

Missoula County Floodplain Regulations

AMENDED ~~APRIL 27, 2017~~



Clark Fork River, 2011 Flood

Missoula County Floodplain Regulations

Adopted by Resolutions:

#75-20 and #75-23 - March 28, 1975

Amended by Resolutions:

#83-73 - June 30, 1983

#88-083 - August 10, 1988

#88-101 - September 21, 1988

#88-111 - October 19, 1988

#91-013 – January 30, 1991

#95-043 - June 6, 1995

#2000-021 - March 8, 2000

#2002-117 – September 4, 2002

#2004-088 – June 9, 2004

#2015-070 – July 6, 2015

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Intent

This Resolution is passed in order to comply with the Montana Floodplain and Floodway Management Act (Title 76, Chapter 5 MCA) and to ensure compliance with the requirements for the continued participation by Missoula County in the National Flood Insurance Program. These land-use regulations are hereby adopted and apply to all designated 100-year floodplains within the jurisdiction of Missoula County.

Statutory Authority

Authority for counties to adopt floodplain management regulations appear in Section 76-5-401 through 406, MCA and is further described in Montana Administrative Rule (ARM) 36, Chapter 15.

Adoption

This Resolution adopts the set of comprehensive land-use regulations for designated 100-year floodplains within Missoula County.

March 7, 2019

Designation of 100-year floodplains is based on the Flood Insurance Study for Missoula County and Incorporated Areas, dated ~~July 6, 2015~~. All other Resolutions are hereby repealed to the extent of any inconsistencies.

Findings of Fact

Floodplains specifically adopted herein have been delineated and designated by order or determination of the Department of Natural Resources and Conservation (DNRC) pursuant to MCA 76-5-201 et seq.

These regulations have been reviewed by Montana Department of Natural Resources and Conservation and the Federal Emergency Management Agency. The Montana Department of Natural Resources and Conservation has found the regulations acceptable in meeting the Department minimum standards. The Federal Emergency Management Agency finds that these regulations are adequate and consistent with the comprehensive criteria for land management and use pursuant to the standards established in 44 CFR 60.3.

CHAPTER 1: TITLE AND PURPOSE

1.01 Title

These Regulations shall be known and cited as the Missoula County Floodplain Regulations. These Regulations are in accordance with exercising the authority of the laws of the State of Montana.

1.02 Purpose

To promote the public health, safety, and general welfare, to minimize flood losses in areas subject to flood hazards, and to promote wise use of the floodplain. These Regulations have been established with the following purposes intended:

- A. To guide development of the 100-year floodplain areas of Missoula County consistent with the enumerated findings by:
 - 1. Recognizing the right and need of water courses to periodically carry more than the normal flow of water;
 - 2. Participating in coordinating efforts of federal, state and local management activities for 100-year floodplains; and
 - 3. Ensuring that the regulations and minimum standards adopted, insofar as possible, balance the greatest public good with the least private injury.
- B. Specifically it is the purpose of these Regulations to:
 - 1. Restrict or prohibit uses which are dangerous to health, safety, and welfare of property in times of flood, or cause increase flood heights or velocities;
 - 2. Require that uses vulnerable to floods, including public facilities which serve such uses, be provided with flood protection at the time of initial construction;
 - 3. Utilize information which identifies lands which are unsuited for certain development purposes because of flood hazards;
 - 4. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
 - 5. Ensure that potential buyers are notified that property is within a 100-year floodplain and subject to the provisions of these Regulations;
 - 6. Minimize prolonged business and public service interruptions;
 - 7. Help maintain a stable tax base by providing for the sound use and development of floodprone areas in such a manner as to minimize future flood disruptions;
 - 8. Ensure compliance with the minimum standards for the continued participation in the National Flood Insurance program for the benefit of the residents; and
 - 9. Ensure that those who occupy 100-year floodplains assume responsibility for their actions.

CHAPTER II: DEFINITIONS

2.01 Definitions

Unless specifically defined below, words or phrases used in these Regulations shall be interpreted so as to give them the meaning they have in common usage and to give these Regulations their most reasonable application.

1. **100-Year Flood** – A flood having a one percent (1%) chance of being equaled or exceeded in any given year. A 100-year flood is the same as a base flood.
2. **Accessory Use or Structure** - A use or structure on the same lot with, and of a nature customarily incidental and subordinate to, the principal use or structure.
3. **Alteration** - Any change or addition to a structure or artificial obstruction that increases its external dimension or increases potential flood hazard.
4. **Appeal** - A request for a review of the Floodplain Administrator's interpretation of any provision of these Regulations.
5. **Artificial Obstruction** - Any obstruction which is not natural and includes any development, dam, diversion, wall, riprap, embankment, levee, dike, pile, abutment, projection, revetment, excavation, channel rectification, road, 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. See also Development.
6. **Base Flood** - A flood 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.
7. **Base Flood Elevation** - The elevation above sea level of the base flood in relation to the North American Vertical Datum of 1988 (NAVD88).
8. **Basement** – Any area of a building, except a crawlspace, having its lowest floor below ground on all sides.
9. **Building** - A walled and roofed structure that is principally above ground as well as a manufactured home.
10. **Channelization Project** - The excavation and/or construction of an artificial channel for the purpose of diverting the entire flow of a stream from its established course, or the placement of a stream in a culvert or artificially lined or armored channel other than for the purposes of perpendicular road crossings.
11. **Crawlspace** – an enclosure that has its interior floor area no more than 5' below the top of the structure's lowest floor and no more than 2' below the lowest adjacent grade on all sides. A foundation exceeding either dimension is a basement.
12. **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. See also Artificial Obstruction.
13. **Encroachment** – Activities or construction within the floodplain including fill, new construction, substantial improvements, and other development.
14. **Encroachment Analysis** – A hydrologic and hydraulic analysis performed by an engineer to assess the effects of the proposed artificial obstruction or nonconforming use on Base Flood Elevation and flood velocities.

15. **Establish** - To construct, place, insert or excavate.
16. **Existing Artificial Obstruction or Nonconforming Use** – An artificial obstruction or nonconforming use that was established before land use regulations were adopted pursuant to Section 76-5-301(1), MCA.
17. **Existing Manufactured Home Park or Subdivision** - A manufactured home park or subdivision where the construction of facilities for servicing the manufactured homes 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.
18. **FEMA** - The Federal Emergency Management Agency.
19. **Flood or Flooding** - A general and temporary condition of partial or complete inundation of lands from the overflow of a stream, or the unusual and rapid accumulation or runoff of surface waters from any source.
20. **Floodplain Administrator** – The Director of Missoula County Planning and Community Services or his/her designee appointed to administer and implement the provisions of these regulations.
21. **Floodplain** - The areas subject to these regulations, generally adjoining a stream, that would be covered by floodwater of a base flood including areas designated as A, AE, AH, AO, Floodway and Shaded Zone-X by FEMA.
22. **Floodway** - The floodplain area designated on the official floodplain maps that must be reserved in order to discharge a base flood without cumulatively increasing the water surface elevation more than one-half (1/2) foot.
23. **Flood Fringe** - That portion of the floodplain outside the limits of the floodway.
24. **Flood Insurance Rate Map (FIRM)** - The map on which the Federal Emergency Management Agency has designated the Special Flood Hazard Area. The FIRM is produced in both paper and digital formats.
25. **Flood Insurance Study** - The report in which the Federal Emergency Management Agency based the Flood Insurance Rate Maps upon. The Flood Insurance Study contains the Floodway Data Tables and the water surface profiles.
26. **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, electrical, plumbing, HVAC systems, structures and their contents. The term includes wet flood proofing, dry flood proofing and elevation of structures.
27. **Letter of Map Change (LOMC)** – An official response from FEMA that amends or revises the FEMA Special Flood Hazard Area and FEMA Flood Insurance Study for flood insurance purposes. FEMA Letters of Map Change include:

Letter of Map Amendment (LOMA) – A letter of determination from FEMA issued in response to a request that a property or structure is not subject to the mandatory flood insurance requirement because it was inadvertently located in the effective FEMA Special Flood Hazard Area. The material submitted and response from FEMA may be considered by the Floodplain Administrator for determining if a property or structure is within the Special Flood Hazard area and subject to these regulations.

Letter of Map Revision (LOMR) – An official FEMA amendment to the currently effective FEMA Flood Insurance Rate Map based on a physical change to the floodplain of the Special Flood Hazard Area. It is issued by FEMA and may change flood zones, delineations, or elevations on the FEMA Flood Insurance Rate Map and may amend the FEMA Flood Insurance Study. It must be preceded by an approved alteration of the designated floodplain from DNRC.

