

# INTRODUCTION TO STREAM PERMITTING

Permitting is a critical consideration when planning and designing a project. Permits help ensure that laws intended to protect stream, riparian, and floodplain resources are followed. Acquiring permits can be confusing, time consuming, and potentially costly. Depending on the location and size of project, both 404 permitting and floodplain permitting can be especially challenging. Planning for projects requiring these permits should be completed well in advance of project implementation.

It is important to involve all agencies with permitting authority early in the process to ensure that projects can be implemented as efficiently and effectively as possible. This section will address several key questions including:

- *Do I need a permit for my project?*
- *What permits will I need?*
- *How do I apply for those permits?*

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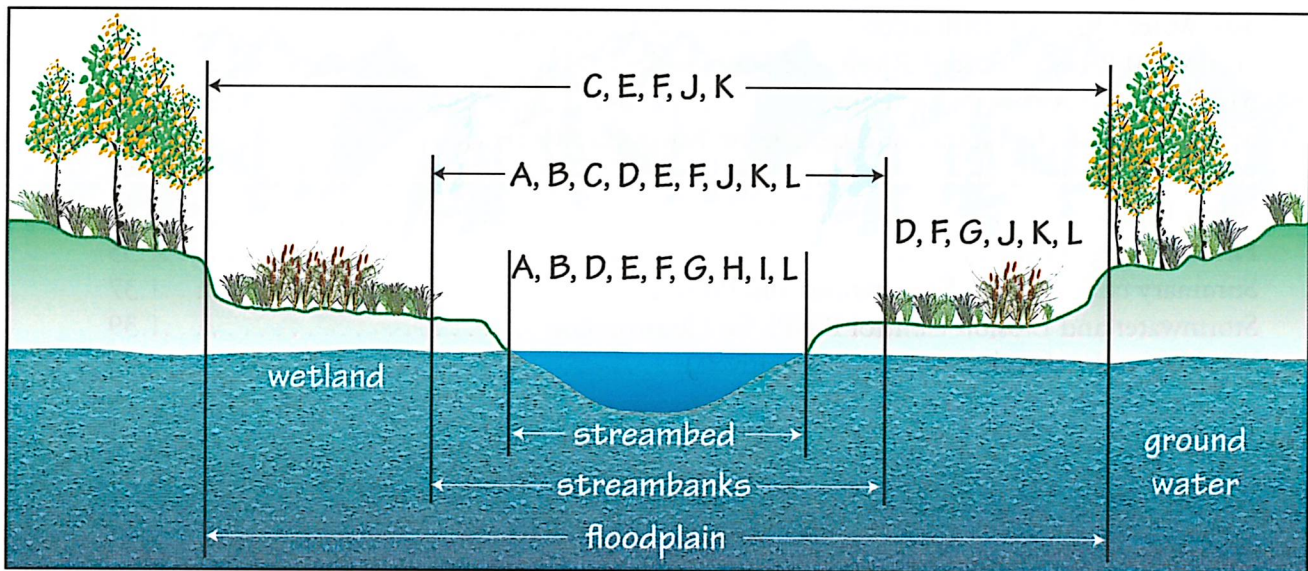
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## A GUIDE TO STREAM PERMITTING IN MONTANA

A Guide to Stream Permitting in Montana (flipbook) provides additional information on various permits required for working in and around Montana's streams and rivers. The brief descriptions of these permits (pages 1.2 - 1.5) follow the same order as that flip book and the joint application form. Remainder of this chapter provides more detailed information about these permits.

The diagram below outlines the area of jurisdiction for each of these laws and associated permits:

- A. Montana Natural Streambed and Land Preservation Act (310 Permit)
- B. Montana Stream Protection Act (SPA 124 Permit)
- C. Montana Floodplain and Floodway Management Act (Floodplain Development Permit)
- D. Federal Clean Water Act (404 Permit)
- E. Federal Rivers and Harbors Act (Section 10 Permit)
- F. Short Term Water Quality Standard for Turbidity (318 Authorization)
- G. Montana Land Use License or Easement on Navigable Waters
- H. Montana Water Use Act (Water Right Permit and Change Authorization)
- I. Montana Water Use Act (Water Reservations)
- J. Storm Water Discharge Permit Authorization
- K. Streamside Management Zone Law
- L. Other Laws That May Apply



