest floor elevation certifications, fee receipts, the issuance of permits and variances, agenda, minutes, records of public meetings, and any other matters related to floodplain management in Flathead County.

## **Chapter 3**

### **Floodplain Development Permits**

#### **3.01 Pre-existing Structures and Uses in the Regulated Flood Hazard Area**

A structure or use that existed in the Regulated Flood Hazard Area prior to the adoption of Flathead County Floodway and Floodplain Regulations is considered pre-existing and may continue in the manner and to the extent that it existed prior to the adoption of the floodplain regulations. Any change in structure or use shall require a floodplain development permit in accordance with these Regulations.

#### **3.02 General Provisions**

Activities or uses that require the issuance of a permit, including the expansion or alteration of such uses, shall not be initiated, established or undertaken until a permit has been issued by the Floodplain Administrator.

- A. The Floodplain Administrator shall review and evaluate the application and shall approve, approve with conditions, or deny the application within 60 days of receipt of a correct and complete application (MCA-76-5-405(1) & (2));
- B. A floodplain development permit will not be considered complete until all information required by the Floodplain Administrator has been submitted and deemed satisfactory and all local, State and Federal permits are included with the floodplain development permit application. It is the responsibility of the applicant to determine that all other necessary permits have been obtained;
- C. The Floodplain Administrator may approve artificial obstructions in the Regulated Flood Hazard Area which increases the water surface elevation of the base flood by more than one half (1/2) foot provided that FEMA has approved or conditionally approved a revision to the FIRM which reflects the modified base flood elevations caused by the proposed encroachment;
- D. A permit issued under the authority of these regulations is valid for a period of twelve (12) months from the date of issuance:
  - i. All construction shall be completed within the twelve (12) month period;
  - ii. The Floodplain Administrator, at his or her discretion, may grant one twelve (12) month extension.

#### **3.03 Floodplain Permit Considerations**

Floodplain development permits shall be granted or denied by the Floodplain Administrator on the basis of whether the proposed establishment, alteration, or substantial improvement of an artificial obstruction meets the requirements of these regulations. The Floodplain Administrator shall also consider all of the following factors for every floodplain development permit application:

- A. The danger to life and property by water that may be backed up or diverted by the obstruction or use;
- B. The danger that the obstruction or use will be swept downstream to the injury of others;
- C. The availability of alternate locations;
- D. The construction or alteration of the obstruction or use in such a manner as to lessen the danger;
- E. The permanence of the obstruction or use;
- F. The anticipated development in the foreseeable future of the area that may be affected by the obstruction or use;
- G. Proposed water supply and sanitation systems and the ability of these systems to prevent disease, contamination and unsanitary conditions;
- H. Susceptibility of the proposed facility and its contents to flood damage and the effects of such damage on the individual owner;
- I. Flood-carrying capacity within the altered or relocated portion of any stream;
- J. Importance of the services provided by the facility to the community;
- K. Conformance of the proposed use with the zoning regulations for the area;
- L. Safety of access to property in times of flooding for ordinary and emergency services;
- M. Other factors in harmony with the purposes of these Regulations, the Montana Floodplain and Floodway Management Act and the National Flood Insurance Program.

### **3.04 Floodplain Development Permit Application Requirements**

Floodplain development permit applicants shall be required to furnish the information below for determining the suitability of the particular site for the proposed use:

- A. Location map using the reference FIRM showing the proposed activity in relation to the Regulated Flood Hazard Area, Flood Fringe, or Floodway;
- B. A drawing to scale (including dimensions) showing the:
  - 1. Nature, location, and elevation of the lot;

2. Existing structure locations;
  3. Fill, storage, or materials site;
  4. Flood-proofing measures;
  5. Adjusted mean sea level elevations as determined by NAVD 88 of the lowest living area floor of any proposed structures;
  6. Location of the channel;
  7. Plan view of the proposed development including external dimensions of structures, street or road finished grade elevations, well locations, individual sewage treatment and disposal sites, and site plan and/or construction plans.
- C. Specifications for flood-proofing, filling, excavating, grading, rip rapping, storage of materials, and location of utilities, including excavation and fill quantity estimates;
- D. Professional engineer's or registered architect's design calculations and certification that the proposed activity has been designed to be in compliance with these Regulations;
- E. Certification of flood-proofing or elevation on a standard form available from the Floodplain Administrator;

### **3.05 Additional Information**

Prior to issuing a floodplain permit the Floodplain Administrator may require additional information necessary to determine whether the proposed activity meets the requirements of these Regulations. Additional information may include, but not limited to, hydraulic calculations assessing the impact on the BFE or velocities.

### **3.06 Regulated Flood Hazard Areas with No Delineated Floodway**

A development or artificial obstruction proposed in the Regulated Flood Hazard Area, where water surface elevations are available but no Floodway is delineated, may not significantly increase flood velocities or depths or generally alter patterns of flood flow.

- A. Where the proposed development would be located near the bank of a stream in an area which would likely be included in the Floodway, the Floodplain Administrator may require a permit applicant to furnish additional hydraulic data before acting on a permit application. The data may include, but are not limited to, any of the following:
1. A hydraulic study documenting probable effect on upstream or

downstream, and adjacent property owners caused by the proposed development;

2. The calculated increase in the base flood water surface profile caused by the proposed development.
- B. The Floodplain Administrator may approve a floodplain development permit for new construction, substantial improvements, or other artificial obstructions (including fill) within the Regulated Flood Hazard Area, if it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the BFE more than one-half (0.5) foot at any point, or significantly increase the base flood velocity.

### **3.07 Public Notice**

Upon receipt of a complete application for a permit or a variance request, the Floodplain Administrator shall prepare a notice containing the facts pertinent to the application and have the notice published at least once in a newspaper of general circulation in the area. Notice shall also be served by first-class mail upon adjacent property owners and DNRC. The notice shall provide a reasonable period of time, not less than 15 days, for interested parties to submit comments on the proposed activity.

- A. The Floodplain Administrator shall send copies of all associated permits to DNRC;
- B. In riverine situations, notification by the Floodplain Administrator shall be made to adjacent cities, DNRC, and FEMA prior to any alteration or relocation of a stream. The flood-carrying capacity within the altered or relocated portion of any stream shall be maintained. Erosion control measures shall be incorporated to ensure stability of altered channels and stream banks.

