

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

CHAPTER 15

FLOODPLAIN MANAGEMENT ENGINEERING BUREAU

Sub-Chapter 1

Definitions

Rule 36.15.101 Definitions

Sub-Chapter 2

Regulation and Enforcement

Rule 36.15.201 Local Regulation and Enforcement

36.15.202 Board Approval of Local Regulations
and Enforcement

36.15.203 Time Limit for Adoption of Local Regulations

36.15.204 Local Regulations - Requirements

36.15.205 Board Review of Local Enforcement

Rules 36.15.206 through 36.15.208 Reserved

36.15.209 Department Regulation and Enforcement

36.15.210 Environmental Impact Statements

Rules 36.15.211 through 36.15.215 Reserved

36.15.216 Permits - Criteria - Time Limits

36.15.217 Waiver of Permit for Emergency Repair
or Replacement

36.15.218 Variances

Sub-Chapters 3 and 4 Reserved

Sub-Chapter 5

Floodplain and Floodway Delineations

Rule 36.15.501 Floodplain and Floodway Delineation - Data
Used - Hydrological Certainty

ADMINISTRATIVE RULES OF MONTANA 12/31/89

36-271

DEPARTMENT OF NATURAL RESOURCES
AND CONSERVATION

- Rule 36.15.502 Floodway Delineation
- 36.15.503 Public Input on Proposed Designed
Floodplains or Floodways
- 36.15.504 Local Government Adjustments to Proposed
Floodway Delineation
- 36.15.505 Alteration of Floodplains and Floodways

Sub-Chapter 6

Designated Floodway Minimum Standards

- Rule 36.15.601 Uses Allowed Without Permits
- 36.15.602 Uses Requiring Permits
- 36.15.603 Permits for Water Diversions
- 36.15.604 Minimum Criteria for Permits
- 36.15.605 Prohibited Uses
- 36.15.606 Permits for Flood Control Work

Sub-Chapter 7

Flood Fringe Minimum Standards

- Rule 36.15.701 Allowed Uses
- 36.15.702 Flood Proofing for Commercial and
Industrial Structures
- 36.15.703 Prohibited Uses

Sub-Chapter 8

Designated Floodplain Only Minimum Standards

- Rule 36.15.801 Allowed Uses Where Floodway Not Designated
or No Flood Elevations

36-272

12/31/89

ADMINISTRATIVE RULES OF MONTANA

FLOODPLAIN MANAGEMENT

Sub-Chapter 9

Flood Proofing Requirements

- | | |
|----------------|--|
| Rule 36.15.901 | Flood Proofing Requirements for Electrical Systems |
| 36.15.902 | Flood Proofing Requirements for Heating Systems |
| 36.15.903 | Flood Proofing Requirements for Plumbing Systems |

NEXT PAGE IS 36-275

ADMINISTRATIVE RULES OF MONTANA 12/31/89

36-273

Sub-Chapter 1

Definitions

36.15.101 DEFINITIONS In addition to the definition of terms contained in Section 76-5-103, MCA, and unless the context requires otherwise, as used in the Act and in this chapter:

- (1) "Act" means Title 76, chapter 5, MCA, as amended.
- (2) "Alteration" means any change or addition to an artificial obstruction that either increases the size of the artificial obstruction or increases its potential flood hazard Maintenance of an artificial obstruction is not an alteration.
- (3) "Artificial obstruction" means 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 protecting 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.
- (4) "Base flood" means a flood having a one percent (1%) chance of being equalled or exceeded in any given year. A base flood is the same as a flood of 100-year frequency.
- (5) "Base flood elevation" means the elevation above sea level of the base flood in relation to national geodetic vertical datum of 1929, unless otherwise specified.
- (6) "Board" means the board of natural resources and conservation.
- (7) "Channelization project" means the excavation and construction of an artificial channel for the purpose of diverting the entire flow of a watercourse or drainway from its established course.
- (8) "Department" means the department of natural resources and conservation.
- (9) "Establish" means to construct, place, insert, or excavate.
- (10) "Flood fringe" means that portion of a designated floodplain outside the limits of a designated floodway.
- (11) "Floodplain," means the area adjoining the watercourse or drainway which would be covered by the floodwater of a base flood except for sheetflood areas that receive less than 1 foot of water per occurrence and are considered zone b areas by the federal emergency management agency. The floodplain consists of the floodway and flood fringe.

36.15.101 DEPARTMENT OF NATURAL RESOURCES
AND CONSERVATION

(12) "Flood boundary" the designated floodplain boundary is based on base flood elevations. The mapped floodplain boundary may be used as a guide for determining whether property is within the designated floodplain, but the exact boundary shall be determined according to the base flood elevation.

(13) "Floodway," means the channel of a watercourse or drainway and those portions of the floodplain adjoining the channel which are reasonably required to carry and discharge the floodwater of any watercourse or drainway.

(14) "Lowest floor" means any floor used for living purposes, storage, or recreation. This includes any floor that could be converted to such a use.

(15) "Manufactured home" means 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. 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.

(16) "Permit issuing authority" means the responsible political subdivision, if any, or the department if there is no responsible political subdivision.

(17) "Responsible political subdivision" means a political subdivision that has received board approval of its adopted land use regulations and administrative and enforcement procedures in accordance with section 76-5-302, MCA, and ARM 36.15.201 through 36.15.204.

(18) "Riprap" means stone, rock, concrete block, or analogous material that is placed along the banks or bed of a watercourse or drainway for the purpose of alleviating erosion.