*NOTE: The above graphic is only meant as a guide, please consult the permit descriptions to determine which permits are needed.*

## PERMITTING

Permits that may be applicable to projects affecting streambed, streambanks, or floodplain areas include:

- Montana Streambed and Land Preservation Act (310 Permit)
- Short-Term Turbidity (318 Permit)
- Federal Clean Water Act (404 Permit)
- Floodplain Development Permit
- Fish Stocking Permit
- Water Rights Permitting
- Montana Point Discharge Elimination System (MPDES) Stormwater Permit
- Montana Land-use License or Easement on Navigable Waters
- State Streamside Management Zone Law (SMZ)
- Montana Stream Protection Act (124 Permit)
- Section 10 Rivers and Harbors Act

These permits have similar information requirements. Fees vary depending on the permit and agency. An electronic version of the joint permit application is available online from most agencies.

Detailed information on individual permits is found in *A Guide to Stream Permitting in Montana* available from the **Montana Association of Conservation Districts, 1101 11th Avenue, Helena, Montana 59601**. This guide is also available online at [www.dnrc.mt.gov](http://www.dnrc.mt.gov).

If your project requires other permits besides a 310 Permit, it is your responsibility to contact the appropriate agency and submit the application to them.

### Montana Streambed and Land Preservation Act (310 Permit)

This permit is required by any private, non-governmental person or entity that proposes to work in or near a stream on public or private land. The permit is necessary for any activity that physically alters or modifies the bed or banks of a perennially flowing stream.

**Contact: Local Conservation District  
OR**

**Conservation Districts Bureau  
Dept. of Natural Resources & Conservation  
1539 11th Ave, P.O. Box 201601  
Helena, Montana 59620-1601  
Phone: (406) 444-6667**

### Montana Stream Protection Act (124 Permit)

This permit is required by any state, county, or municipal agency, and the U.S. Bureau of Land Management and U.S. Forest Service, that proposes a project requiring alteration of the bed or banks of any stream, perennial or otherwise.

**Contact: Local Office of Montana Fish,  
Wildlife & Parks  
OR**

**Fish Management Bureau, Fisheries Division  
Montana Fish, Wildlife and Parks  
1420 E. 6th Ave, P.O. Box 200701  
Helena, MT 59620-0701  
(406) 444-2449**

PERMITTING (continued)

## Montana Floodplain and Floodway Management Act (Floodplain Development Permit)

This permit is required for anyone planning new construction within a designated 100-year floodplain. Check with your local planning office to determine whether a 100-year floodplain has been designated for the stream of interest.

Projects that have the potential to alter the mapped 100-year flood elevation may require extensive hydraulic analysis and permit review. Details are found in the subsequent sections.

**Montana Department of Natural Resources and Conservation**  
48 North Last Chance Gulch  
P.O. Box 201601  
Helena, Montana 59620-1601  
Phone: (406) 444-6654, or (406) 444-6610

## Federal Clean Water Act (404 Permit)

This permit is required by any person, agency, or entity, either public or private, proposing a project that will result in the discharge or placement of dredged or fill material into waters of the United States. *Waters of the United States* includes lakes, rivers, streams (including intermittent), wetlands, and other aquatic sites. Stream and wetland work may require mitigation of impacts, including the Montana Stream Mitigation Procedure (MSMP).

**U.S. Army Corps of Engineers (USACE)**  
Montana Regulatory Office  
10 West 15th Street, Suite 2200  
Helena, Montana 59626  
Phone: (406) 441-1375

## Section 10 Rivers and Harbors Act

This permit is required for construction of any structure in, under, or over a federally listed navigable water of the United States, the excavation or deposition of material in such waters, or the accomplishment of any other work affecting the course, location, condition, or capacity of such waters. Navigable waters in Montana are the Missouri River downstream of Three Forks, the Yellowstone River downstream of Emigrant, and the Kootenai River from the Canadian border downstream to Jennings, Montana.

**U.S. Army Corps of Engineers (USACE)**  
Montana Regulatory Office  
10 West 15th Street, Suite 2200  
Helena, Montana 59626  
Phone: (406) 441-1375

## Short-term Turbidity (318 Permit)

This permit is required for any person, agency, or entity, either public and private, initiating a short-term activity that may cause unavoidable short-term violations of state surface water quality standards. The major application of this law is related to sediments and turbidity caused by construction or other activities.