### **3.08 Post Floodplain Permit Inspection**

To determine that the permit specifications and conditions have been completed, applicants are required to furnish all of the following prior to the time of the on-site conformance inspection:

- A. Certification by a registered professional engineer or licensed land surveyor of the adjusted mean sea level elevations as determined by NAVD 88 of the lowest living area floor (including basement) of all new, altered, or substantially improved buildings;
- B. Certification by a structural engineer or licensed architect shall be required, if flood-proofing techniques were used for buildings, stating the adjusted mean sea level elevations as determined by NAVD 88 to which the flood proofing was accomplished;

- C. Certification by a structural engineer or licensed architect shall also be required for artificial obstructions other than buildings, the activity was accomplished in accordance with these Regulations and the design plans submitted with the application for the permit activity. This certification may be waived by the Floodplain Administrator if it can be clearly ascertained by a site inspection that the activity was accomplished in accordance with these Regulations;
- D. Certification of flood-proofing or elevation shall be provided on a standard form available from the Floodplain Administrator.

### **3.09 Emergency Approval**

- A. Emergency repair and replacement of severely damaged public transportation facilities, public water and sewer facilities, and flood control work may be authorized. Floodplain development permit requirements may be waived if:
  - 1. Upon notification and prior to the emergency repair and/or replacement, the Floodplain Administrator determines that an emergency condition exists warranting immediate action; and
  - 2. The Floodplain Administrator agrees upon the nature and type of proposed emergency repair and/or replacement.
- B. Authorization to undertake emergency repair and replacement work may be given verbally if the Floodplain Administrator feels that such a written authorization would unduly delay the emergency work. Such verbal authorization must be followed by a written authorization stating the emergency condition, the type of emergency work agreed upon, and stating that a verbal authorization had been previously given;

### **3.10 Appeals**

The Board of Adjustment shall hear and render judgment on an appeal when it is alleged there is an error in any requirement, decision, or determination made by the Floodplain Administrator in the enforcement or administration of this ordinance.

- A. Appeal Requirements:
  - 1. An appeal shall include the basis of the appeal and supporting information including specific findings and conclusions of the Floodplain Administrator's decision being appealed;
  - 2. An appeal must be submitted by an applicant or anyone who may be aggrieved by the Floodplain Administrator's decision or order;
  - 3. Appeals must be received within 30 days of the date of the decision or order of the Floodplain Administrator;

4. Additional information specific to the appeal request may be requested of the applicant by the Floodplain Administrator while preparing the appeal for the Board of Adjustment review; and
  5. Public notice shall be published in a newspaper of general circulation in the community at least 15 days prior to the Board hearing.
- B. The Floodplain Administrator shall maintain a record of all actions involving an appeal and shall provide reports to FEMA upon request;
- C. Any person or persons aggrieved by the decision of the Board of Adjustment may appeal such decision in the courts of competent jurisdiction.

## **Chapter 4**

### **Floodway Development Uses and Standards**

#### **4.01 Floodway Uses Prohibited**

The following artificial obstructions and uses are prohibited within the Floodway:

- A. New construction of any residential, commercial, public, or industrial structure or an expansion of a pre-existing structure;
- B. Encroachments, including fill, new construction, alterations, substantial improvements, and other development that would result in erosion of the embankment, obstruction of the natural flow of waters, or increase in flood levels;
- C. The construction or permanent storage of an object subject to flotation or movement during flooding;
- D. Solid and hazardous waste disposal, sewage treatment, and sewage disposal systems;
- E. Storage of toxic, flammable, hazardous, or explosive materials;
- F. Manufactured homes;
- G. Cemeteries, mausoleums, or any other places of burial of human remains;
- H. Large scale clearing of the riparian vegetation.

#### **4.02 Floodway Uses Not Requiring Floodplain Development Permit**

The following uses shall be allowed without a floodplain development permit anywhere within the Floodway, provided that such uses conform to the provisions of these Regulations, are not prohibited by any other ordinance, resolution or statute, and do not require fill, excavation, permanent storage of materials, or equipment or structures other than portable structures.

- A. Agricultural uses, such as tilling, farming, irrigation, harvesting, grazing, that do not require fill or excavation;
- B. Agricultural irrigation, livestock supply wells, and water conveyance systems, provided they are located at least 500 feet from domestic water supply wells that do not require fill or excavation;
- C. Parking areas, or emergency landing strips that do not require fill or excavation;
- D. Private and public recreational uses that do not have permanent structures (e.g. floating docks) that do not require fill or excavation;

- E. Forestry, including processing of forest products with portable equipment;
- F. Lawns, gardens, and play areas that do not require fill or excavation;
- G. Fences, except permanent fences crossing channels;
- H. Recreational vehicles provided they meet all of the following requirements:
  - 1. On the site for fewer than 180 consecutive days;
  - 2. Fully licensed and ready for highway use. A recreational vehicle is ready for highway use if it is on its wheel or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.

#### **4.03 Floodway Uses Requiring a Floodplain Development Permit**

The following artificial obstructions and uses may be permitted in the Floodway subject to the issuance of a floodplain development permit by the Floodplain Administrator:

- A. Excavation of material from pits, pools, or ponds provided that all of the following are met:
  - 1. A buffer strip of undisturbed land is left between the edge of the channel and the edge of the excavation. This buffer strip shall be at least a sufficient width to prevent flood flows from channeling into the excavation or accelerate channel bank erosion;
  - 2. The excavation meets all applicable laws and regulations of other local and state agencies;
  - 3. Excavated material is disposed of or stockpiled outside the Regulated Flood Hazard Area.
- B. Railroad, highway, road, and driveway stream crossings provided that all of the following are met:
  - 1. The crossings are designed to offer minimal obstruction to flood flow;
  - 2. The bottom of bridge spans has a freeboard of at least two (2) feet above the BFE;
  - 3. Normal overflow channels are preserved to allow passage of sediments to prevent aggradations;
  - 4. Mid stream supports for bridges have footings buried below the maximum scour depth;

5. Stream crossings do not increase the BFE more than one-half foot nor cause a significant increase in flood velocities;
  6. Certification signed by a registered professional engineer demonstrating the above provisions have been met.
- C. Fill for highway, road, driveway, and railroad embankments not associated with stream crossings, provided that all of the following are met:
1. Reasonable alternative transportation routes outside the designated Floodway are not available;
  2. Such Floodway encroachment is located as far from the stream channel as possible;
  3. Impacts to property owners or the natural stream function have been mitigated;
  4. The encroachment does not result in a cumulative increase exceeding one-half foot in the BFE, after allowable encroachments into the Floodway;
  5. Certification signed by a registered professional engineer demonstrating the above provisions have been met.
- D. Buried or suspended utility transmission lines, provided that:
1. Suspended utility transmission lines are designed so the lowest point of the suspended line is at least six (6) feet higher than the BFE;
  2. Towers and other appurtenant structures are designed and placed to withstand and minimally obstruct flood flows;
  3. When technically feasible, the crossing does not disturb the bed and banks of the stream and alternatives such as alternative routes, directional drilling, and aerial crossing are considered;
  4. Utility transmission lines carrying toxic or flammable materials are buried to a depth at least twice the calculated maximum depth of scour for a base flood. The maximum depth of scour shall be determined by hydraulic engineering methods acceptable to the Floodplain Administrator;
  5. Buried utility transmission lines, including electric and telephone, are backfilled to natural grade, compacted, and revegetated.