(19) "Sheetflooding" means areas subject to 100-year flooding with depths less than one (1) foot. Sheetflood areas are generally removed from the main stream channel and have been identified as zone b by FEMA or as a sheetflood zone by the soil conservation service.

(20) "Start of construction" for purposes of these rules means the commencement of clearing, grading, filling or excavation for the purposes of preparing a site for construction.

(21) "Substantial improvement" means 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:

(i) 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

(ii) any alteration of a structure listed on the national register of historic places or state inventory of historic places

(22) "Suitable fill" means fill material which is stable, compacted, well graded, pervious, not adversely affected by water and frost, devoid of trash or similar foreign matter, tree stumps, or other organic material; and is fitting for the purpose of supporting the intended use and/or permanent structure.

(23) "Variance" means a grant or relief from the requirements of these rules which would permit construction in a manner that would otherwise be prohibited by these rules.

(24) "100 year frequency flood" - See "base flood". (History: Sec. 76-5-208, MCA; ,IMP, Sec. 76-5-208 and Sec. 76-5-404, MCA; NEW, Eff. 9/4/74; AMD, 1989 MAR p. 1665, Eff. 10/27/89.)

NEXT PAGE IS 36-279

ADMINISTRATIVE RULES OF MONTANA 12/31/89

36-277

Sub-Chapter 2

Regulation and Enforcement

36.15.201 LOCAL REGULATION AND ENFORCEMENT (1) If a political subdivision adopts land use regulations that equal or exceed the minimum standards contained in sub-chapters 6 through 9 of these rules within the time specified and if the administrative and enforcement procedures for such regulations meet the requirements of these rules and are approved by the board in accordance with section 76-5-302, MCA, no permit will be required from the department. (History: Sec. 76-5-208, MCA; IMP, Sec. 76-5-302, MCA; NEW, Eff. 9/4/74; EMERG, AMD, Eff. 9/4/75.)

36.15.202 BOARD APPROVAL OF LOCAL REGULATIONS AND ENFORCEMENT (1) Copies of all regulations and administrative and enforcement procedures proposed to be adopted by a political subdivision to meet the requirements of the Act and these rules shall be sent to the department for approval by the board.

(2) The department will notify the political subdivision by letter of board approval or disapproval.

(3) Any changes to the regulations or administrative and enforcement procedures proposed to be adopted by a political subdivision shall be sent to the department for approval by the board. (History: Sec. 76-5-208, MCA; IMP, Sec. 76-5-302, MCA; NEW, Eff. 9/4/74; EMERG, AMD, Eff. 9/4/75; AMD, 1989 MAR p. 1665, Eff. 10/27/89.)

36.15.203 TIME LIMIT FOR ADOPTION OF LOCAL REGULATIONS

(1) After a floodway or a floodplain has been designated by the board, the department shall notify the affected political subdivisions and set forth the date by which the political subdivision must adopt land use regulations and administrative and enforcement procedures in accordance with the Act and these rules. (History: Sec. 76-5-208, MCA; IMP, Sec. 76-5-302, MCA; NEW, Eff. 9/4/74; EMERG, AMD, Eff. 9/4/75; AMD, 1989 MAR p. 1665, Eff. 10/27/89.)

36.15.204 LOCAL REGULATIONS - REQUIREMENTS (1) Land use regulations adopted by a local political subdivision in conformance with the Act and these rules may include zoning, building codes, and subdivision regulations adopted pursuant to other enabling statutory authority, such as Title 76, chapters 1 and 3; Title 76, chapter 2, part 3; and Title 76, chapter 2, parts 1 and 2, MCA; as well as regulations adopted under the authority given in sections 76-5-404 through 76-5-406, MCA.

36.15.204 DEPARTMENT OF NATURAL RESOURCES
AND CONSERVATION

(2) Any land use regulations and administrative and enforcement procedures adopted to comply with the Act and these rules must include the following:

(a) A permit is required prior to the new construction, substantial improvement or alteration of any artificial obstruction;

(b) Regulations governing the granting of permits must be at least as stringent as the minimum standards contained in these rules;

(c) Provisions for providing notice to the department, adjacent property owners, and the public of proposed actions requiring a permit or variance in accordance with these rules. Notice shall be published in a legal newspaper published or of general circulation in the area and shall include a brief description of the proposed activity. There shall be a period not less than fifteen days following publication of notice to receive comment regarding the proposed activity for consideration prior to issuance of a permit or variance. If the responsible political subdivision determines that comments warrant it, a hearing may be held to determine if the proposed issuance or denial of a permit or the proposed issuance or denial of a variance is in accordance with adopted regulations and these rules.

(d) The approval of the department must be obtained prior to the approval by the political subdivision pursuant to ARM 36O15.216(3) of any permit application that is in variance with the adopted regulations and these rules;

(e) Copies of all permits and variances granted must be sent to the department;

(f) Before the regulations are effective, all known property owners within the designated floodplain and designated floodway must be notified by mail by the political subdivision that their property is located within the designated floodplain or floodway and is subject to regulation. This notification provision shall not apply to political subdivisions that have adopted building codes requiring permits for new construction or to municipalities or counties that have received flood hazard boundary maps or flood insurance rate maps from the United States department of housing and urban development or the federal emergency management agency;

(g) A disclosure provision requiring all property owners with property in a designated floodplain or floodway, or their agents to notify potential buyers that such property is located within the designated floodplain or floodway and is subject to regulation;

(h) An official must be hired or appointed with the authority to review permit applications and proposed uses or construction to determine compliance with the Act, these rules, and the regulations adopted by the political subdivision.