Letter Of Map Revision – Floodway (LOMR-FW) - A letter of determination from FEMA issued in response to a request that a property or structure is not subject to the mandatory flood insurance requirement because it was inadvertently located in the floodway within the effective FEMA Special Flood Hazard Area. The material submitted and response from FEMA may be considered by the Floodplain Administrator for determining if a property or structure is within the Special Flood Hazard area and subject to these regulations.

Conditional Letter of Map Revision (CLOMR) – A letter of approval for a proposed physical change that when completed would change by a subsequent LOMR the flood zones, delineations or elevations on the FEMA Flood Insurance Rate Map and may amend the FEMA Flood Insurance Study. The CLOMR may be considered in an evaluation by DNRC during consideration of a proposed alteration of the designated floodplain.

28. **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 to provide protection from temporary flooding.
29. **Lowest Floor Elevation** - Any floor usable, or that could be converted to use for living purposes, storage or recreation.
30. **Maintenance** - Customary and historical cleaning and removal of silt, branches, trees, sticks and other debris as well as minor repair or restoration of an existing structure or artificial obstruction to the size, shape, position and height it had immediately prior to its deterioration or destruction.
31. **Manufactured Home Park or Subdivision** – 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.
32. **Mean Sea Level** - The North American Vertical Datum of 1988 (NAVD88).
33. **Manufactured or Mobile 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. It does not include recreational vehicles or travel trailers.
34. **Manufactured or Mobile Home Lot** - A designated portion of a manufactured or mobile home park designed for the accommodation of one (1) mobile home and its accessory buildings or structures for the exclusive use of the occupants.
35. **Natural Obstruction** - Any rock, tree, gravel, or analogous natural matter that is an obstruction and has been located within the floodplain or floodway by a non-human cause.
36. **New Construction** - Structures for which the start of construction, substantial improvement or alteration commences on or after the effective date of these Regulations.
37. **Non-Conforming Use** - A land use not in accordance with these Regulations.
38. **Official Floodplain Maps** - The Flood Insurance Rate Maps provided by the Federal Emergency Management Agency (FEMA) for Missoula County that have been determined by the Department of Natural Resources and Conservation (DNRC) to meet the requirements of MCA 76-5-201 et.seq., FEMA-issued Letters Of Map Revision (LOMRs) and any other maps or flood information adopted by the Board of County Commissioners for this purpose and identified in the Appendix.
39. **Owner** - Any person who has dominion over, control of, or title to an obstruction or parcel of land.
40. **Permit Issuing Authority** - Floodplain Administrator as designated by the County of Missoula.
41. **Person** – Includes any individual, or group of individuals, corporation, partnership, association or any other entity, including State and local governments and agencies.

42. **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 and not for use as a permanent dwelling.
43. **Responsible Political Subdivision** - Missoula County, Montana, upon endorsement of this Resolution by the Montana Board of Natural Resources and Conservation.
44. **Riprap** – Stone or rock placed along the banks or bed of a stream for the purpose of alleviating erosion.
45. **Scour Depth** – The maximum potential depth of streambed scour caused by erosive forces of the Base Flood.
46. **Special Flood Hazard Area** – Land area which has been specifically identified by the Federal Emergency Management Agency on the Flood Insurance Rate Map as the floodplain within a community subject to a 1 percent or greater chance of flooding in any given year where federal flood insurance may be required.
47. **Stemwall Foundation** – A foundation system for a building including concrete walls extended two (2') feet above the base flood elevation where the area enclosed by the walls is filled with engineered compacted fill covered with a concrete slab.
48. **Structure** - A walled and roofed building or portions thereof, mobile home, gas or liquid storage tank, bridge, culvert, dam, diversion, wall, revetment, dike, or other projection that may impede, retard, or alter the pattern of flow of water.
49. **Substantial Damage** - Damage sustained by a structure taking place during a 10-year period where the cumulative cost of restoring the structure to its condition before damage would equal or exceed fifty percent (50%) of the market value of the structure before the damage occurred.
50. **Substantial Improvement** - Any combination of repair, reconstruction, or improvement of a structure, taking place during a 10-year period, the cumulative 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 structure commences during the 10-year period. The term does not include either:

 - a. 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
 - b. Any alteration of a structure listed on the National Register of Historic Places or State Inventory of Historic Places provided the proposed alteration will not preclude the structure's continued designation as a historic structure.
51. **Suitable Fill** - Fill material which is stable, compacted, well graded, pervious, generally unaffected by water and frost, devoid of trash or similar foreign matter, and tree stumps or other organic material; and is fitted for the purpose of supporting the authorized use and/or permanent structure.
52. **Variance** - A grant of relief from the development requirements of these Regulations which would permit construction in a manner that would otherwise be prohibited by these Regulations.
53. **Violation** – A finding and order pursuant to the regulations against the owner or responsible party of the failure of a structure or other development to be fully compliant with these regulations.

CHAPTER III: GENERAL PROVISIONS

3.01 Regulatory Area

These Regulations shall apply to all lands within the jurisdiction of the County of Missoula, State of Montana, shown on the Official Floodplain Maps as being located within the floodplain.

3.02 Official Floodplain Maps and Study

The lands of the floodplain regulatory area are delineated in the Missoula Flood Insurance Study. The basis for the Flood Insurance Study is a scientific and engineering report entitled, "Flood Insurance Study, Missoula County, Montana and Incorporated Areas," ~~dated July 6, 2015~~, with accompanying Flood Insurance Rate Maps. The Official Floodplain Maps, together with the Flood Insurance Study are on file in the Office of the Missoula County Floodplain Administrator

March 7, 2019

3.03 Missoula County Floodplain Administrator

Director of the Missoula County Planning and Community Services or his/her designee. The responsibilities of this position are outlined in Chapter IV of these regulations. The Floodplain Administrator must serve to meet and maintain the commitments pursuant to 44 CFR 59.22(a) to ensure individuals and businesses remain eligible for National Flood Insurance.

3.04 Rules for Interpretation of Floodplain Boundaries

- A. The boundaries of the floodway may be determined by scaling distances on the official floodplain maps and using the floodway data table contained in the Flood Insurance Study. Supporting study material for Base Flood Elevations takes precedence over any map illustrations.
- B. The maps may be used as a guide for determining the floodplain boundary but the exact location shall be determined where the base flood elevation intersects the natural ground, except as in 3.04 (C) below.
- C. Any structure or land area shown on the Flood Insurance Rate Maps as being in the 100-year floodplain is still governed by these regulations even if it is determined by FEMA to be above the 100-year flood elevation naturally and is supported by a Letter of Map Amendment or by fill and has received a Letter of Map Revision Based on Fill unless:
 1. A valid Letter of Map Amendment or Letter of Map Revision Based on Fill was issued prior to February 23, 2000; or,
 2. The area is not in danger from flooding caused by migration of a nearby creek or river as determined by an engineer or qualified hydrologist and that vehicle access has a flood depth and velocity within the Low Danger Zone as identified in Figure 1.
- D. A computed base flood elevation may be provided by an engineer for Zone A floodplains.

3.05 Alteration of Official Floodplain Map Area

1. Revisions or updates to the specific maps and data that alter the Official Floodplain Map area require DNRC approval pursuant to 75-5-203, MCA. An alteration of the floodplain is a DNRC approved amendment to the DNRC order that originally delineated and designated the 100-year floodplain and is the basis of the Official Floodplain Maps and Study Area referenced in Section 3.02. A DNRC approved alteration consists of revisions or updates to the specific maps and data of the referenced studies in this Section and forms the basis for an amendment to the floodplain in these regulations;
2. Any change to the Official Floodplain Map area as a result of a DNRC alteration is effective upon amendment to the Official Floodplain Map area as described in Section 3.02;

3. Substantial natural physical change or new technical or scientific flood data showing that the Base Flood Elevation has or may be changed or was erroneously established shall be brought to the attention of DNRC and FEMA;
4. Any Floodplain permit application for a proposed development or artificial obstruction must be denied until a DNRC alteration pursuant to 76-5-203, MCA is approved if it causes an increase of 0.5 feet or more to the Base Flood Elevation of an Official Floodplain Map area without a Floodway or an increase of more than 0.00 feet to the Base Flood Elevation of a Floodway.
5. To propose an alteration a request must be submitted to DNRC and must include the following information:
 - a. Certification that no buildings are located in the areas which would be impacted by the increased Base Flood Elevation or that impacts have been mitigated;
 - b. Evidence of notice to all property and land owners of the proposed impacts to their properties explaining the proposed impact on their property;
 - c. Information that demonstrates that alternatives are not feasible; and
 - d. Any other supporting information and data as needed for approvals.
6. The Floodplain Administrator may represent the permit authority for any necessary applications, approvals or endorsements such as the FEMA Community Acknowledgement Form to FEMA where affecting the FEMA Special Flood Hazard Area;
7. A determination by the Floodplain Administrator that land areas located within the Official Floodplain Map area are above the Base Flood Elevation as proven by a certified elevation survey does not constitute or require an alteration or an amendment of the Official Floodplain Map area and may be maintained as a public record that more explicitly defines the Official Floodplain Map area boundary;
8. A floodplain permit implementing the physical change cannot be approved until a CLOMR has been issued by FEMA.