- E. Storage of materials and equipment provided that all of the following are met:
1. No storage of flammable, toxic, hazardous, or explosive materials shall be permitted;
  2. The material or equipment is not subject to major damage by flooding and is properly anchored to prevent flotation or downstream movement;
  3. The material or equipment is readily movable within the limited time available after flood warning.
- F. Domestic water supply wells provided that all of the following are met:
1. Assure drainage away from the wellhead;
  2. No other structures are required (e.g. a well house);
  3. Well casings are water tight to a distance of at least 25 feet below the ground surface;
  4. Water supply and electrical lines have a watertight seal where the lines enter the casing;
  5. All pumps, electrical lines and equipment are either submersible or adequately flood-proofed;
  6. Check valves are installed on main water lines at wells and all building entry location;
- G. Buried and sealed vaults for sewage disposal in recreational areas provided they meet applicable laws and standards administered by the Montana Department of Environmental Quality.
- H. Public or private campgrounds provided:
1. There are no dwellings or permanent mobile homes;
  2. Access roads require only limited fill and do not obstruct or divert flood waters.
- I. Structures accessory to the uses permitted in this section such as permanent boat docks, marinas, sheds, picnic shelters, tables and toilets provided that all of the following are met:
1. Structures are not intended for human habitation;

2. Structures will have a low flood damage potential;
  3. Structures are located on ground higher than the surrounding ground and as far from the channel as possible;
  4. Flood-proofing standards of these Regulations are met;
  5. Structures are constructed and placed to offer a minimal obstruction to flood flows;
  6. Structures are anchored to prevent flotation.
- J. Agricultural structures without walls that will have low flood damage potential, and are located on higher ground as far from the channel as possible.
- K. Private and public recreational uses that do not have permanent structures or require excavation or fill. Examples include golf courses, driving ranges, archery ranges, picnic grounds, parks, wildlife management and natural areas, game farms, shooting preserves, hunting and fishing areas, bike and pedestrian trails, private and public boat-launching ramps, fish hatcheries, target ranges, and trap and skeet ranges;
- L. Levees and floodwalls, provided that the following are met:
1. The structures shall be designed and constructed to safely convey a base flood;
  2. The cumulative effect of the levee or floodwall combined with Regulated Flood Hazard Area encroachments will not increase the unobstructed BFE more than 0.5 feet;
  3. The Floodplain Administrator may establish either a lower or higher permissible increase in the BFE for individual levee projects only with concurrence from the DNRC and the FEMA based upon all of the following information and criteria:
    - a. The estimated cumulative effect of anticipated future permissible uses;
    - b. The type and amount of existing flood-prone development in the affected area;
    - c. The proposed levee or floodwall, except those to protect agricultural land, is constructed at least three (3) feet higher than the BFE.

- M. Bank stabilization projects, such as riprap, native revetments, weirs, if all of the following are met:
1. The riprap is designed to withstand a base flood;
  2. The riprap does not increase the BFE;
  3. The riprap will not increase erosion upstream, downstream, or adjacent to the riprap site;
- N. Channelization projects if they do not significantly increase the magnitude or velocity of the BFE in the proximity of the project;
- O. Dams if all of the following criteria are met:
1. They are designed and constructed in accordance with The Montana Dam Safety Act and applicable safety standards;
  2. They will not increase flood hazards downstream, either through operational procedures or improper hydrologic/hydraulic design.
- P. Structures for the establishment of a water diversion or change in place of diversion if all of the following criteria are met:
1. The proper permits or documentation have been obtained from DNRC for new surface water diversions and changes in place of diversion;
  2. The proposed diversion will not significantly increase the upstream BFE one-half (1/2 foot) or more or to the detriment of neighboring property;
  3. The proposed diversion is designed and constructed to minimize potential erosion from a base flood;
  4. Any permanent diversion structure crossing the full width of the stream channel is designed and constructed to safely withstand a base flood, and is not an obstruction to the passage of water craft or fish.
- Q. All other artificial obstructions, substantial improvements or use not specifically listed or prohibited by these Regulations.

**Chapter 5**  
**Flood Fringe Development Uses and Standards**

**5.01 Flood Fringe Uses Prohibited**

The following artificial obstructions and uses are prohibited within the Flood Fringe:

- A. Solid and hazardous waste disposal;
- B. Storage of highly toxic, flammable, hazardous or explosive materials. However, storage of petroleum products may be allowed by permit under Section 5.03(F);
- C. Cemeteries, mausoleums, or any other burial grounds; and
- D. Critical facilities, including buildings and associated facilities that provide essential community care and emergency operation functions such as schools, hospitals, and nursing home facilities, fire stations and police stations.

**5.02 Flood Fringe Uses Not Requiring a Floodplain Development Permit**

The following uses shall be allowed without a permit anywhere within the Flood Fringe, provided that such uses conform to the provisions of these Regulations, are not prohibited by any other ordinance, resolution or statute, and do not require fill, excavation, permanent storage of materials, or equipment or structures other than portable structures:

- A. Agricultural uses such as tilling, farming, irrigation, harvesting, grazing, etc that do not require fill or excavation;
- B. Accessory uses such as loading or parking areas, or emergency landing strips associated with industrial and commercial facilities that do not require fill or excavation;
- C. Private and public recreational uses that do not have permanent structures (e.g. floating docks) and do not require excavation or fill;
- D. Forestry, including processing of forest products with portable equipment;
- E. Residential uses such as lawns, gardens, parking areas and play areas, that do not require fill or excavation;
- F. Agricultural irrigation, livestock supply wells, and water conveyance systems, provided that they are located at least 500 feet from domestic water supply wells;
- G. Fences, except permanent fences crossing channels;
- H. Recreational vehicles provided they meet all of the following requirements:
  - 1. Be on the site for fewer than 180 consecutive days;