(3) The regulations may also include the following:

(a) requirements that existing nonconforming uses be inspected and documented to insure future compliance;

(b) the imposition of a reasonable application fee for the processing of permit applications. The fee may cover the costs of providing public notice, processing permits and variances, and performing sufficient field inspections to ensure compliance with these rules. (History: Sec. 76-5-208, MCA; IMP, Sec. 76-5-302, MCA; NEW, Eff. 9/4/74; EMERG, AMD, Eff. 9/4/75; AMD, 1989 MAR p. 1665, Eff. 10/27/89.)

36.15.205 BOARD REVIEW OF LOCAL ENFORCEMENT (1) The department shall periodically report to the board on permit and variances filed, complaints received, and any other relevant information on the administration and enforcement of local regulations by the responsible political subdivision.

(2) If the board determines that the responsible political subdivision has failed to comply with the intent, purposes, or provisions of the local regulations, these rules, or the Act, the board may, after hearing, suspend the powers of the responsible political subdivision. In accordance with ARM 36.15.209 the department shall enforce the minimum standards adopted by the board until such time as the board determines that the responsible political subdivision will comply. (History: Sec. 76-5-208, MCA; IMP, Sec. 76-5-302(2), MCA; NEN, 1989 MAR p. 1665, Eff. 10/27/89.)

36.15.206 through 36.15.208 reserved

NEXT PAGE IS 36-283

36.15.209 DEPARTMENT REGULATION AND ENFORCEMENT (1) If the political subdivision fails to adopt land use regulations and administrative and enforcement procedures that meet or exceed the minimum standards required by the Act and these rules within the time specified, or fails to enforce the regulations, the minimum standards set forth in the Act and these rules regulating the designated floodplain or floodway will be enforced by the department.

(2) An application to the department for a permit shall be made on a standard form furnished by the department and shall include all applicable information listed on the form.

(3) The permit, if approved, will be given by the department on a standard form.

(4) A permit application requiring an environmental impact statement will be specifically approved or denied by the department only after full compliance with the provisions of the Montana Environmental Policy Act. Normally, the period of time required for review of these permit applications will be from 60 to 120 days. (History: Sec. 76-5-208, MCA; IMP, Sec. 76-5-301 and 76-5-405, MCA; NEW, Eff. 9/4/74, AMD, 1989 MAR p. 1665, Eff. 10/27/89.)

36.15.210 ENVIRONMENTAL IMPACT STATEMENTS

(IS HEREBY REPEALED) (History: Sect. 76-5-208, MCA; IMP, Sec. 76-5-405, MCA; NEW, Eff. 9/4/74, REE, 1989 MAR p. 1665, Eff. 10/27/89.)

36.15.211 through 36.15.215 reserved

NEXT PAGE IS 36-287

36.15.216 PERMITS - CRITERIA - TIME LIMITS (1) Permits shall be granted or denied by the permit issuing authority on the basis of whether the proposed new construction, substantial improvement, or alteration of an artificial obstruction meets the requirements of the Act and the minimum standards established by the board in these rules.

(2) Additional factors that shall be considered for every permit application are:

(a) the danger to life and property from backwater or diverted flow caused by the obstruction;

(b) the danger that the obstruction will be swept downstream to the injury of others;

(c) the availability of alternative locations;

(d) the construction or alteration of the obstruction in such manner as to lessen the danger;

(e) the permanence of the obstruction;

(f) The anticipated development in the foreseeable future of the area which may be affected by the obstruction; and,

(g) such other factors as are in harmony with the purposes of the Act and these rules.

(3) A permit application is considered to have been automatically granted 60 days after receipt of the application, unless the permit issuing authority notifies the applicant before the 60th day that additional information is required, more time is required to process the application, or that the permit is denied. (History: Sec. 76-5-208, MCA; IMP, Sec. 76-5-405 and 76-5-406, MCA; NEW, Eff. 9/4/74; AND, 1988 NAR p. 1537, Eff. 7/15/88; AND, 1989 NAR p. 1665, Eff. 10/27/89.)

36.15.217 WAIVER OF PERMIT FOR EMERGENCY REPAIR OR REPLACEMENT (1) Emergency repair to and/or replacement of severely damaged public transportation facilities, public water and sewer facilities, and flood control works may be authorized and permit requirements waived if:

(a) Upon notification and prior to the emergency repair and/or replacement, the permit issuing authority determines that an emergency condition warranting immediate action exists; and

(b) The permit issuing authority agrees upon the nature and type of proposed emergency repair and/or replacement.

(2) Authorization to undertake emergency repair and/or replacement work may be given verbally if the permit issuing authority feels that 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 a notation that verbal authorization had been previously given. (History: Sec. 76-5-208, MCA; IMP, Sec. 76-5-405 and Sec. 76-5-406, MCA; NEW, 9/4/74.)

36.15.218 DEPARTMENT OF NATURAL RESOURCES
AND CONSERVATION

36.15.218 VARIANCES (1) The permit issuing authority may grant a variance for the new construction, substantial improvement or alteration of an artificial obstruction that is not in compliance with the minimum standards contained in these rules only if:

(a) the proposed use would not increase flood hazard either upstream or downstream in the area of insurable buildings

(b) refusal of a variance would because of exceptional circumstances cause a unique or undue hardship on the applicant or community involved;

(c) the proposed use is adequately floodproofed;

(d) reasonable alternative locations outside the designated floodplain are not available. (History: Sec. 76-5-405 and 76-5-406, MCA; IMP, Sec. 76-5-405 and 76-5-406, MCA; NEW, 1989 MAR p. 1665, Eff. 10/27/890)

Sub-Chapters 3 and 4 reserved

NEXT PAGE IS 36-299

36-288 12/31/89

ADMINISTRATIVE RULES OF MONTANA

Sub-Chapter 5

Floodplain and Floodway Delineations

36.15.501 FLOODPLAIN AND FLOODWAY DELINEATION - DATA USED - HYDROLOGICAL CERTAINTY (1) All floodplain delineation studies, reports, maps, and water surface profiles used by the department and board to establish designated floodplains shall be based upon the base flood.