3.06 Compliance

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

3.07 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. However, where these Regulations impose greater restrictions, the provisions of these Regulations shall prevail.

3.08 Regulation Interpretation

In their interpretation and application, the provisions of these Regulations shall be held to be minimum requirements, shall be liberally construed in favor of the governing body and deemed neither to limit nor repeal of any other powers granted by State statute.

3.09 Warning and Disclaimer of Liability

These Regulations do not imply that areas outside the designated floodplain boundaries or permitted land uses within such areas will always be totally free from flooding or flood damages. These Regulations shall not create a liability on the part of, or a cause of action against the County of Missoula, or any officer or employee thereof for any flood damages that may result from reliance upon these Regulations or any administrative decision lawfully made hereunder.

3.10 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.

3.11 Disclosure Provision

All property owners or their agents in a designated floodplain must notify potential buyers or their agents that such property is subject to the provisions of these Regulations. Upon resale of property, the lending institution must notify potential buyers a minimum of ten days prior to closing that the property is located within a special flood hazard area. The lender must also notify potential buyers whether, in the event of a flood disaster, Federal disaster relief would be available to the property.

3.12 Amendment of Regulations

These regulations may be amended after notice and public hearing. The amendments must be found adequate and acceptable by DNRC and FEMA to be effective and must be submitted for review at least 30 days prior to official adoption.

3.13 Public Records

Records, including permits and applications, elevation and flood proofing certificates, certificates of compliance, fee receipts, and other matters relating to these regulations must be maintained by the Floodplain Administrator and are public records and must be made available for inspection and for copies upon reasonable request. A reasonable copying cost for copying documents for members of the public may be charged and may require payments of the costs before providing the copies.

3.14 Disaster Recovery

In the event of a natural or man-made disaster, the Floodplain Administrator should participate in the coordination of assistance and provide information to structure owners concerning Hazard Mitigation and Recovery measures with the Federal Emergency Management Agency, Montana Disaster Emergency Services, Montana Department of Natural Resources and Conservation, and other state, local and private emergency service organizations.

Upon completion of cursory street view structure condition survey within lands included in the Floodplain, the Floodplain Administrator shall notify owners that a permit may be necessary for an alteration or substantial improvement before repair or reconstruction commences on damaged structures because of damages caused by natural or man-made disasters such as floods, fires or winds.

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

CHAPTER IV: ADMINISTRATION

4.01 Administration

- A. As provided in Section 3.03 of these regulations, the Floodplain Administrator has been designated by the Board of County Commissioners and has all the responsibility of such position as outlined in these regulations.
- B. Any development or artificial obstruction within the official floodplain mapped area requires the issuance of a permit, including the substantial improvement or alteration of existing artificial obstructions or uses and maintenance, substantial improvement and alteration of existing private levees and floodwalls and shall not be initiated, established or undertaken until a permit has been issued by the Floodplain Administrator.
- C. The Floodplain Administrator is hereby appointed with the authority to review floodplain development permit applications and issue or deny permits as well as review proposed uses or construction to determine compliance with these Regulations.
- D. **Additional Factors** - Floodplain development permits shall be granted, granted with conditions, or denied by the Floodplain Administrator on the basis of whether the proposed artificial obstruction or development or alteration or substantial improvement of an existing artificial obstruction or non-conforming use meets the requirements of these Regulations. The additional following factors that shall be addressed in the application during application of the specific standards in these regulations and considered in the Floodplain Administrator's decision for every permit application are:
 - 1. The danger to life and property due to increased flood heights, increased flood water velocities or alterations in the pattern of flood flow caused by encroachments;
 - 2. The danger that materials may be swept onto other lands or downstream to the injury of others;
 - 3. The proposed water supply and sanitation systems and the ability of these systems to prevent disease, contamination and unsanitary conditions;
 - 4. The susceptibility of the proposed facility and its contents to flood damage and the effects of such damage on the individual owner;
 - 5. The effect of the project on other properties;
 - 6. The likelihood that the structure or building will be threatened due to its proximity to the stream or potential lateral movement of the stream;
 - 7. The effect of the project on streamside vegetation and the stability of the stream bank;
 - 8. The importance of the services provided by the facility to the community;
 - 9. The requirement of the facility for a water-front location;
 - 10. The availability of alternative locations on the parcel not subject to flooding for the proposed use;
 - 11. The compatibility of the proposed use with existing development and anticipated development in the foreseeable future;
 - 12. The permanence of the obstruction or use and if it is reasonably safe from flooding;
 - 13. The relationship of the proposed use in the flood fringe to the Growth Policy as provided for in ARM 36.15.701(3)b in unzoned areas. In assessing compatibility, the following factors should be considered: the goals and objectives expressed by the plan, the more specific land uses recommended in the plan, the availability of services to support additional development in the project area, and whether or not the current development pattern in the project area—if different from the plan's recommended land use pattern for that area—is consistent with the

- plan's goals and objectives. A floodplain permit cannot be denied based solely on non-compliance with the Growth Policy;
14. The safety of access to property in times of flooding for ordinary and emergency services determined through flood depth and flood velocities published in the Flood Insurance Study or independent hydraulic analysis in Zone A floodplains with no base flood elevations and Figure 1;
 15. The effect of the project on water rights;
 16. The cumulative effect of the proposed project along with other existing projects;
 17. The danger to life and property due to channel migration, backwater or diverted flow caused by the obstruction or use;
 18. The construction or alteration of the obstruction or use in such manner as to lessen the flooding danger
 19. The potential that the stream bank material will cause erosion;
 20. The amount of channel constriction caused by the project;
 21. The use of flood-resistant materials;
 22. The effects on species protected by the Endangered Species Act or of special interest or concern to the State of Montana; and
 23. The project is in harmony with the purposes of these Regulations, the Montana Floodplain and Floodway Management Act and regulations and the National Flood Insurance Program.
- E. The proposed use shall comply with existing zoning.
 - F. If the floodplain permit application is found to be missing the required elements and if the applicant corrects the identified deficiencies and resubmits the floodplain application, the Floodplain Administrator shall notify the applicant whether the resubmitted Floodplain application contains all the elements required by these regulations, as applicable. This process shall be repeated until the applicant submits a completed floodplain permit application containing all the elements required by these regulations, or the application is withdrawn.
 - G. A floodplain development permit application is considered to have been automatically granted sixty (60) days after receipt of a completed permit application by the Floodplain Administrator unless the applicant has been notified that the permit is denied, conditionally approved or additional information pertinent to the permit review process is required.
 - H. The Floodplain Administrator shall maintain such files and records as may be necessary to document non-conforming uses, base flood elevations, fee receipts, the issuance of permits, agendas, minutes, records of public meetings, and any other matters related to floodplain management in the County of Missoula. Such files and records shall be open for public inspection.
 - I. Copies of all permits granted shall be sent to the Department of Natural Resources and Conservation in Helena, Montana.
 - J. Notifications by the Floodplain Administrator shall be made to adjacent communities, the DNRC Floodplain Management Section and the Federal Emergency Management Agency prior to any alteration or relocation of a stream having a designated floodplain to assure that the flood-carrying capacity within the altered or relocated portion of any stream is maintained. Approval by the DNRC and FEMA is required.
 - K. The Floodplain Administrator may require whatever additional information is necessary to determine whether the proposed activity meets the requirements of these regulations. Additional information may include hydraulic calculations assessing the impact on base flood elevations or velocities; assessment by an independent hydrologist; level survey; or certification by a registered land surveyor, professional engineer, or licensed architect that the requirements of these regulations

are satisfied. A determination that a floodplain permit application is correct and complete for review does not ensure that the floodplain permit application will be approved or conditionally approved and does not limit the ability of the Floodplain Administrator to request additional information during the review process.