2. Be fully licensed and ready for highway use. A recreational vehicle is ready for highway use if it is on its wheel or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions;

### **5.03 Flood Fringe Uses Requiring a Floodplain Development Permit**

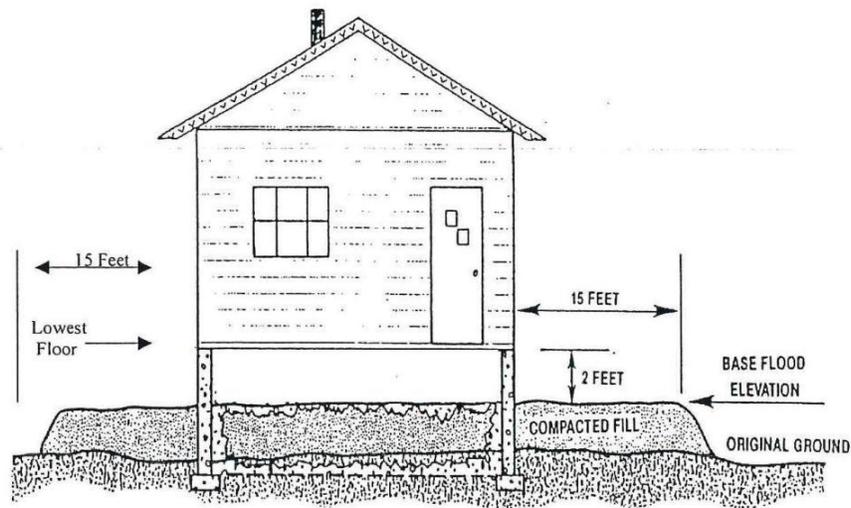
The following artificial obstructions and uses may be permitted in the Flood Fringe subject to the issuance of a floodplain development permit by the Floodplain Administrator:

- A. Fill material placed in the Flood Fringe provided that all of the following are met:
  1. Fill shall be stable, compacted, well graded, pervious, generally unaffected by water and frost;
  2. Fill shall be devoid of trash or similar foreign matter, devoid of tree stumps or other organic material, and appropriate for the purpose of supporting the intended use and/or permanent structure;
- B. Excavation of material from pits, pools, or ponds provided that all of the following are met:
  1. A buffer strip of undisturbed land is left between the edge of the channel and the edge of the excavation. This buffer strip shall be at least a sufficient width to prevent flood flows from channeling into the excavation or accelerate channel bank erosion;
  2. The excavation meets all applicable laws and regulations of other local and state agencies;
  3. Excavated material is disposed of or stockpiled outside the Regulated Flood Hazard Area.
- C. Railroad, highway, road and driveway stream crossings provided that all of the following are met:
  1. The crossings are designed to offer minimal obstruction to flood flow;
  2. The bottom of bridge spans has a freeboard of at least two (2) feet above the BFE;
  3. Normal overflow channels are preserved to allow passage of sediments to prevent aggradations;
  4. Mid stream supports for bridges have footings buried below the maximum scour depth;

5. Stream crossings do not increase the BFE more than one-half foot nor cause a significant increase in flood velocities;
  6. The applicant has submitted certification signed by a registered professional engineer demonstrating the above provisions have been met.
- D. Fill for highway, road, driveway, and railroad embankments not associated with stream crossings, provided that all of the following are met:
1. Reasonable alternative transportation routes are not available;
  2. Such encroachment is located as far from the stream channel as possible;
  3. Impacts to property owners or the natural stream function have been mitigated;
  4. The encroachment does not result in a cumulative increase exceeding one-half foot in the BFE, after allowable encroachments;
  5. The encroachment shall be designed to minimize increase in flood heights and located two feet above the BFE;
  6. The applicant has submitted certification signed by a registered professional engineer demonstrating the above provisions have been met.
- E. Utility transmission lines provided that:
1. Suspended utility transmission lines are designed so the lowest point of the suspended line is at least six (6) feet higher than the BFE;
  2. Towers and other appurtenant structures are designed and placed to withstand and minimally obstruct flood flows;
  3. When technically feasible, the crossing does not disturb the bed and banks of the stream and alternatives such as alternative routes, directional drilling, and aerial crossing are considered;
  4. Utility transmission lines carrying toxic or flammable materials are buried to a depth at least twice the calculated maximum depth of scour for a base flood. The maximum depth of scour shall be determined by hydraulic engineering methods acceptable to the Floodplain Administrator;
  5. Buried utility transmission lines, including electric and telephone, are backfilled to natural grade, compacted, and revegetated.

- F. Storage of materials and equipment provided that all of the following are met:
1. Petroleum products are stored on compacted fill at least two feet above the BFE and anchored to a permanent foundation to prevent downstream movement;
  2. The material or equipment is not subject to major damage by flooding and is properly anchored to prevent flotation or downstream movement;
  3. The material or equipment is readily movable within the limited time available after flood warning.
- G. Domestic water supply wells provided that all of the following are met:
1. Assure drainage away from the wellhead;
  2. All structures (e.g. a well house) shall be flood-proofed per these regulations;
  3. Well casings are water tight to a distance of at least 25 feet below the ground surface;
  4. Water supply and electrical lines have a watertight seal where the lines enter the casing;
  5. All pumps, electrical lines and equipment are either submersible or adequately flood-proofed;
  6. Check valves are installed on main water lines at wells and all building entry location;
- H. Buried and sealed vaults for sewage disposal in recreational areas provided they meet applicable laws and standards administered by the Montana Department of Environmental Quality.
- I. Public and private campgrounds or RV parks provided that all dwellings or permanent mobile homes meet the provisions of these regulations;
- J. Structures accessory to the uses permitted in this section such as permanent boat docks, marinas, sheds, picnic shelters, tables and toilets provided that all of the following are met:
1. Structures are not intended for human habitation;
  2. Structures will have a low flood damage potential;

3. Structures are located on ground higher than the surrounding ground and as far from the channel as possible;
  4. Flood-proofing standards of these Regulations are met;
  5. Structures are constructed and placed to offer a minimal obstruction to flood flows;
  6. Structures are anchored to prevent flotation.
- K. Agricultural structures that will have low flood damage potential, be located on higher ground, and as far from the channel as possible;
- L. New construction, alteration and substantial improvement of residential structures, including manufactured homes:
1. All structures shall be constructed or placed on fill, columns, or pilings such that the lowest floor elevation (including basement) is two feet or more above the BFE;
  2. Suitable fill shall be at an elevation no lower than the BFE and shall extend for at least fifteen feet, at that elevation, beyond the structure in all directions;
  3. Manufactured homes shall have the chassis securely anchored to a foundation system that will resist flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, over-the-top or frame ties to ground anchors. This requirement is in addition to applicable State and local anchoring requirements for resisting wind forces;
  4. When a manufactured home is altered or replaced because of substantial damage as a result of a flood, or replaced on an individual site, the lowest floor shall be elevated two (2) feet above the BFE. The home can be elevated on fill or raised on a permanent foundation of reinforced concrete, reinforced mortared block, reinforced piers, or other foundation elements of at least equivalent strength.