(2) Each floodplain delineation study arranged by the department will, insofar as time and funds permit, include a water surface profile showing the elevation of the base flood and a suggested designated floodway.

(3) The department and board will also utilize flood hazard maps and data provided by the U.S. department of housing and urban development or the federal emergency management agency for the national flood insurance program as a basis for establishing the designated floodplain. Such maps will delineate the boundaries of the base flood but will not generally include flood elevations or floodway data.

(4) Designated floodplains established for areas where flood elevations and/or floodway data are lacking shall be regulated in accordance with ARM 36.15.801.

(5) The designation of floodplains and floodways shall be based upon reasonable hydrological certainty. Flood hazard maps that do not include floodway data or base flood elevations constitute a rebuttable presumption of reasonable hydrological certainty.

(6) The designated floodplain boundary is based on base flood elevations. The mapped floodplain boundary may be used as a guide for determining whether property is within the designated floodplain, but the exact boundary shall be determined according to the base flood elevation. If the local administrator determines it is unclear whether property is in or out of the floodplain, the local administrator shall require the applicant to provide additional information which may include elevations obtained through a level survey performed by a professional engineer or register land surveyor. (History: Sec. 76-5-201, 76-5-202, and 76-5-208, MCA; ~ Sec. 76-5-201 and 76-5-202, MCA; NEW, Eff. 9/4/74; AMD, 1989 MAR p. 1665, Eff. 10/27/89.)

36.15.502 FLOODWAY DELINEATION (1) The delineations of a designated floodway shall be based on the channel of the water course or drainway and those portions of the adjoining floodplain which are reasonably required to carry the discharge of the base flood without cumulatively increasing the water surface more than one half foot.

36.15.503 DEPARTMENT OF NATURAL RESOURCES
AND CONSERVATION

(2) In areas having appreciable urban development on the floodplain, the outer boundary lines of the floodway may generally follow the riverward limits of development provided that:

(a) The calculated elevation of the base flood would not be increased more than 0.5 of a foot as a result of any adjustment to the floodway;

(b) Floodway lines are compatible with local land use plans; and,

(c) The flood fringe does not contain appreciable areas with flood velocities greater than 3 feet per second or flood depths greater than 3 feet.

(3) After delineation of a suggested designated floodway and prior to the public hearing to consider the floodway delineation, the department shall meet with local planning officials to consider possible adjustments due to land use considerations. No adjustments in floodway width or location may be made if the theoretical increase in flood heights would exceed 0.5 foot or if adjustments affect private property rights. (History: Sec. 76-5-201, 76-5-202, and 76-5-208, MCA; IMP, Sec. 76-5-201 and 76-5-202, MCA; NEW, Eff. 9/4/74; AMD, 1989 MAR p. 1665, Eff. 10/27/89.)

36.15.503 PUBLIC INPUT ON PROPOSED DESIGNATED FLOODPLAINS OR FLOODWAYS (1)

The department shall at least 3 weeks prior to any hearing held for the purpose of establishing a designated floodplain or floodway furnish the affected political subdivisions maps and other data showing the proposed designated floodplain or floodway together with a letter requesting the political subdivision to furnish any pertinent data on flood hazards.

(2) Notice of a hearing or order of the board establishing or altering designated floodplains and floodways shall be published once each week for three (3) consecutive weeks in a legal newspaper published or of general circulation in the area involved, the last publication of notice shall be not less than 10 days prior to the hearing or order by the board.

(3) The department shall also issue news releases at least 3 weeks prior to any hearing requesting the public to submit any available data concerning flood hazard, flood elevations, or the proposed designated floodplain or floodway boundaries. (History: Sec. 76-5-202 and 76-5-204, MCA; IMP, Sec. 76-5-201 through 76-5-204, MCA; NEW, Eff. 9/4/74; AMD, 1989 MAR p. 1665, Eff. 10/27/89.)

36.15.504 LOCAL GOVERNMENT ADJUSTMENTS TO PROPOSED FLOODWAY

DELINEATION (1) After the delineation of a suggested designated floodway by the department and prior to the public hearing to consider the floodway delineations, the department shall meet with local governmental and planning officials to consider possible adjustments due to local land use consideration.

(2) No adjustments in floodway width or location may be made, however, if such adjustments would theoretically increase flood heights beyond the permissible limits noted in ARM 36.15.502. (History: Sec. 76-5-208, MCA, Sec. 76-5-201 and Sec. 76-5-202, MCA; NEW, 9/4/74.)

36.15.505 ALTERATION OF FLOODPLAINS AND FLOODWAYS

(1) The board may alter a designated floodplain or designated floodway, after a public hearing, when sufficient data become available.

(a) When scientific or technical flood data shows that the base flood elevation was erroneously established and the designation of the floodplain boundary was therefore incorrect.