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

4.02 Permit Applications

- A. Permit applicant's shall be required to furnish as much of the following as is deemed necessary by the Floodplain Administrator for determining the completeness of the application:
 - 1. Plans drawn to scale with dimensions shown, showing the nature, location and elevation of the lot, existing and proposed structure locations, fill, storage or materials site, flood-proofing measures, first floor of proposed structures in mean sea level elevation and location of the channel;
 - 2. A plan view of the proposed development indicating external dimensions of structures, street or road finished grade elevations, well location and individual sewage treatment and disposal site, excavation and/or fill quantity estimates, site plan and/or construction plans.
 - 3. Specifications for flood-proofing, filling, excavating, grading, riprapping, storage of materials and utilities location.
 - 4. A 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.
 - 5. A pre-construction FEMA elevation certificate and/or certification of flood-proofing prepared and stamped by a registered professional engineer or licensed land surveyor shall be provided.
 - 6. Prior to issuance of a floodplain permit, the applicant is required to submit proof that permits have been received from those governmental agencies from which approval is required by federal and state law and local codes, or resolutions, including but not limited to Section 404 of the Federal Water Pollution Control Act of 1972, the 310 provisions of the Natural Streambed and Land Preservation Act, the 318 provisions of the Montana Water Quality Act, a 124 permit from Montana Fish Wildlife and Parks and a Navigable Rivers Land Use License or Easement from the Montana Department of Natural Resources and Conservation.
 - 7. The applicant is required to submit with the permit application a Conditional Letter of Map Revision issued by FEMA and approval from DNRC for development where the encroachment increases the Base Flood Elevation by more than 0.00 feet within the floodway or an encroachment of more than 0.5 feet in a floodplain without a floodway.
 - 8. Additional information related to the specific use are artificial obstruction or development that demonstrates the design criteria and constructions standards are met or exceeded as specified in Sections 5, 6 and 7 of these regulations, the additional factors in Section 4.01 (D) of these regulations and any additional information specifically requested by the Floodplain Administrator to ensure compliance with these regulations.
- B. If the Floodplain Administrator determines in the course of reviewing the permit application submittal that a technical review is needed to ensure compliance with these Regulations, the cost shall be borne by the applicant.

4.03 Permit Conditions

Upon approval of the floodplain permit application, the Floodplain Administrator shall provide the applicant with a floodplain permit with applicable specific requirements and conditions including but not limited to:

1. Development authorized by permit shall be completed within 180 days unless a longer or shorter period is specified when the permit is issued or an extension is granted by the Floodplain Administrator. An extension must be requested at least 30 days prior to the permitted completion deadline.
2. The applicant shall provide within 30 days of completion a post-construction FEMA elevation certificate prepared and stamped by a registered professional engineer or licensed land surveyor of all new, altered or substantially improved structures.
3. If floodproofing techniques were utilized for the structure, then the elevation in NAVD88 to which the flood-proofing was accomplished must be similarly certified within 30 days of completion.
4. In the case of flood control works and within 30 days of completion, certification from a registered professional engineer or licensed land surveyor shall be provided stating that the structure meets the requirements of the floodplain regulations. Engineering certification must be provided within 30 days of completion where anchoring of a manufactured or mobile home is required.
5. The applicant shall notify their agents and potential buyers of the floodplain development permit issued on the property and that such property is located within the designated floodplain.
6. The applicant and the applicant's assigns shall maintain the artificial obstruction or use to comply with the conditions and specifications of the permit;
7. The applicant shall allow the Floodplain Administrator to perform onsite inspections at select intervals during construction and upon completion;
8. When applicable, the applicant shall provide periodic engineering oversight and/or interim reports during the construction period to be submitted to the Floodplain Administrator to confirm constructed elevations and other project elements;
9. When applicable, the applicant shall submit evidence of a FEMA Letter of Map Revision (LOMR) submittal to FEMA and applicable fees within 6 months of project completion and proceed with due diligence for acceptance of the document and necessary supporting materials by FEMA.

4.04 Emergencies

Emergency repair and replacement of severely damaged artificial obstructions and development in the floodplain, including public transportation facilities, public water and sewer facilities, flood control works and private projects are subject to the permitting requirements of these regulations. The provisions of these regulations are not intended to affect other actions that are necessary to safeguard life or structures during periods of emergency.

1. The property owner and or the person responsible for taking emergency action must notify the Floodplain Administrator prior to initiating any emergency action in the floodplain normally requiring a Floodplain permit. An Emergency Notification Form must be submitted to the Floodplain Administrator within five (5) days of the action taken as a result of an emergency.

2. Unless otherwise specified by the Floodplain Administrator, within 30 days of initiating the emergency action, a person who has undertaken an emergency action must submit a Floodplain Permit Application that describes what action has taken place during the emergency and describe any additional work that may be required to bring the project in compliance with these regulations.
3. A person who has undertaken an emergency action may be required to modify or remove the project in order to meet the permit requirements.

4.05 Variances

- A. The Missoula Board of County Commissioners shall serve as the Missoula Floodplain Regulation Board of Appeals. Requests for variances may be brought to the Missoula Floodplain Regulation Board of Appeals at any time.
- B. Within 60 working days after the receipt of a complete and correct Floodplain Permit Application and a determination by the Floodplain Administrator that a permit can likely be issued except for the requested variance, the variance request shall be submitted to the Missoula Floodplain Regulation Board of Appeals. The Floodplain Administrator shall provide the Missoula Floodplain Regulation Board of Appeals with recommended findings of fact and conclusions of law and a recommendation to approve, approve with conditions, or deny the variance.
- C. After receiving the variance request from the Floodplain Administrator but before acting on the same, the Missoula Floodplain Regulation Board of Appeals shall hold a public hearing on the variance request. Missoula County shall provide notice of the time and date of the hearing to adjacent property owners and the Montana Department of Natural Resources and by publication in a newspaper of general circulation in the County not less than fifteen (15) days prior to the date of the hearing.
- D. The Missoula Floodplain Regulation Board of Appeals may grant a variance to the permit requirements that is not in compliance with the minimum standards of these Regulations according to the following procedures:
 1. Variances shall only be granted upon the applicant demonstrating:
 - a. A showing of good and sufficient cause. Financial hardship is not a good and sufficient cause;
 - b. A determination that refusal of a variance would, because of exceptional circumstances, cause a unique or undue hardship on the applicant or community involved;
 - c. A determination that the granting of a variance will not result in increased flood heights, present additional threats to public safety, be an extraordinary public expense, create nuisances, cause fraud, victimize the public, or conflict with existing state and local laws;
 - d. A determination that a proposed use would be adequately flood-protected;
 - e. A determination that a reasonable alternative location outside the floodplain is not available;
 - f. Residential and nonresidential buildings are not in the floodway except for substantial improvements to existing buildings.
 - g. Residential dwellings do not have the lowest floor elevation including basements, attached garages or crawlspaces beneath the Base Flood Elevation;
 - h. A determination that the variance requested is the minimum necessary to afford relief, considering the flood hazard; and
 - i. An approval of the Montana Department of Natural Resources and Conservation is required prior to the Missoula Floodplain Regulation Board of Appeals approving any permit application which is in variation to these Regulations.

2. Variance decisions shall be issued in writing from the Missoula Floodplain Regulation Board of Appeals and, when applicable, shall notify the applicant that:
 - a. the specific variance is denied or granted along with any conditions, the findings of fact and conclusions of law attached thereon; and
 - b. the issuance of a variance to construct a structure not meeting the minimum building requirements in these regulations results in increased risks to life and property and flood insurance premiums.
 3. The Floodplain Administrator shall maintain the records of variance notification, variance actions, justification for their issuance and forward copies of all variances, including actions, to the Montana Department of Natural Resources and the Federal Emergency Management Agency
- E. Any person or persons aggrieved by the floodplain variance decision may appeal such decision in a court of competent jurisdiction.

4.06 Administrative Appeals

- A. The Missoula Board of County Commissioners shall serve as the Missoula Floodplain Regulation Board of Appeals. Appeals from any decision made by the Floodplain Administrator may be made to the Missoula Floodplain Regulation Board of Appeals within 30 days of such decision by an aggrieved person or persons, jointly or separately aggrieved.
- B. After receiving a request for an administrative appeal, but before acting on the same, the Missoula Floodplain Regulation Board of Appeals shall hold a public hearing on the appeal. Notice of the time and date of the hearing shall be given by publication in a newspaper of general circulation in the County not less than fifteen (15) days prior to the date of the hearing.
- C. A judgment on an appeal shall be made within 30 days of the hearing unless set otherwise. The decision may affirm, modify, or overturn the Floodplain Administrator's decision. A decision on an appeal of a permit cannot grant a variance. A decision may support, reverse or remand an order by the Floodplain Administrator.
- D. The Floodplain Administrator shall maintain the records of appeals and forward copies of all appeals to the Montana Department of Natural Resources.
- E. Any person or persons aggrieved by the decision on an administrative appeal may appeal such decision in a court of competent jurisdiction.