- M. New construction, alteration, and substantial improvement of commercial and industrial structures:
1. All structures are either constructed on fill, columns, or pilings so the lowest floor is elevated two (2) feet above the BFE or adequately flood-proofed to two (2) feet above the BFE. The flood-proofing must meet the requirements of these Regulations;
  2. Manufactured homes proposed for use as commercial or industrial structures shall be elevated and anchored, rather than flood-proofed. The lowest floor shall be elevated two (2) feet above the BFE. The home can be elevated on fill or raised on a permanent foundation of reinforced concrete, reinforced mortared block, reinforced piers, or other foundation elements of at least equivalent strength;
  3. Flood-proofing shall be certified by a registered professional engineer that the flood-proofing methods are adequate to withstand the flood depths, hydrodynamic and hydrostatic pressures, velocities, impact, buoyancy, and uplift forces associated with the base flood:
    - a. If the structure is designed to allow internal flooding of areas below the lowest floor, use of this space shall be limited to parking, loading areas, building access, and storage of equipment or materials not appreciably affected by flood waters;
    - b. The floors and walls shall be designed and constructed of materials resistant to flooding to an elevation no lower than two feet above the BFE. Walls shall be designed to automatically equalize hydrostatic forces by allowing for entry and exit of floodwaters.

Openings may be equipped with screens, louvers, valves, other coverings, or devices which permit the automatic entry and exit of floodwaters;

- c. Structures whose lowest floors are used for a purpose other than parking, loading, or storage of materials resistant to flooding shall be flood-proofed to an elevation no lower than two feet above the BFE. Flood-proofing shall include impermeable membranes or materials for floors and walls and watertight enclosures for all windows, doors, and other openings. These structures shall be designed to withstand the hydrostatic, hydrodynamic, and buoyancy effects of a base flood;
  - d. Flood-proofing of electrical, heating, and plumbing systems shall be accomplished in accordance with Chapter 7 of these Regulations.
4. Enclosed parking, access, or storage areas, below the BFE, shall be designed to automatically equalize hydrostatic flood forces on exterior walls. Designs for meeting this requirement shall be certified by a registered professional engineer.
- N. Private and public recreational uses that have permanent structures or require excavation or fill. Examples include golf courses, driving ranges, archery ranges, picnic grounds, parks, wildlife management and natural areas, game farms, shooting preserves, hunting and fishing areas, bike and pedestrian trails, private and public boat-launching ramps, fish hatcheries, target ranges, and trap and skeet ranges;
- O. Recreational vehicles placed more than 180 days OR not fully licensed and ready for highway use must meet the permit requirements and the elevation and anchoring requirements for manufactured homes in 5.03(L).
- P. Levees and floodwalls, provided that the following are met:
- 1. The structures shall be designed and constructed to safely convey a base flood;
  - 1. The cumulative effect of the levee or floodwall combined with Regulated Flood Hazard Area encroachments will not increase the unobstructed BFE more than 0.5 feet;
  - 2. The Floodplain Administrator may establish either a lower or higher permissible increase in the BFE for individual levee projects only with concurrence from the DNRC and the FEMA based upon all of the following information and criteria:

- a. The estimated cumulative effect of anticipated future permissible uses;
  - b. The type and amount of existing flood-prone development in the affected area;
  - c. The proposed levee or floodwall, except those to protect agricultural land, is constructed at least three (3) feet higher than the BFE.
- Q. Bank stabilization projects, such as riprap, native revetments, weirs, if all of the following are met:
- 1. The riprap is designed to withstand a base flood;
  - 2. The riprap does not increase the BFE;
  - 3. The riprap will not increase erosion upstream, downstream, or adjacent to the riprap site;
- R. Channelization projects if they do not significantly increase the magnitude or velocity of the BFE in the proximity of the project;
- S. Dams if all of the following criteria are met:
- 1. They are designed and constructed in accordance with The Montana Dam Safety Act and applicable safety standards;
  - 2. They will not increase flood hazards downstream, either through operational procedures or improper hydrologic/hydraulic design.
- T. Structures for the establishment of a water diversion or change in place of diversion if all of the following criteria are met:
- 1. The proper permits or documentation have been obtained from DNRC for new surface water diversions and changes in place of diversion;
  - 2. The proposed diversion will not significantly increase the upstream BFE one-half (1/2 foot) or more or to the detriment of neighboring property;
  - 3. The proposed diversion is designed and constructed to minimize potential erosion from a base flood;

4. Any permanent diversion structure crossing the full width of the stream channel is designed and constructed to safely withstand a base flood, and is not an obstruction to the passage of water craft or fish.
- U. All other artificial obstructions, substantial improvements or use not specifically listed or prohibited by these Regulations.

**Chapter 6**  
**Regulated Flood Hazard Areas within the Lake and Lakeshore Protection Zone**

**6.01 Joint Approval**

Projects regulated by the Flathead County Lake and Lakeshore Regulations that have been issued a lake and lakeshore construction permit may need to obtain a floodplain development permit for activities the Floodplain Administrator finds will have a significant impact on the Regulated Flood Hazard Area.

- A. Proposed floodplain development projects not requiring a floodplain development permit include the following:
1. Single residential pier docks;
  2. Single residential portable docks;
  3. Shore stations;
  4. Walkways;
  5. Buoys;
  6. Tie off piers;
  7. Small scale projects that do not require adding fill or dredging.

## **Chapter 7**

### **Flood Proofing**

#### **7.01 Certification**

The following flood-proofing requirements shall be applied to a proposed structure, as stipulated by the Floodplain Administrator in accordance with these Regulations and the methods used shall be certified by a registered professional engineer.