(b) When property has been raised to a level above the base flood elevation by suitable fill provided that:

(i) the filled area is contiguous to areas naturally above the base flood elevation and not within the designated floodplain;

(ii) the filled area is a minimum of 2 feet above the base flood elevation;

(iii) the fill is suitable material according to definition in ARM 36.15.101 and is not subject to settlement and has been compacted to 95 percent of the maximum density obtainable with the standard proctor test method of the American society for testing and materials (ASTM Standard D698) or equivalent;

(iv) no portion of the fill is within the floodway;

(v) the fill slope must not be steeper than 1 1/2 horizontal to 1 vertical unless substantiating data justifying a steeper slope is provided and adequate erosion protection is provided for fill slopes exposed to floodwaters. The erosion protection for fill slopes exposed to velocities of four feet per second and less may consist of vegetative cover consisting of grasses or similar undergrowth as approved by the permit issuing authority. Slopes exposed to velocities greater than four feet per second shall be protected by armoring with stone or rock slope protection;

(vi) compaction of earthen fill and erosion protection measures must be certified as meeting these criteria by a registered professional engineer;

DEPARTMENT OF NATURAL RESOURCES
AND CONSERVATION

- (vii) the fill does not increase the elevation of the base flood in areas of existing development.
- (c) when areas have been protected by a properly engineered flood protection project provided that:
- (i) dams are designed and operated for flood control purposes and constructed in accordance with acceptable safety standards and the Montana Dam Safety Act;
 - (ii) levees and floodwalls comply with ARM 36.15.606 and are publicly owned and maintained. Minimum freeboard above the base flood elevation shall be three feet with an additional foot 100 feet either side of a structure such as bridges. An additional 1/2 foot above the minimum is required at the upstream end of the levee, tapering to the minimum at the downstream end. The levee must be designed and constructed to offer base flood protection without human supplementation. Human intervention is only acceptable for the operation of closure structures such as gates or stop logs. A levee system designed for human operation of closures are acceptable provided that:
 - (A) adequate warning time exists for the operation of closures before floodwaters reach the base of the closure,
 - (B) the closure is an integral part of the system during operation,
 - (C) operation and maintenance of closure structures are responsibilities mandated by local regulation with periodic operation performed for testing and training purposes,
 - (D) a formal operation plan is available and capable of being implemented.
 - (iii) dams and levees must be designed by a registered professional engineer and flood protection certified as adequate to provide protection from the base flood;
 - (iv) floodway channels designed by a registered professional engineer may carry less than the discharge of the base flood provided that they do not increase the extent of flooding.
- (2) No alteration of a designated floodplain is required when property located within the flood fringe is naturally above the base flood elevation as proven by a certified elevation survey provided by a registered professional engineer or licensed land surveyor. (History: Sec. 76-5-204, MCA; IMP, Sec. 76-5-204, MCA; NEW, 1989 MAR p. 1665, Eff. 10/27/89.)

NEXT PAGE IS 36-309

Sub-Chapter 6

Designated Floodway Minimum Standards

36.15.601 USES ALLOWED WITHOUT PERMITS (1) The following open space uses shall be allowed without a permit anywhere within the designated floodway provided that they are not prohibited by any other ordinance or statute and provided that they do not require structures other than portable structures, fill, or permanent storage of materials or equipment:

- (a) agricultural uses;
- (b) industrial-commercial uses such as loading areas, parking areas, and emergency landing strips;
- (c) private and public recreational uses such as golf courses, driving ranges, archery ranges, picnic grounds, boatlaunching ramps, swimming areas, parks, wildlife management and natural areas, game farms, fish hatcheries, shooting preserves, target ranges, trap and skeet ranges, hunting and fishing areas, and hiking and horseback riding trails;
- (d) forestry, including processing of forest products with portable equipment; and
- (e) residential uses such as lawns, gardens, parking areas, and play areas.

(2) In addition to the uses specified in the preceding subsection, the following uses and their accessories do not in the judgment of the board endanger health or safety or cause increased flood heights and shall thus be allowed without a permit in the designated floodway:

- (a) irrigation and livestock supply wells provided that they are located at least 500 feet from domestic water supply wells; and
- (b) fences, except permanent fences crossing channels. (History: Sec. 76-5-208 and 76-5-406, MCA; IMP, Sec. 76-5-401, Sec. 76-5-405, and 76-5-406, MCA; NEW, Eff. 9/4/74; AMD, 1989 MAR p. 1665, Eff. 10/27/89.)

36.15.602 USES REQUIRING PERMITS In addition to the uses allowed under ARM 36.15.601, the following artificial obstructions may be permitted within the designated floodway subject to the issuance of a permit by the permit issuing authority under the conditions set forth in this rule and ARM 36.15.603 and 36.15.604:

- (1) excavation of material from pits or pools provided that:
 - (a) a buffer strip of undisturbed land of sufficient width to prevent flood flows from channeling into the excavation is left between the edge of the channel and the edge of the excavation;

DEPARTMENT OF NATURAL RESOURCES
AND CONSERVATION

- (b) the excavation meets all applicable laws and regulations of other local and state agencies; and
- (c) excavated material is stockpiled outside the designated floodway;
- (2) railroad, highway, and street stream crossings provided that the crossings are designated to offer minimal obstruction to flood flow;
- (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;
- (4) Buried or suspended utility transmission lines provided that:
 - (a) suspended utility transmission lines are designed such that the lowest point of the suspended line is at least 6 feet higher than the elevation of the base flood;
 - (b) towers and other appurtenant structures are designed and placed to withstand and offer minimal obstruction to flood flows; and
 - (c) utility transmission lines carrying toxic or flammable materials are buried to a depth at least twice the calculated maximum depth of scour for the base flood. The maximum depth of scour may be determined from any of the accepted hydraulic engineering methods, but the final calculated figure shall be subject to approval by the permit issuing authority;
- (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, or explosive materials shall not be permitted;
- (6) domestic water supply wells provided that:
 - (a) they are driven or drilled wells located on ground higher than surrounding ground to assure positive drainage from the well;
 - (b) well casings are watertight to a distance of at least 25 feet below the ground surface;
 - (c) water supply and electrical lines have a watertight seal where the lines enter the casing;
 - (d) all pumps and electrical lines and equipment are either of the submersible type or are adequately floodproofed; and