4.07 Fees

A processing fee is required for processing permits, appeals and variances, and shall cover the cost of providing public notice, processing permits and variances, and performing sufficient field inspections to ensure compliance with these regulations.

4.08 Violation Notice

The Floodplain Administrator shall bring any alleged violation of these Regulations to the attention of the County Attorney and the Montana Department of Natural Resources and Conservation.

4.09 Compliance

Any use, arrangement or construction not in compliance with that authorized by permit shall be deemed a violation of these Regulations and punishable as provided in Section 4.08 or enforced as provided in MCA 76-5-110.

4.10 Penalties

- A. **Misdemeanor** - Violation of the provisions of these Regulations or failure to comply with any of the requirements, including failure to obtain permit approval prior to floodplain development excluding an emergency shall constitute a misdemeanor and may be treated as a public nuisance.

Any person who violates these Regulations or fails to comply with any of its requirements shall, upon conviction thereof, be fined not more than \$100 or be imprisoned in jail for not more than 10 days or both. Each day's continuance of a violation shall be deemed a separate and distinct offense. Nothing herein contained shall prevent Missoula County from taking such other lawful action as is necessary to prevent or remedy any violation of these regulations or to mitigate true damages caused by any violation.

B. Declaration to the Federal Flood Insurance Administrator - Upon finding of a violation and failure of the owner to take corrective action as ordered, the Floodplain Administrator may submit notice and request a 1316 Violation Declaration to the Federal Insurance Administrator. The Federal Insurance Administrator has the authority to deny new and renewal flood insurance for a structure upon finding a valid violation declaration.

The Floodplain Administrator shall provide the Federal Insurance Administrator the following:

1. The name(s) of the property owner(s) and address or legal description of the property sufficient to confirm its identity and location;
2. A clear and unequivocal declaration that the property is in violation of a cited federal, State or local law, rule or regulation;
3. A clear statement that the floodplain administrator making the declaration has authority to do so and a citation to that authority;
4. Evidence that the property owner has been provided notice of the violation and the prospective denial of insurance; and
5. A clear statement that the declaration is being submitted pursuant to section 1316 of the National Flood Insurance Act of 1968, as amended.

4.11 Emergency Preparedness Planning

In formulating community development goals, the community shall consider the development of a plan for evacuating floodplain residents. This plan should be developed, filed with, and approved by appropriate community emergency management authorities.

CHAPTER V: SPECIFIC STANDARDS

5.01 Application

The following applicable minimum development standards listed in this chapter are to be demonstrated to be met by the applicant for the following specific areas of the floodway, flood fringe and floodplain of the 100-year floodplain as delineated on the Official Floodplain Maps and correspond to the A, AE, AH, AO and Shaded-X zones depicted.

5.02 Floodway

- A. Uses Requiring Permits** - The following artificial obstructions including alterations and substantial improvements to existing artificial obstructions may be allowed in the floodway subject to the issuance of a permit by the Floodplain Administrator provided it is demonstrated in an encroachment analysis that any encroachment by the development does not increase the base flood elevation more than 0.00 feet as certified by an engineer unless a Conditional Letter of Map Revision (CLOMR) accompanies the application, the Official Floodplain Maps herein are amended before the permit can be issued and a subsequent Letter of Map Revision (LOMR) is issued by FEMA upon project completion.
1. Mining of materials, excavation of pits and pools provided that:
 - a. a buffer strip of undisturbed land of sufficient width to prevent flood flows from channeling or laterally migrating into the excavation is left between the edge of the channel and the edge of the excavation;
 - b. the excavation meets all applicable laws and regulations of other local and state agencies; and
 - c. excavated material is stockpiled outside the floodway.
 2. Railroad, highway and street stream crossings under the following conditions:
 - a. The crossings are designed to offer minimal obstruction to flood flow; and,
 - b. The crossings do not increase the base flood elevation nor cause a change in normal or flood-stage stream velocities that would likely cause a problematic change in erosion or deposition patterns; and,
 - c. Overflow channels are preserved to allow passage of the base flood; and,
 - d. Except for spans on which a mid-stream support is essential, all obstructions are outside the natural stream banks. Anticipated lateral migration of the stream will be considered in the location of the abutments; and,
 - e. Mid-stream supports must have footings buried below the maximum potential scour depth during the base flood; and,
 - f. The applicant demonstrates to the Floodplain Administrator and County Public Works Director that there is adequate freeboard to convey ice jams, the 100-year flood, and any debris associated with such a flood. This freeboard shall be at least two feet above the base flood elevation; and,
 - g. Reasonable alternatives to the stream crossing do not exist.
 3. Limited filling for highway, street and railroad embankments not associated with stream crossings provided that:

- a. reasonable alternative transportation routes outside the designated floodway are not available; and,
 - b. such floodway encroachment is located as far from the stream channel as possible and shall not increase the base flood elevation.
4. Buried or suspended utility transmission lines, with the following conditions:
 - a. Suspended utility transmission lines are designed such that the lowest point of the suspended line is at least fifteen (15) feet higher than the elevation of the flood of 100-year frequency on the Bitterroot, Blackfoot, Clark Fork and Swan Rivers, and at least ten (10) feet on other streams; and,
 - b. Towers and other appurtenant structures are designed and placed to withstand and offer minimal obstruction to flood flows; and,
 - c. Underground utility transmission lines carrying toxic or flammable materials are buried to a depth of at least twice the calculated maximum potential scour depth during the base flood. The maximum depth of scour shall be determined from any of the accepted hydraulic engineering methods, but final calculated figures shall be subject to approval by the Floodplain Administrator. The length of maximum burial shall take into account likely channel migration; and,
 - d. Whenever technically feasible and in consideration of the costs in relation to the scope of the project, crossings will not disturb the bed or banks of the stream. Alternatives such as alternative routes, directional drilling, and aerial crossings will be considered in light of all relevant issues.
5. Storage of materials and equipment provided that:
 - a. the material or equipment is not subject to major damage by flooding and is properly anchored to prevent flotation or downstream movement; or
 - b. the material or equipment is readily removable within the limited time available after flood warning. Storage of flammable, toxic, hazardous or explosive materials shall not be permitted.
6. Water supply wells provided that:
 - a. they are driven or drilled wells located on ground higher than the surrounding ground to assure positive drainage from the well; and
 - b. they require no other structures such as a well house; and
 - c. well casings are water tight to a distance of at least twenty-five (25) feet below the ground surface and wellheads are located a minimum of 18 inches above the ground and 2 feet above the base flood elevation; and
 - d. water supply and electrical lines have a watertight seal where the lines enter the casing; and
 - e. all pumps, electrical lines and equipment are either of the submersible type or are adequately flood proofed; and,
 - f. check valves are installed on main water lines at wells and all building entry locations.
7. Buried and sealed vaults for sewage disposal in recreational areas provided that they meet applicable laws and standards administered by the Department of Environmental Quality and Missoula County Environmental Health.
8. Public or private campgrounds provided that:

- a. Access roads do not increase the base flood elevation and do not obstruct or divert flood waters; and
 - b. No dwellings or permanent mobile homes are allowed; and,
 - 9. **C** Recreational vehicles and travel trailers are licensed and ready for highway use. They are ready for highway use if it is on its wheels or jacking system with wheels intact, are attached to the site with only by quick disconnect type utilities and securing devices, and have no permanently attached additions.
 - 10. Structures accessory to the uses permitted in this section such as boat docks, marinas, sheds, picnic shelters, tables and toilets provided that:
 - a. the structures are not intended for human habitation;
 - b. the structures will have a low flood damage potential;
 - c. the structures will, insofar as possible, be located on ground higher than the surrounding ground and as far from the channel as possible;
 - d. the flood-proofing standards of Chapter VI are met; and
 - e. the structures will be constructed without fill and placed so there is a minimal obstruction to flood flows and anchored to prevent flotation.
 - 11. Replacement, alteration or substantial improvement of an existing mobile home on a developed site with servicing utilities provided that
 - a. The replacement home must be elevated on a permanent foundation so the lowest floor is 2 feet above the base flood elevation.
 - b. The foundation must be reinforced concrete, reinforced mortared block or poured piers, or other foundation elements of equal strength.
 - c. The chassis must be securely anchored to the foundation system with anchoring components capable of carrying a force of 4,800 pounds so that it will resist flotation, collapse or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top frame ties to ground anchors.
 - d. Mobile homes proposed for use as commercial or industrial structures must be elevated 2 feet above the base flood elevation and cannot be dry floodproofed.
 - e. Adequate surface drainage and access for a hauler are provided.
 - 12. Substantial improvement or alteration of any legal artificial obstruction which existed prior to the delineation of the regulatory floodway provided all the provisions of Section 5.03.B.3 through 5.03.B.6 of these Regulations are met. In the floodway, a substantial improvement of an existing building must be elevated on a permanent stemwall foundation rather than on fill. Flood-proofing shall be accomplished in accordance with Chapter VI of these Regulations.
 - 13. Other than any prohibited uses, all other artificial obstructions, substantial improvements, alterations or non-conforming uses not specifically listed in these Regulations.
- B. Permits for Flood Damage Control Projects-** Flood damage control projects shall be allowed within floodways provided the applicant demonstrates by engineering certification that the project is able to substantially withstand the forces associated with the hydrodynamic and hydrostatic pressures associated including flood depths, velocities, impact, ice, buoyancy and uplift associated with the base flood and it is demonstrated in an encroachment analysis that any encroachment by the development does not increase the base flood elevation more than 0.00 feet as certified by an engineer unless a Conditional Letter of Map Revision (CLOMR) accompanies the application,

the Official Floodplain Maps herein are amended before the permit can be issued and a subsequent Letter of Map Revision (LOMR) is issued by FEMA upon project completion provided:

1. For maintenance, substantial improvement or alteration of existing private levees or floodwalls, the applicant demonstrates the following criteria to the satisfaction of the Floodplain Administrator:
 - a. The length of the levee is the minimum required to protect the existing structures it is meant to serve. The analysis should detail the flood heights and velocities that would be experienced during a base flood if the levee were not present or were to fail; and
 - b. The cost of the project would not exceed 75% of the cost of elevating, floodproofing, and/or relocating the structures protected by the levee. The costs of these repairs are cumulative over 20 years from the date of the first repairs; and
 - c. A hydrologist or other qualified professional evaluates the effects of the levee both upstream and downstream and demonstrates that it would not cause foreseeable impacts to nearby property owners; and
 - d. The levee or floodwall is designed and constructed to safely convey the base flood; and
 - e. The levee or floodwall is constructed at least three (3) feet higher than the base flood elevation; and
 - f. The cumulative effect of the levee or floodwall does not increase the base flood elevation or significantly change velocities at any point in the vicinity of the project.
 - g. The Floodplain Administrator may waive 5.02 (B-1 a-c) if an existing stream bank levee is to be moved back from the stream bank to provide the maximum amount of flood storage.

2. Bank stabilization utilizing new, reconstructed or repaired riprap and other predominantly rock structures provided:
 - a. The project is to protect an existing residence, commercial building, industrial use, or necessary private or public infrastructure that is in imminent danger. A structure is considered to be in imminent danger when the ground beneath it is likely to be eroded or collapsed by a flood of a 10-year frequency or smaller, as estimated by a qualified hydrologist or engineer. Rip rap may be permitted as preventive maintenance for bridge abutments, roads, industrial uses, and public infrastructure; and
 - b. The cost of the project would not exceed 75% of the cost of relocating the structures to be protected. The costs of the project are cumulative over 20 years from the date of the first construction and/or repairs; and
 - c. The structure to be protected was constructed before February 23, 2000; and
 - d. A hydrologist or other qualified professional evaluates the stream/river upstream and downstream to determine the likely cause of bank erosion, and demonstrates that the cause of the problem cannot be feasibly fixed using other reliable stabilization techniques; and
 - e. The project is certified by an engineer to withstand the base flood; and
 - f. The project does not increase the base flood elevation; and

- g. The project will not substantially affect vertical bed stability or substantially increase erosion upstream, downstream, or adjacent to the site; and
 - h. When practical and in situations where the integrity of the project will not be compromised, the project incorporates anchored woody debris or other design features to slow water velocities, and also incorporates revegetation on the upper bank and upstream and downstream of the project. The applicant shall submit an annual performance and maintenance report on bank stabilization or other projects utilizing maturing vegetative components to the Floodplain Administrator for a period of 5 years or a time specified in the permit.
3. Other bank stabilization techniques, such as root wads, brush mattresses, willow wattling, and tree revetments provided:
- a. The project is certified by an engineer that anticipated erosion, sedimentation, and transport of the materials are no more than the amount and rate of existing natural stream banks during the base flood; and,
 - b. The project does not increase the base flood elevation; and
 - c. The project results in long-term revegetation of the stream bank and adjacent areas with native vegetation; and
 - d. The floodplain is reserved or created to hold stream discharges greater than bankfull flows; and
 - e. The owner maintains the project to achieve long-term goals. The applicant shall submit an annual performance and maintenance report on bank stabilization or other projects utilizing maturing vegetative components to the Floodplain Administrator for a period of 5 years or a time specified in the permit.

C. Permits for Water Diversions: Water diversions are allowed within floodways provided:

- 1. An engineering certification demonstrates that the project is able to substantially withstand the forces associated with the hydrodynamic and hydrostatic pressures associated including flood depths, velocities, impact, ice, buoyancy and uplift associated with the base flood; and
- 2. The development does not increase the base flood elevation more than 0.00 feet as certified by an engineer unless a Conditional Letter of Map Revision (CLOMR) accompanies the application, the Official Floodplain Maps herein are amended before the permit can be issued and a subsequent Letter of Map Revision (LOMR) is issued by FEMA upon project completion; and
- 3. The structure is designed to pass bedload and large debris.

D. Prohibited Uses Within The Floodway - The following artificial obstructions and non-conforming uses are prohibited within the floodway:

- 1. New construction of any residential, commercial or industrial buildings; and
- 2. Encroachments including fill, new construction, substantial improvements, alterations and other development that would result in erosion of embankment, obstruction of the natural flow of waters or increase the base flood elevation except as what may be authorized through an alteration of the Floodway per Section 3.05; and
- 3. The construction or permanent storage of an object subject to flotation or movement during flood level periods; and
- 4. Mobile homes; and
- 5. Solid and hazardous waste disposal, water distribution systems, and sewage treatment and/or disposal systems except as allowed or approved under the laws and standards administered

by the Montana Department of Environmental Quality and the Missoula City/County Health Department; and

6. Storage of toxic, flammable or explosive materials; and
 7. Cemeteries, mausoleums, or any other burial grounds; and
 8. Alterations of structures unless it can be shown the alteration will not raise flood heights; and
 9. Channelization projects; and
 10. Clearing of native vegetation within 50 feet from the ordinary high watermark of a stream; and
 11. Permanent fences crossing streams; and
 12. The operation or use of any tractor, backhoe, bulldozer, or other blade or bucket equipped vehicle within a stream or along the stream bank.
- F. **Uses Allowed in the Floodway Without a Floodplain Permit.** Existing artificial obstructions or nonconforming uses established prior to March 28, 1975 pursuant to Section 76-5-301, MCA are allowed without a permit. However, alteration or substantial improvement of an existing artificial obstruction or nonconforming use requires a floodplain permit. Additionally, the following open space uses shall be allowed without a permit anywhere within the floodway, provided that such uses conform to the provisions of Chapter VI of the regulations, do not require a structure, are not prohibited by any other regulation or statute, and no part of the activity requires a permit as listed above such as fill, grading, excavation or storage of materials or equipment:
1. Maintenance of publicly owned flood control projects; and
 2. Agricultural uses not including related structures, such as tilling, farming, irrigation, ranching, harvesting and grazing; and
 3. Accessory uses, not including structures, such as loading or parking areas, or emergency landing strips associated with industrial or commercial facilities; and
 4. Private and public recreational uses such as at-grade golf courses, driving ranges, archery ranges, picnic grounds, parks, wildlife management and natural areas, game farms, shooting preserves, target ranges, trap and skeet ranges, hunting and fishing areas, and hiking or horseback riding trails; and
 5. Forestry, including processing of forest products with portable equipment; and
 6. Residential uses such as lawns, gardens, parking areas and play areas; and
 7. Fences that have a low impact to the flow of water such as barbed wire fences and wood rail fences; and
 8. Maintenance of artificial obstructions other than private levees and riprap within one (1) year after its obvious deterioration or destruction provided:
 - a. If an artificial obstruction is left in a state of disrepair or deterioration for a period of one (1) year or more, it shall be considered to be abandoned and its reconstruction or repair shall require a Floodplain Permit;
 - b. If an artificial obstruction is over fifty (50) percent destroyed, the obstruction is substantially damaged and a Floodplain Permit shall be required;

- c. Maintenance does not require the operation or use of any tractor, backhoe, bulldozer, or other blade or bucket equipped vehicle within a stream channel or along the bank of any stream unless authorized by a maintenance plan approved through a floodplain permit.
- 9. Recreational vehicles provided that they be on the site for fewer than 180 consecutive days or be fully licensed and ready for highway use. A recreational vehicle is ready for highway use if it is on its wheels or jacking system with wheels intact, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.
- 10. Highway guard rail, signing and utility poles that have a low impact to the flow of water.