**Water Protection Bureau**  
Water Quality Division  
Department of Environmental Quality  
1520 E. Sixth Avenue, P.O. Box 200901  
Helena, Montana 59620-0901  
Phone: (406) 444-3080

*PERMITTING (continued)***401 Water Quality Certification - Dredge & Fill**

States and Tribes make their decisions to deny, certify, or condition permits or licenses primarily by ensuring the activity will comply with state water quality standards. In addition, states and tribes look at whether the activity will violate effluent limitations, new source performance standards, toxic pollutants, and other water resource requirements of state/tribal law or regulation. The Section 401 review allows for better consideration of state-specific concerns.

**Department of Environmental Quality  
Water Quality Division  
Water Protection Bureau  
1520 E. Sixth Avenue, P.O. Box 200901  
Helena, Montana 59620-0901  
Phone: (406) 444-3080**

**Montana Land-use License or Easement on Navigable Waters**

This permit is required for any entity proposing a project on lands below the low water mark of navigable waters.

**DNRC Land Office or  
Special Use Management Bureau  
Montana Department of Natural  
Resources and Conservation  
1539 11th Ave, P.O. Box 201601  
Phone: (406) 444-7431**

**Other permits may be required for stream projects but are not included in the Joint Application form. These include:**

**Montana Water Use Act (Water Right Permit and Change Authorization)**

Diversion, appropriation, and beneficial use of surface and ground water in Montana requires a valid water right. New appropriations or changes in existing water rights require an application to be filed with the DNRC. Changes to existing rights may include alterations in place of use or point of diversion. Conversion of an existing water right from one use to another (e.g., irrigation to fish pond) require a change application. Certain uses are exempt from new appropriation, such as small, individual wells. Be sure to consult with DNRC before using new water or changing existing water rights/uses.

**Montana Department of Natural  
Resources and Conservation  
Water Rights Bureau  
1424 9th Ave, P.O. Box 201601  
Helena, Montana 59620-1601**

**Civil Works (Section 408)**

Section 408 provides that USACE may grant permission for another party to alter a Civil Works project upon a determination that the alteration proposed will not be injurious to the public interest and will not impair the usefulness of the Civil Works project. USACE has established the following policy and procedures for implementing Section 408.

**U.S. Army Corps of Engineers (USACE)  
Montana Regulatory Office  
10 West 15th Street, Suite 2200  
Helena, Montana 59626  
Phone: (406) 441-1375**

*PERMITTING (continued)*

## Montana Pollution Discharge Elimination System (MPDES) Stormwater Permit

This permit is required for any person, agency, or entity proposing construction, industrial, or mining activity that will discharge stormwater to Montana waters and construction that will disturb more than one acre within 100 feet of streams, rivers, or lakes. Construction dewatering is also covered by MPDES permitting.

**Department of Environmental Quality  
Water Quality Division  
Water Protection Bureau  
1520 E. Sixth Avenue, P.O. Box 200901  
Helena, Montana 59620-0901  
Phone: (406) 444-3080**

## Streamside Management Zone Law (SMZ)

This permit is required for any landowner or operator conducting forest practices that will access, harvest, or regenerate trees on a defined land area for commercial purposes on private, state, or federal lands.

**Montana Department of Natural Resources and Conservation  
Forestry Division  
2705 Spurgin Road  
Missoual, Montana 59801**

## Fish Stocking Permit

Fish stocking of a private pond may legally be undertaken only after a Non-Commercial Private Fish Pond License has been issued by Montana Fish, Wildlife & Parks (MFWP).

If a pond meets certain requirements, the owner of the pond may qualify for a fish stocking license. This allows the pond owner to “stock the fish pond with” approved fish species “procured from any lawful source” and to “take fish from the lake or pond in any manner.” State fishing regulations and licenses are not required to take fish from a private pond.

**Montana Fish, Wildlife & Parks  
P.O. Box 200701, 1420 East Sixth Avenue  
Helena, Montana 59620-0701  
Phone: (406) 444-2535**

## Tribal Aquatic Permits

Conducting work in streams, rivers, lakes or wetlands within a Reservation generally requires a permit issued by the environmental office of the Tribe. Examples of these include the Shoreline Protection Act 64A application (Confederated Salish and Kootenai Tribes of the Flathead Nation), and the Aquatic Lands Protection Ordinance 90-A (Blackfeet Nation). Each Tribe has its own process and requirements, and should be consulted directly for specifics. In general, Tribal permitting requirements mirror state and federal permits.