#### **7.02 Flood Proofing Conformance**

Permitted flood-proofing systems shall conform to all of the conditions listed below:

A. Electrical Systems:

1. All incoming power service equipment, including all metering equipment, control centers, transformers, distribution and lighting panels and all other stationary equipment shall be located at least two feet above the BFE;
2. Portable or movable electrical equipment may be placed below the BFE, if the equipment can be disconnected by a single submersible plug-and-socket assembly;
3. The main power service line shall have automatic or manually operated electrical disconnect equipment located at an accessible location outside of the Regulated Flood Hazard Area and above the BFE;
4. All electrical wiring systems installed at or below the BFE shall be suitable for continuous submergence and may not contain fibrous components.

B. Heating Systems:

1. Float operated automatic control valves shall be installed in gas furnace supply lines so that the fuel supply is automatically shut off when flood waters reach the floor level where the furnace is located;
2. Manually operated gate valves shall be installed in gas supply lines. The gate valves shall be operable from a location above the BFE;
3. Electric heating systems shall be installed in accordance with the provisions of these Regulations.

C. Plumbing Systems:

1. Sewer lines, except those to be buried and sealed in vaults, shall have check valves installed to prevent sewage backup into permitted structures;

2. All toilet stools, sinks, urinals and drains shall be located such that the lowest point of possible water entry is at least two feet above the BFE.

## **Chapter 8** **Definitions**

**100-YEAR FLOOD:** A flood having a one percent (1%) chance of being equaled or exceeded in any given year. A 100-year flood has nearly a 23 percent chance of occurring in a 25-year period. A 100-year flood is the same as a base flood.

**ACT:** Montana Floodplain and Floodway Management Act, 76-5-101 through 406, MCA.

**ALTERATION:** Any change or addition to an artificial obstruction that either increases its external dimensions or increases its potential flood hazard. Maintenance of an artificial obstruction is not an alteration.

**APPEAL:** A request for a review of the Floodplain Administrator's interpretation of any provisions of these regulations or a request for a variance.

**AREA OF SPECIAL FLOOD HAZARD:** The land in the floodplain within the community subject to inundation by a one percent (1%) or greater chance of flood in any given year, i.e., the 100-year floodplain.

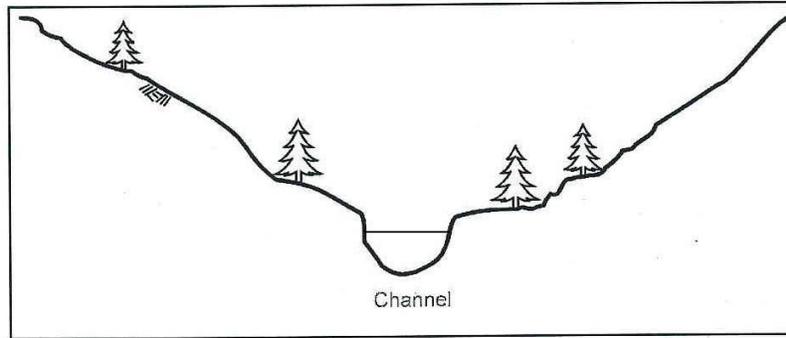
**ARTIFICIAL OBSTRUCTION:** Any obstruction which is not natural and includes any dam, diversion, wall, riprap, embankment, levee, dike, pile, abutment, projection, revetment, excavation, channel rectification, bridge, conduit, culvert, building, refuse, automobile body, fill or other analogous structure or matter in, along, across or projecting into any 100-year floodplain which may impede, retard or alter the pattern of flow of water, either in itself or by catching or collecting debris carried by the water, or that is placed where the natural flow of water would carry the same downstream to the damage or detriment of either life or property.

**BASE FLOOD:** A flood event having a one percent (1%) chance of being equaled or exceeded in any given year. A base flood is the same as a 100-year flood.

**BASE FLOOD ELEVATION:** Commonly referred to as BFE, the elevation above sea level of the base flood in relation to North American Vertical Datum of 1988 (NAVD 88) unless otherwise specified in the flood hazard study. Previous FIRMs may have been published in the National Geodetic Vertical Datum of 1929 (NGVD 29), and should be converted to NAVD 88 elevations.

**BASEMENT:** Any area of the building having its floor sub grade (below ground level) on all sides.

**CHANNEL:** The geographical area within either the natural or artificial banks of a watercourse or drain way.



**CHANNELIZATION PROJECT:** The excavation or construction of an artificial channel for the purpose of diverting the entire flow of a watercourse or drainway from its established course.

**CRAWL SPACE:** Any area below the ground level and below the lowest floor having an interior dimension of four (4) feet or less measured from the interior ground surface to the top of the stem wall.

**DEVELOPMENT:** Any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.

**DNRC:** Montana Department of Natural Resources and Conservation

**DWELLING:** A permanent building for human habitation, a place for living purposes.

**ELEVATED BUILDING:** A non-basement building which has its lowest elevated floor raised above ground level by foundation walls, shear walls, posts, piers, pilings, or columns.

**ENCLOSURE:** That portion of an elevated building below the lowest elevated floor that is either partially or fully shut-in by rigid walls.

**ENCROACHMENT:** Activities or construction within the floodplain including fill, new construction, substantial improvements, or other development.

**ENCROACHMENT ANALYSIS:** An analysis performed by an engineer to assess the impacts of the proposed artificial obstruction or nonconforming use to the 100-year floodplain, base flood elevation and velocity.

**EROSION:** The process of the gradual wearing away of land masses.

**ESTABLISH:** To construct, place, insert, or excavate.

**EXISTING CONSTRUCTION OR STRUCTURE:** Structures for which the “start of construction” commenced on or before the effective date of the Flathead County

Floodplain and Floodway Management Regulations and/or the Flathead County Flood Insurance Study. “Existing construction” may also be referred to as “existing structures.”

EXISTING MANUFACTURED HOME PARK OR SUBDIVISION: A manufactured home park or subdivision where the construction of facilities for servicing the manufactured home lots is completed before the effective date of the floodplain management regulations. This includes, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads.

EXPANSION TO AN EXISTING MANUFACTURED HOME PARK OR SUBDIVISION: The preparation of additional sites by the construction of facilities for servicing the lots on which the manufacturing homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

FEMA: The Federal Emergency Management Agency; the agency that manages compliance with the National Flood Insurance Program (NFIP) and provides flood hazards studies and maps.

FLOOD OR FLOODING: A general and temporary condition of partial or complete inundation of normally dry land areas from: 1) the overflow of inland or tidal waters; 2) the unusual and rapid accumulation or runoff of surface water from any source; 3) mudslides which are proximately caused by flooding and are akin to a river of liquid and flowing mud on the surfaces of normally dry land area, as when earth is carried by a current of water and deposited along the path of the current. The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated forces of nature, such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding.