5.03 Flood Fringe

- A. **Uses Allowed in the Flood Fringe Without Permits** - All uses allowed in the floodway without a permit, according to the provisions of these Regulations, shall also be allowed without a permit in the flood fringe. In addition, individual or multiple family subsurface sewage disposal systems are allowed only when they are reviewed and approved under laws and regulations administered by the Department of Health.
- B. **Uses in the Flood Fringe Requiring Permits** - All uses allowed in the floodway subject to the issuance of a permit, according to the provisions of these Regulations, shall also be allowed by permit within the flood fringe. The encroachment limit does not apply and an encroachment analysis is not required for any development in the Flood Fringe where an accompanying Floodway has been designated within the Regulated Flood Hazard Area. In addition, new construction, substantial improvements and alterations to structures including, but not limited to, residential, commercial and industrial buildings and suitable fill shall be allowed by permit from the Floodplain Administrator provided:
 - 1. Artificial obstructions must not be prohibited by any other statute, regulation, ordinance or resolution;
 - 2. Such artificial obstructions must be compatible with the Growth Policy in unzoned areas;
 - 3. The new construction, alterations and substantial improvements of residential buildings must be constructed on stemwall foundations such that the lowest floor including attached garage slabs is two (2) feet or more above the base flood elevation. Flood-proofing of electrical, heating, and plumbing systems shall be accomplished in accordance with Chapter VI of these regulations. With equivalent compensatory flood storage provided onsite, suitable fill may be placed for the garage approach and against the exterior stemwall foundation to the base flood elevation for a 15' minimum perimeter fill provided it has been compacted to 95 percent of the maximum density obtainable with the standard proctor test method per ASTM Standard D698 or AASHTO T99.
 - 4. The new construction, alteration and substantial improvement of detached garages shall be constructed with concrete perimeter walls and materials resistant to flooding extending two (2) feet above the base flood elevation and;
 - a. At grade with walls designed to automatically equalize hydrostatic forces by allowing for entry and exit of floodwaters by having two (2) or more openings with a total net free area of not less than one (1) square inch for every one (1) square foot of enclosed area below the lowest floor. The bottom of openings shall be no higher than one (1) foot above the higher of the exterior or interior adjacent grade or floor immediately below the openings.

Openings may be equipped with screens or devices which permit the automatic entry and exit of floodwaters; or

- b. Elevated to a minimum of the base flood elevation on fill that has been compacted to 95 percent of the maximum density obtainable with the standard proctor test method per ASTM Standard D698 or AASHTO T99. Equal compensatory storage provided for the garage approach shall be provided onsite and where necessary, the approach shall be culverted to minimize the obstruction to flood flow.
5. The new construction, alteration and substantial improvement of commercial and industrial buildings must be constructed on stemwall foundations or be adequately flood-proofed as follows:
- a. **Wet Floodproofing** - 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. The floors and walls shall be designed and constructed of materials resistant to flooding to an elevation no lower than 2 feet above the base flood elevation. Walls shall be designed to automatically equalize hydrostatic forces by allowing for entry and exit of floodwaters by having two (2) or more openings with a total net free area of not less than one (1) square inch for every one (1) square foot of enclosed area below the lowest floor. The bottom of openings shall be no higher than one (1) foot above the higher of the exterior or interior adjacent grade or floor immediately below the openings. Openings may be equipped with screens or devices which permit the automatic entry and exit of floodwaters. Flood-proofing of electrical, heating, and plumbing systems shall be accomplished in accordance with Chapter VI of these regulations; or
 - b. **Dry Floodproofing** - 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 2 feet above the base flood elevation. 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 also be certified by an engineer to withstand the hydrostatic, hydrodynamic, and buoyancy effects of the base flood.
 - c. With equivalent compensatory flood storage provided onsite, suitable fill may be placed against the exterior stemwall foundation to the base flood elevation for a 15' minimum perimeter fill provided it has been compacted to 95 percent of the maximum density obtainable with the standard proctor test method per ASTM Standard D698 or AASHTO T99.
6. All mobile homes including replacement, alteration or substantial improvement of existing mobile homes placed in the flood fringe must have the chassis securely anchored to a foundation system that will resist floatation, collapse, or lateral movement. Anchoring must meet the requirements of Section 5.02 A.11 of these regulations. Flood-proofing shall be accomplished in accordance with Chapter VI of these Regulations provided:
- a. The lowest floor must be elevated 2 feet above the base flood elevation on a permanent stemwall foundation, reinforced mortared block or poured piers or other open foundation elements of at least equivalent strength.
 - b. Mobile homes proposed for use as commercial or industrial structures must be elevated 2 feet above the base flood elevation and cannot be dry floodproofed.
 - c. Adequate surface drainage and access for a hauler shall be provided.

7. Roads, streets, highways and rail lines shall be designed to minimize increases in flood heights. Where failure or interruption of transportation facilities would result in danger to the public health or safety, the facility shall be located two (2) feet above the elevation of the flood of 100-year frequency.
 8. Agricultural structures that have a low flood damage potential, such as sheds, barns, shelters, and hay or grain storage structures must be adequately anchored to prevent flotation or collapse. Flood-proofing shall be accomplished in accordance with Chapter VI of these Regulations.
 9. Fill material placed in the flood fringe must be 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 appropriate for the purpose of supporting the authorized use and/or permanent structure.
 10. Recreational vehicles, if they are on the site for more than 180 consecutive days or are not ready for highway use, must meet the elevating requirements of Section 5.03-B.5.
- C. **Prohibited Uses** - The following artificial obstructions and non-conforming uses are prohibited within the flood fringe:
1. Solid and hazardous waste disposal, water distribution systems, and sewage treatment and/or disposal systems except as allowed or approved under the laws and standards administered by the Montana Department of Environmental Quality and as allowed or approved under regulations administered by the Missoula City-County Board of Health.
 2. Storage of toxic, flammable, hazardous or explosive materials. Storage of petroleum products may be allowed by permit if stored on compacted fill at least two (2) feet above the elevation of the base flood elevation.
 3. Cemeteries, mausoleums or any other burial grounds;
 4. Critical facilities, including buildings and associated structures that provide essential community care and emergency operation functions such as schools, hospitals, nursing home facilities, fire stations and police stations.
 5. Construction or placement of a new residence with vehicular access having a flood depth and velocity outside of the Low Danger Zone identified in Figure 1.

5.04 Floodplain Areas with Base Flood Elevations without a Floodway

A development proposed for a 100-year floodplain within Zone AE, where base flood elevations are available but no floodway is delineated may not significantly increase flood velocities, raise the base flood elevation more than one-half foot as shown by an encroachment analysis or generally alter patterns of flood flow. The provisions of Sections 5.02 A-C & E and 5.03 shall apply to these areas. The Floodplain Administrator shall require the applicant to furnish additional hydraulic data before acting on a permit application for such a floodplain. The data may include, but is not limited to, any of the following:

1. A hydraulic study documenting probable effects on upstream, downstream, or adjacent property owners caused by the proposed development;
2. The calculated increase in the 100-year flood water surface profile caused by the proposed development.

5.05 Zone AO Floodplains

The provisions of Sections 5.02 A-C & E and 5.03 of these Regulations apply to Zone AO floodplains. The base flood elevation is the depth number designated on the Flood Insurance Rate Maps and shall be referenced to the highest adjacent grade in determining flood-proofing heights in applying Section 5.03.B of these Regulations. The encroachment limit does not apply and an encroachment analysis is not required for any development in the AO floodplain.

Adequate surface drainage must be provided around structures.