- (e) check valves are installed on main water lines at wells and at 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 health and environmental sciences;
- (8) Public or private campgrounds provided that:
 - (a) access roads require only limited fill and do not obstruct or divert flood waters; and,
 - (b) no dwellings or permanent mobile homes are allowed;
- (9) structures accessory to the uses permitted in this subsection such as boat docks, marinas, sheds, permanent fences crossing channels, picnic shelters and 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 structures will be constructed and placed so as to offer a minimal obstruction to flood flows;
 - (e) the structures will be firmly anchored to prevent flotation; and,
 - (f) service facilities within these structures such as electrical, heating, and plumbing facilities are floodproofed in accordance with ARM 36.15.901 through 36.15.903;
- (10) all other artificial obstructions not specifically listed in this subsection or in ARM 36.15.606, not allowed under ARM 36.15.601, and not prohibited under ARM 36.15.605. (History: Sec. 76-5-208, MCA; IMP, Sec. 76-5-404 through 765-406, MCA; NEW, Eff. 9/4/74; AMD, 1989 MAR p. 1665, Eff. 10/27/89.)

36.15.603 PERMITS FOR WATER DIVERSIONS (1) As provided in the Montana Water Use Act of 1973, sections 85-2-302 and 85-2-402, MCA, all new surface water diversions and changes in place of diversion after July 1, 1973, require permits or approval, respectively, from the department. Within designated floodways, the department shall review each proposed diversion and change in place of diversion to determine if flood flows may be affected.

(2) If it appears that a proposed diversion or change in place of diversion may significantly affect flood flows, the department may require the applicant to provide additional information and to apply for a permit with the permit issuing authority under Title 76, chapter 5, MCA, as amended.

(3) A permit under Title 76, Chapter 5, MCA, as amended, shall not be granted if in the judgment of the permit issuing authority:

36.15.604 DEPARTMENT OF NATURAL RESOURCES
AND CONSERVATION

- (a) the proposed diversion will increase the upstream elevation of the base flood a significant amount (0.5 of a foot or as otherwise determined by the permit issuing authority);
- (b) the proposed diversion is not designed and constructed to minimize potential erosion from a base flood; and,
- (c) any permanent diversion structure crossing the full width of the stream channel is not designed and constructed to safely withstand up to a base flood. (History: Sec. 76-5-208 MCA; **IMP**, Sec. 76-5-404 through 76-5-406, MCA; **NEW**, Eff. 9/4/74; **AMD**, 1989 MAR p. 1665, Eff. 10/27/89.)

36.15.604 MINIMUM CRITERIA FOR PERMITS 1) In addition to the requirements of ARM 36.15.602 and 36.150603, a permit shall not be approved for new construction, substantial improvement, or alteration of an artificial obstruction under this rule if it will increase the upstream elevation of the base flood 0.5 of a foot or as otherwise determined by the permit issuing authority or significantly increase flood velocities. (History: Sec. 76-5-208, MCA; **IMP** Sec. 76-5-404 through 76-5-406, MCA; **NEW**, Eff. 9/4/74; **AMD**, 1989 MAR p. 1665, Eff. 10/27/89.)

36.15.605 PROHIBITED USES (1) The following artificial obstructions are prohibited within the designated floodway except as allowed by permit under ARM 36.15.602 through 36O15.604 and ARM 36.15.606:

- (a) a building for living purposes or place of assembly or permanent use by human beings;
 - (b) a structure or excavation that will cause water to be diverted from the established floodway, cause erosion, obstruct the natural flow of water, or reduce the carrying capacity of the floodway;
 - (c) the construction or permanent storage of any object subject to floatation or movement during flood level periods.
- (2) The following artificial obstructions are also prohibited within the designated floodway:
- (a) mobile homes and manufactured homes;
 - (b) commercial buildings;
 - (c) solid and hazardous waste disposal and individual or multiple family sewage disposal systems;
 - (d) storage of toxic, flammable, hazardous, or explosive materials. (History: Sec. 76-5-208, MCA; **IMP**, Sec. 76-5-403 and 76-5-406, MCA; **NEW**, Eff. 9/4/74; **AMD**, 1989 MAR p. 1665, Eff. 10/27/89.)

36.15.606 PERMITS FOR FLOOD CONTROL WORKS (1) Since structural flood control works often significantly obstruct and affect floodway flow capacity, the following flood control measures shall be allowed within designated floodways subject to the issuance of a permit by the permit issuing authority and certification by a registered professional engineer of compliance with the conditions set forth in this rule:

- (a) Flood control levees and floodwalls if:
 - (i) the proposed levees and floodwalls are designed and constructed to safely convey the base flood;
 - (ii) the cumulative effect of the levees and floodwalls combined with allowable flood fringe encroachments does not increase the unobstructed elevation of the base flood more than 0.5 of a foot at any point;
 - (b) riprap, except that which is hand placed, if:
 - (i) the riprap is designed to withstand the base flood;
 - (ii) the riprap does not increase the elevation of the base flood;
 - (iii) the riprap will not increase erosion upstream, downstream, or across stream from the riprap site;
 - (c) channelization projects if they do not significantly increase the magnitude, velocity, or elevation of the flood;
 - (d) dams provided that:
 - (i) they are designed and constructed in accordance with approved safety standards, and the Montana Dam Safety Act;
 - (ii) they will not increase flood hazards downstream either through operational procedures or improper hydrologic design.
- (2) The permit issuing authority may establish either a lower or higher permissible increase in the elevation of the base flood than that established in subsection (1)(a)(ii) for individual levee projects based on consideration of the following criteria:
- (a) the proposed levees and floodwalls, except those to protect agricultural land only, are constructed at least 3 feet higher than the elevation of the base flood;
 - (b) the estimated cumulative effect of other reasonably anticipated future permissible uses;
 - (c) the type and amount of existing flood prone development in the affected area;
 - (d) no detrimental impact occurs to existing or foreseeable development. (History: Sec. 76-5-208, MCA; IMP, Sec. 76-5-404 through 76-5-406, MCA; NEW, Eff. 9/4/74; AMD, 1989 MAR p. 1665, Eff. 10/27/89.)

NEXT PAGE IS 36-319

Sub-Chapter 7

Flood Fringe Minimum Standards

36.15.701 ALLOWED USES (1) All uses allowed in the designated floodway without a permit under ARM 36.15.601 shall also be allowed without a permit in the flood fringe.

(a) 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 and environmental sciences or the local health board.

(2) All uses allowed in the designated floodway subject to the issuance of a permit under ARM 36.15.602 through 36.15.604 and ARM 36.15.606 shall also be allowed in the flood fringe subject to the issuance of a permit.

(3) In addition, structures including, but not limited to residential, commercial, and industrial structures, and suitable fill shall be allowed by permit from the permit issuing authority within the flood fringe subject to the following conditions and the requirements of ARM 36.15.702 and 36.15.901 through 36.15.903:

(a) Such structures or fill must not be prohibited by any other statute, regulation, ordinance, or resolution;

(b) Such structures or fill must be compatible with local comprehensive plans, if any;

(c) 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 facilities shall be located 2 feet above the elevation of the base flood;

(d) Public or private structures and facilities for liquid or solid waste treatment and disposal must be floodproofed to insure that no pollutants enter flood waters. These facilities must be allowed and approved under laws and standards administered by the department of health and environmental sciences prior to any approval given by the permit issuing authority; and

(e) Agricultural structures that have a low flood damage potential such as sheds, barns, shelters, and hay and grain storage structures must meet the requirements of ARM 36.15.602 ~9). (History: Sec. 76-5-208, MCA; IMP, Sec. 76-5-402, 76-5-404 through 76-5-406, MCA; NEW, Eff. 9/4/74; AND, 1989 MAR p. 1665, Eff. 10/27/89.)

36.15.702 FLOOD PROOFING FOR RESIDENTIAL INDUSTRIAL STRUCTURES (1) The new construction, substantial improvement, and alteration of residential structures shall meet the following conditions:

36.15.702 DEPARTMENT OF NATURAL RESOURCES
AND CONSERVATION

(a) Residential structures shall be constructed on suitable fill with a permanent foundation such that the lowest floor (including basement) level is 2 or more feet above the base flood elevation. The suitable fill shall be at a level no lower than the base flood elevation extending 15 feet at that elevation beyond the structure in all directions. Where existing streets, utilities, lot dimensions, or additions onto existing structures, make strict compliance with this provision impossible, the permit issuing authority may authorize a lesser amount of fill or alternative flood proofing measures. Alternative flood proofing measures must, at a minimum, meet the conditions of ARM 36.15.702 and ARM 36.15.901 through 36.15.903.

(i) The new placement of manufactured and mobile homes must be elevated on fill with a permanent foundation as prescribed for residential structures.

(ii) Replacement manufactured and mobile homes in an existing mobile home park or subdivision may, instead of using suitable fill, be elevated on a concrete or mortared block foundation, or other suitable permanent foundation, and anchored to prevent flotation or downstream movement.

(2) The new construction, substantial improvement, and alteration of commercial and industrial structures shall be elevated on fill as prescribed for residential structures in ARM 36.15.702(1) or flood proofed to a level no lower than 2 feet above the base flood elevation. Flood proofing shall be accomplished in accordance with ARM 36.15.901 through 36.15.903 and shall further include the following:

(a) If the structure is designed to allow internal flooding of the lowest floor, use of the floor shall be limited to such uses as parking, loading areas, and storage of equipment or materials not appreciably affected by flood water. Further, the floors and walls shall be designed and constructed of materials resistant to flooding up to an elevation of 2 or more feet above the elevation of the base flood. Structures designed to allow internal flooding shall be designed to equalize hydrostatic flood forces on exterior walls by allowing for the exit and entry of flood waters.

(b) Structures whose lowest floors are used for purposes other than parking, loading or storage of materials resistant to flooding shall be flood proofed up to an elevation no lower than 2 feet above the elevation of the base flood. 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 pressures and hydrodynamic forces resulting from the base flood.

(c) The new construction, substantial improvement and alteration of commercial or industrial structures floodproofed according to these requirements must be designed and flood proofing measures certified as adequate by a registered professional engineer or architect. (History: Sec. 76-5-208, MCA; IMP, Sec. 76-5-404 through 76-5-406, MCA; NEW, Eff. 9/4/74; AMD, 1989 MAR p. 1665, Effo 10/27/89.)