FLOOD FRINGE: That portion of a designated floodplain outside the limits of a designated floodway.

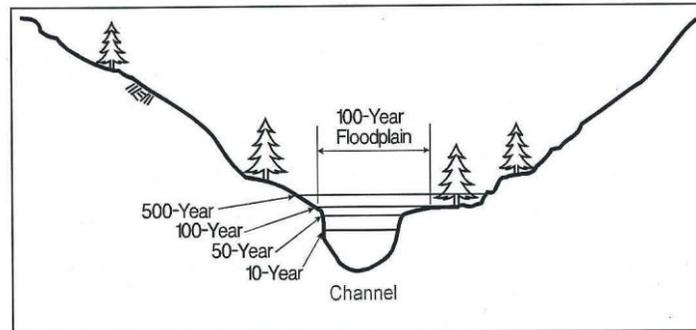
FLOOD OF 100 YEAR FREQUENCY (BASE FLOOD): A flood magnitude expected to recur on the average of once every 100-years or a flood magnitude that has a 1% chance of occurring in any given year.

FLOOD INSURANCE RATE MAP (FIRM): The map on which FEMA has delineated the 100-year floodplains, the Base Flood Elevations (BFE) and the risk premium zones.

FLOOD INSURANCE STUDY: The report in which FEMA has provided flood profiles, as well as the Flood Boundary/Floodway Map and the water surface profiles.

**FLOOD PROOFING**: any combination of structural and non-structural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

**FLOODPLAIN**: The area adjoining the watercourse or drainway that would be covered by the floodwater of a flood of 100-year frequency, except for sheetflood areas that receive less than 1 foot of water per occurrence and are considered “zone B” or a “shaded X zone” by the federal emergency management agency.



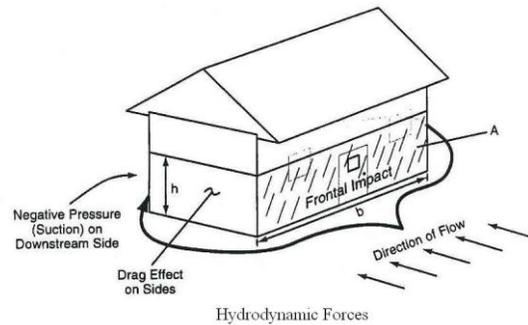
**FLOODPLAIN ADMINISTRATOR**: Community official or representative appointed to administer and implement the provisions of this ordinance.

**FLOODWAY**: The channel of a watercourse or drainway and those portions of the floodplain adjoining the channel that are reasonably required to carry and discharge the floodwater of any watercourse or drainway without cumulatively increasing the water surface by more than one half foot.

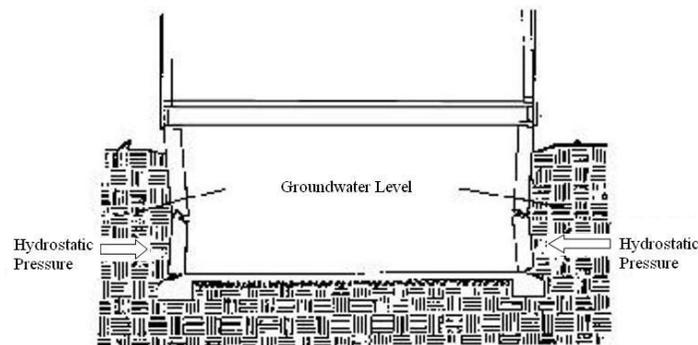
**FREEBOARD**: A factor of safety usually expressed in feet above a flood level for purposes of floodplain management. “Freeboard” tends to compensate for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, bridge openings, and the hydrological effect of urbanization of the watershed.

**HYDRAULICS**: The depth of water (elevation) in a drainage way, watercourse, river or stream channel.

**HYDRODYNAMICS**: The force of moving water, including the impact of debris and high velocities, along a structure.



**HYDROSTATIC:** The pressure put on a structure by the weight of standing water. The deeper the water, the more it weighs and the greater the pressure.



**LEVEE:** A man-made embankment, usually earthen, designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of water so as to provide protection from temporary flooding.

**LOWEST FLOOR:** Any floor used for living purposes, storage, or recreation. This includes any floor that could be converted to such a use.

**MANUFACTURED HOME:** A structure that is transportable in one or more sections, built on a permanent chassis and designed to be used with or without a permanent foundation when connected to the required utilities. This does not include “recreational vehicles.” For floodplain management purposes it also includes park trailers, travel trailers, and other similar vehicles placed on a site for greater than 180 consecutive days.

**MANUFACTURED HOME PARK OR SUBDIVISION:** A parcel or contiguous parcels of land divided into two or more manufactured home spaces or lots for rent or sale. Includes the construction of facilities for servicing the manufactured home lots and at a minimum includes the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads.

**MEAN SEA LEVEL:** The North American Vertical Datum of 1988 (NAVD 88) or other datum to which base flood elevations are referenced.

NEW CONSTRUCTION: Structures (which include new stick-built or moved) for which the start of construction, substantial improvement or alteration commences on or after the effective date of these Regulations.

NEW MANUFACTURED HOME PARK OR SUBDIVISION: A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads and is completed on or after the effective date of floodplain management regulations adopted by a community.

OFFICIAL FLOODPLAIN MAPS: The most recent Flood Insurance Study for Flathead County, Montana provided by the Federal Emergency Management Agency and the most recently adopted Flood Insurance Rate Maps and Floodway Maps. See Appendix A for a list of the currently effective FIS report and FIRM panels with accompanying effective dates.

OWNER: Any person who has dominion over, control of, or title to an artificial obstruction.

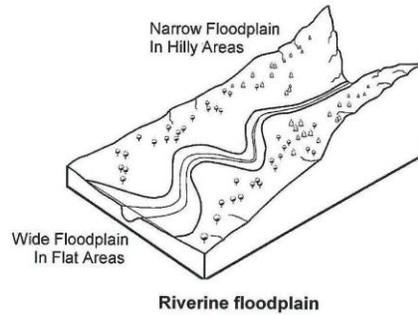
RECREATIONAL VEHICLE: A vehicle which is 1) built on a single chassis; 2) 400 square feet or less when measured at the largest horizontal projections; 3) designed to be self-propelled or permanently towable by a light duty truck; and 4) designed primarily for use as temporary living quarters for recreation, camping, travel, or seasonal use, not for use as a permanent dwelling.