AH and

either identified or

AH and

AH and

5.06 Zone A Floodplains With No Base Flood Elevations

The minimum floodplain development standards listed in this chapter apply to the designated floodplains with no base flood elevations and identified as Zone A floodplains on the Missoula County Flood Insurance Rate Maps including parcels divided off another parcel containing Zone A floodplain after August 15, 1983 as follows:

- A. **Uses Allowed Without Permits** - All uses allowed in the floodway and flood fringe without a permit shall also be allowed without a permit in Zone A floodplains.
- B. **Uses Requiring Permits** - All uses allowed in the floodway and flood fringe subject to the issuance of a permit shall require permits from the Floodplain Administrator for Zone A floodplains.
- C. **Base Flood Elevation** - Where necessary to meet the appropriate elevation requirements in these regulations, the Base Flood Elevation(s) must be determined by an engineer and utilized in the design and layout of the project demonstrating the design and construction criteria herein are met. The provisions of Section 5.04 also apply to the Zone A floodplains with no floodway delineated or water surface profile computed.
- D. **Divisions Of Land** - The base flood elevation shall be determined by an engineer for subdivision proposals and subdivision exemptions as per Missoula County Subdivision Regulations. The elevation data shall be utilized to ensure compliance with these Regulations. Subdivision proposals shall also provide for adequate drainage to minimize potential flood hazards.
- E. **Prohibited Uses** - Those uses prohibited in the Flood Fringe, in accordance with Section 5.03 C of these Regulations shall also be prohibited within the Zone A floodplain boundaries.

CHAPTER VI: FLOOD-PROOFING REQUIREMENTS

6.01 Certification

The following flood-proofing requirements are to be utilized and certified by an engineer for a proposed building in accordance with these Regulations.

6.02 Conformance

Permitted flood-proof systems shall conform to the conditions listed below and the flood-proofing standards listed in Section 5.03-B.4. of these regulations for commercial and industrial buildings:

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 must be located at least two (2) feet above the base flood elevation;
2. Portable or movable electrical equipment may be placed below the base flood elevation provided that the equipment can be disconnected by a single plug-in-socket assembly of the submersible type;
3. The main power service line shall have automatically operated electrical disconnect equipment or manually operated electrical disconnect equipment located at an accessible remote location outside the floodplain or two (2) feet above the base flood elevation; and
4. All electrical wiring systems installed at or below the base flood elevation shall be suitable for continuous submergence and may not contain fibrous components.

B. Heating and Cooling Systems

1. Heating and cooling systems, including ductwork, shall be located two (2) feet above the base flood elevation.
2. Manually operated gate valves that can be operated from a location above the elevation of the flood of 100-year frequency shall also be provided in gas supply lines; and
3. Electric heating systems must be installed in accordance with the provisions of Section 6.02.A.

C. Plumbing Systems

1. Sewer lines, except those to be buried and sealed in vaults, must have check valves installed to prevent sewage backup into permitted structures; and
2. All toilet stools, sinks, urinals and drains must be located such that the lowest point of possible water entry is at least two (2) feet above the elevation of the flood of 100-year frequency.

CHAPTER VII: ENFORCEMENT

7.01 INVESTIGATION REQUEST

An investigation to determine compliance with these regulations for an artificial obstruction or nonconforming use within the floodplain may be made either on the initiative of the Floodplain Administrator or on the written request of three titleholders of land which may be affected by the activity. The names and addresses of the persons requesting the investigation shall be released if requested.

7.02 NOTICE TO ENTER AND INVESTIGATE LANDS OR WATERS

The Floodplain Administrator may make reasonable entry upon any lands and waters for the purpose of making an investigation, inspection or survey to verify compliance with these regulations.

- A. The Floodplain Administrator shall provide notice of entry by mail, electronic mail, phone call, or personal delivery to the owner, owner's agent, lessee, or lessee's agent whose lands will be entered.
- B. If none of these persons can be found, the Floodplain Administrator shall affix a copy of the notice to one or more conspicuous places on the property.
- C. If the owners do not respond, cannot be located or refuse entry to the Floodplain Administrator, the Floodplain Administrator may seek a Search Warrant.

7.03 NOTICE TO RESPOND AND ORDER TO TAKE ACTION

When the Floodplain Administrator determines that a violation has occurred, the Floodplain Administrator may issue written notice to the owner or an agent of the owner, either personally or by certified mail. Such notice shall cite the regulatory offense and include an order to take corrective action within a reasonable time specified by the Floodplain Administrator.

7.04 ADMINISTRATIVE REVIEW

The order to take corrective action is final, unless within five (5) working days after the order is received, the owner submits a written request for an administrative review by the Floodplain Administrator. A request for an administrative review does not stay the order.

7.05 APPEAL OF ADMINISTRATIVE DECISION

Within ten (10) working days of the Floodplain Administrator's decision concluding the administrative review, the property owner or owner's agent may appeal the decision pursuant to Section 4.04.

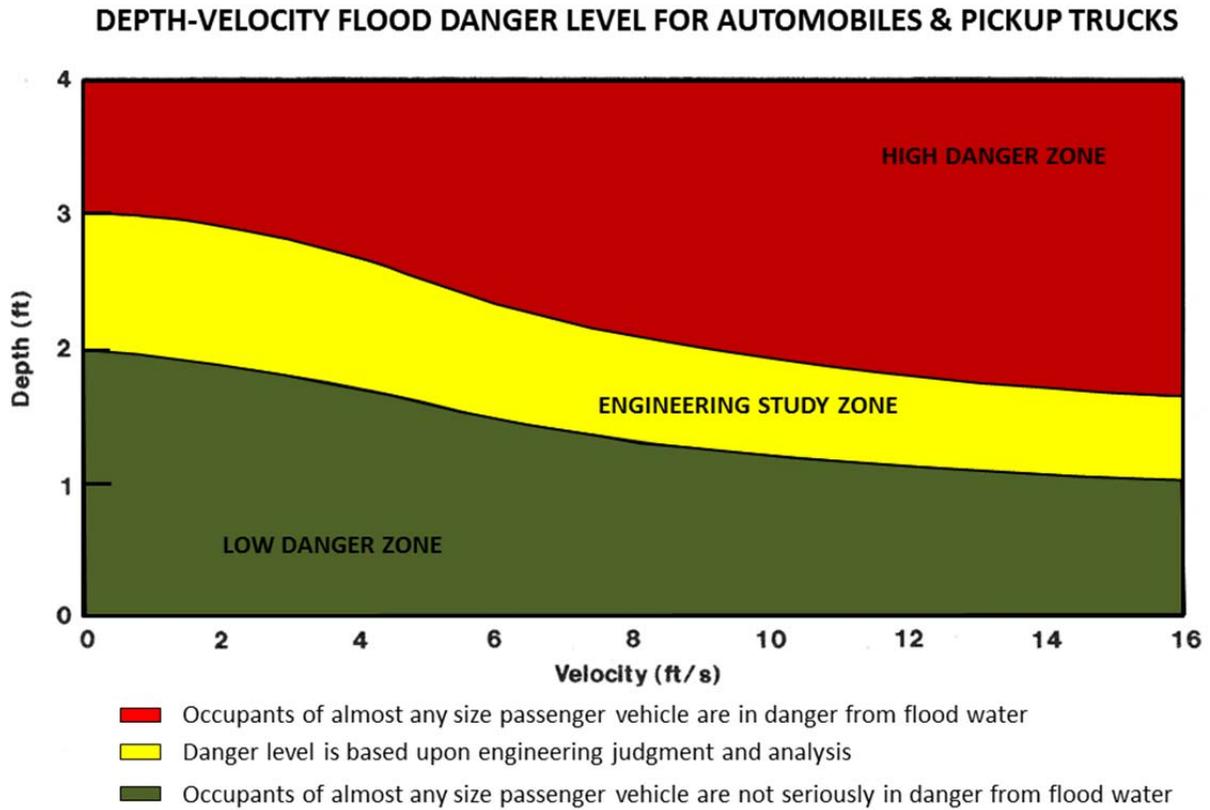
7.06 FAILURE TO COMPLY WITH ORDER TO TAKE ACTION

If the owner fails to comply with the order for corrective action, remedies may include administrative or legal actions, or penalties through court.

7.07 OTHER REMEDIES

This section does not prevent efforts to obtain voluntary compliance through warning, conference, or any other appropriate means. Action under this part shall not bar enforcement of these regulations by injunction or other appropriate remedy.

FIGURE 1



Adapted From Montana DNRC Dam Safety Program, Technical Note 2 (August, 2010)

APPENDIX

Letters of Map Revision

15-08-1043P

July 7, 2015

Superseded 14-08-0395P

Blackfoot & Clark Fork Rivers

Panels 1220, 1240, 1485, 1505

~~Preliminary Flood Insurance Rate Maps~~

~~Swan River~~

~~March 30, 2017~~