36.15.703 PROHIBITED USES The following artificial obstructions and nonconforming uses are prohibited within the flood fringe:

- (1) solid and hazardous waste disposal; and
- (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 2 feet above the elevation of the base flood and anchored to a permanent foundation that is properly anchored to the ground. (History: Sec. 76-5-208, MCA; IMP, Sec. 76-5-404 through 76-5-406, MCA; NEW, Eff. 9/4/74; AMD, 1989 MAR p. 1665, Eff. 10/27/89.)

NEXT PAGE IS 36-327

Sub-Chapter 8

Designated Floodplain Only Minimum Standards

36.15.801 ALLOWED USES WHERE FLOODWAY NOT DESIGNATED OR NO FLOOD ELEVATIONS (1) For those watercourses or drainways in which there is a designated floodplain but not a designated floodway or where no flood elevations are available, all uses allowed in a designated floodway under ARM 36.15.601 without a permit shall also be allowed without a permit in such designated floodplain.

(2) All other uses within the designated floodplain shall require permits from the permit issuing authority. The following conditions insofar as each is applicable shall be attached to each permit approval:

(a) If the elevation of the base flood is available, residential structures must be built on compacted fill as specified in ARM 36.15.702(1). If such elevation is not available, the highest known historical flood elevation may be used to establish fill heights;

(b) If the elevation of the base flood is available, commercial and industrial structures must meet the flood proofing requirements set forth in ARM 36.15.702 (2). If such elevation is not available, the highest known historical flood elevation may be used to establish flood proofing heights;

(c) Proposed structures must be anchored to prevent flotation or collapse and must be located as far from stream channels as is practicable; and

(d) Sanitary sewage systems must be allowed and approved under laws and standards administered by the department of health and environmental sciences or the local health board.

(3) Where a proposed development within such designated floodplain may significantly increase flood velocities or depths, the permit issuing authority may require a permit applicant to furnish additional hydraulic and survey information before acting upon the permit application. This information may include, but is not limited to, any of the following:

(a) valley cross sections of the watercourse and adjoining floodplain;

(b) certification by a qualified professional engineer that floodproofing measures are reasonably adequate to protect against major flood damages; or

(c) a hydrologic study documenting probable effect on upstream or downstream property owners.

36.15.801 DEPARTMENT OF NATURAL RESOURCES
AND CONSERVATION

(4) Permit~ for such proposed developments may be modified or denied if the additional information shows that proposals would increase flood damages to other properties or would cause a threat to the health or safety of its occupants. (History: Sec. 76-5-208, MCA; **IMP**, Sec. 76-5-402, 76-5-404 through 76-5-406, MCA; **NEW**, Eff. 9/4/74; **AMD**, 1989 MAR p. 1665, Eff. 10/27/8g.)

NEXT PAGE IS 36-331

36-328 12/31/89

ADMINISTRATIVE RULES OF MONTANA

Sub-Chapter 9

Flood Proofing Requirements

36.15.901 FLOOD PROOFING REQUIREMENTS FOR ELECTRICAL SYSTEMS (1) All electrical service materials, equipment, and installation for uses permitted with or without a permit in a designated floodplain or floodway shall conform to the following conditions:

(a) 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 2 feet above the elevation of the base flood;

(b) Portable or movable electrical equipment may be placed below the elevation of the base flood provided that the equipment can be disconnected by a single plug-and-socket assembly of the submersible type;

(c) 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 designated floodplain and above the elevation of the base flood; and

(d) All electrical wiring systems installed below the elevation of the base flood shall be suitable for continuous submergence and may not contain fibrous components. (History: Sec. 76-5-208, MCA; IMP, Sec. 76-5-401 through 76-5-402, and Sec. 76-5-404 through 76-5-406, MCA; NEW, Eff. 9/4/74; AMD, 1989 MAR p. 1665, Eff. 10/27/89.)

36.15.902 FLOODPROOFING REQUIREMENTS FOR HEATING SYSTEMS

(1) Heating systems for allowed and permitted floodplain and floodway uses shall conform to the following conditions:

(a) Float operated automatic control valves must be installed in supply lines to gas furnaces so that the fuel supply is automatically shut off when flood waters reach the floor level where the furnaces are located;

(b) Manually operated gate valves that can be operated from a location above the elevation of the base flood shall also be provided in gas supply lines; and

(c) Electric heating systems must be installed in accordance with ARM 36.15.901. (History: Sec. 76-5-208, MCA; IMP, Sec. 76-5-401 through 76-5-402, and Sec. 76-5-404 through 76-5-406, MCA; NEW, Eff. 9/4/74; AMD, 1989 MAR p. 1665, Eff. 10/27/89-)

36.15.903 FLOOD PROOFING REQUIREMENTS FOR PLUMBING SYSTEMS (1) Plumbing systems for allowed and permitted floodplain and floodway uses shall conform to the following conditions:

(a) Sewer lines, except those to buried and sealed

36.15.903 DEPARTMENT OF NATURAL RESOURCES
AND CONSERVATION

vaults, must have check valves installed to prevent sewage backup into permitted structures; and
(b) All toilet stools, sinks, urinals, and drains must be located such that the lowest point of possible water entry is at least 2 feet above the elevation of the base flood. (History: Sec. 76-5-208, MCA; ~~IMP~~, Sec. 76-5-401 through 76-5-402, and Sec. 76-5-404 through 76-5-406, MCA; ~~NEW~~, Eff. 9/4/74; ~~AMD~~, 1989 MAR p. 1665, Eff. 10/27/89.)

NEXT PAGE IS 36-335

36-332 12/31/89

ADMINISTRATIVE RULES OF MONTANA