REGULATED FLOOD HAZARD AREA: A floodplain whose limits have been designated pursuant to Part 2, Chapter 5 of Title 76, MCA, and is determined to be the area adjoining the watercourse that would be covered by the floodwater of a base flood, a flood of a 100-year frequency. The Regulated Flood Hazard Area consists of the floodway and flood fringe where specifically designated.

RESIDENTIAL: A building for living purposes or place of assembly or permanent use by human beings. All other buildings are non-residential.

RIPRAP: Stone, rocks, concrete blocks, or analogous material that is placed along the banks or bed of a stream to alleviate erosion.

RIVERINE: Relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.



**SCOUR DEPTH:** The maximum depth of streambed scour caused by erosive forces of the base flood discharge.

**SPECIAL FLOOD HAZARD AREA:** The area subject to flooding by the 1% annual chance flood (100-Year Flood) shown on the Flood Insurance Rate Map (FIRM). Areas of Special Flood Hazard include:

- Zone A: No base flood elevations determined.
- Zone AE: Base flood elevations determined.
- Zone AO: Flood depths of 1 to 3 feet (usually sheetflow on sloping terrain); average flood depths determined. For areas of alluvial fan flooding, velocities also determined.

**STRUCTURE:** A walled and roofed building, manufactured home, a gas or liquid storage tank, bridge, culvert, dam, diversion, wall, revetment, dike, or other projection that is principally above ground and may impede, retard, or alter the pattern of flow of water.

**START OF CONSTRUCTION:** Commencement of clearing, grading, filling, or excavating to prepare a site for construction.

**SUBSTANTIAL DAMAGE:** Damage of any origin sustained by a structure where the cost of restoring the structure to its condition before damage would equal or exceed fifty percent (50%) of the market value before the damage occurred.

**SUBSTANTIAL IMPROVEMENT:** Any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds fifty percent (50%) of the market value of the structure either:

- A. Before the improvement or repair is started, or
- B. If the structure has been damaged and is being restored before the damage occurred. For the purposes of this definition, substantial improvement is considered to occur when the first construction to any wall, ceiling, floor, or other structural part of the building commences. The term does not include:
  - 1. Any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions, or

2. Any alteration of a structure listed on the national register of historic places or state inventory of historic places.

SUITABLE FILL: Fill material which is stable, compacted, well graded, pervious, generally unaffected by water and frost, devoid of trash or similar foreign matter, devoid of tree stumps or other organic material, and is fitting for the purpose of supporting the intended use and/or permanent structure.

VARIANCE: A grant of relief from the requirements of these regulations, which would permit construction in a manner that would otherwise be prohibited by these regulations.

VIOLATION: The failure of a structure or other development to be fully compliant with these regulations. A structure or other development without elevation certificate, certification by a licensed engineer or architect of compliance with these regulations, or other evidence of compliance is presumed to be in violation until such time as proper documentation is provided.

WATER SURFACE ELEVATION: The height, in relation to the North American Vertical Datum of 1988 (NAVD 88), (or other datum where specified) of floods of various magnitudes and frequencies in the floodplain of riverine areas.

**Appendix A**

**Flathead County Flood Insurance Study**

<u>Study #</u>	<u>Suffix</u>	<u>Effective Date</u>	<u>Description</u>
<u>CV002</u>	<u>B</u>	<u>June 18, 2013</u>	<u>Revised Countywide FIS Report</u>

**Flathead County FIRMS – Community Number 30029**

<u>Panel #</u>	<u>Suffix</u>	<u>Effective Date</u>
<u>0425</u>	<u>G</u>	<u>September 28, 2007</u>
<u>0450</u>	<u>G</u>	<u>September 28, 2007</u>
<u>0725</u>	<u>G</u>	<u>September 28, 2007</u>
<u>0730</u>	<u>G</u>	<u>September 28, 2007</u>
<u>0735</u>	<u>G</u>	<u>September 28, 2007</u>
<u>0740</u>	<u>G</u>	<u>September 28, 2007</u>
<u>0745</u>	<u>G</u>	<u>September 28, 2007</u>
<u>0775</u>	<u>G</u>	<u>September 28, 2007</u>
<u>0825</u>	<u>G</u>	<u>September 28, 2007</u>
<u>0845</u>	<u>G</u>	<u>September 28, 2007</u>
<u>0850</u>	<u>G</u>	<u>September 28, 2007</u>
<u>0865</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1050</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1055</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1060</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1065</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1070</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1080</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1090</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1095</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1110</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1115</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1120</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1130</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1135</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1140</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1145</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1155</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1180</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1185</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1195</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1370</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1380</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1385</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1390</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1395</u>	<u>G</u>	<u>September 28, 2007</u>

<u>Panel #</u>	<u>Suffix</u>	<u>Effective Date</u>
<u>1405</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1410</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1415</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1420</u>	<u>H</u>	<u>June 18, 2013</u>
<u>1430</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1435</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1440</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1445</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1590</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1595</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1625</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1800</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1805</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1810</u>	<u>H</u>	<u>June 18, 2013</u>
<u>1815</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1820</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1830</u>	<u>H</u>	<u>June 18, 2013</u>
<u>1835</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1840</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1845</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1865</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1975</u>	<u>G</u>	<u>September 28, 2007</u>
<u>1980</u>	<u>G</u>	<u>September 28, 2007</u>
<u>2225</u>	<u>G</u>	<u>September 28, 2007</u>
<u>2250</u>	<u>G</u>	<u>September 28, 2007</u>
<u>2275</u>	<u>G</u>	<u>September 28, 2007</u>
<u>2280</u>	<u>G</u>	<u>September 28, 2007</u>
<u>2285</u>	<u>G</u>	<u>September 28, 2007</u>
<u>2300</u>	<u>G</u>	<u>September 28, 2007</u>
<u>2305</u>	<u>G</u>	<u>September 28, 2007</u>
<u>2310</u>	<u>G</u>	<u>September 28, 2007</u>
<u>2315</u>	<u>G</u>	<u>September 28, 2007</u>
<u>2320</u>	<u>G</u>	<u>September 28, 2007</u>
<u>2330</u>	<u>G</u>	<u>September 28, 2007</u>
<u>2340</u>	<u>G</u>	<u>September 28, 2007</u>
<u>2725</u>	<u>G</u>	<u>September 28, 2007</u>