## 310 PERMIT

### Projects on Perennial Streams

The 310 permit applies to the bed and banks of perennial streams and is intended to protect the natural function of streams and rivers. Proposed projects are reviewed by Conservation District staff and Montana Fish, Wildlife & Parks (MFWP).

#### Application Process

A Joint Application along with a plan, details of the proposed project and a site map must be provided. The Joint Application is available online, or from the Conservation District office. Applications are reviewed and accepted at monthly Conservation District meetings, and must be submitted one week in advance of the meeting to be considered. After a project is accepted, MFWP is notified of the proposed project and may request an on-site inspection.

#### Site Inspection

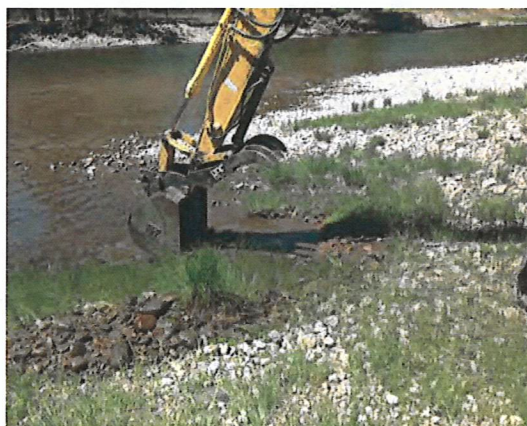
A team consisting of a District representative, a MFWP representative and the landowner or landowner's representative will meet to discuss the project on site. This is an opportunity for the applicant to present the project, discuss options, and give and receive feedback from the District team members and MFWP staff. Following the inspection, team members make recommendations to the District at a regular meeting.

#### Decision Making

The District Board will decide whether to approve, modify, or deny the project within 60 days of acceptance of the application. However, this time period can be extended if the District determines it necessary to collect further information. After receiving the Conservation District Board's decision, the applicant has 15 days to return the permit, signed to indicate agreement with the District's decision. Unless otherwise stated on the supervisor's decision form, the applicant must wait 15 days before proceeding with the project unless the Board waves this waiting period.



*Replacement or maintenance of irrigation structures are common 310 projects.*



*Any modification of the bed or banks of a perennial stream requires review under 310.*



*Projects to stabilize eroding streambanks require a 310 permit.*

## 310 PERMITTING REVIEW CONSIDERATIONS

### The Conservation District's Review

By Montana Statute, the Conservation District is required to consider the following factors in a 310 permit application:

#### *Erosion and Sedimentation*

Review of the potential effects of the project on erosion and sedimentation, considering the methods available to complete the project and nature and economics of various alternatives.

#### *Stream Channel Alteration*

Review of the effects of stream channel alterations to minimize adverse impacts and maintain the integrity and function of the natural channel.

#### *Streamflow, Turbidity and Water Quality*

Projects must keep impacts to water quality to a minimum, including potential effects of project materials used or removal of ground cover.

#### *Effects on Fish and Aquatic Habitat*

Projects must minimize adverse effects to fish and aquatic habitat. This includes criteria such as fish passage and bank/streambed alterations that impair resource values.

#### *Avoid Harmful Flooding or Erosion*

The project must avoid creating harmful flooding or erosion upstream or downstream.

#### *Minimize Vegetation Disturbance, Protect Existing Vegetation, Control Weeds*

Projects should seek to preserve, establish, or enhance native vegetation on the banks and floodplain.

The District will consider whether there are modifications or alternative solutions that are reasonably practical that would reduce disturbance to the stream and its environment and better accomplish the goals of the project.



*Conservation District staff perform field reviews of proposed projects, along with a representative from MFWP.*

## SPA 124 PERMIT

### What is this?

The SPA 124 Permit is a result of the passing of the Stream Protection Act of 1963. Originally, it was primarily for road construction projects. The SPA 124 permit is very similar to the 310 Permit but is for Government agencies as opposed to private parties. It also applies to all streams, not just perennial streams. The purpose of this permit is to maintain streams and rivers in their natural existing state and to protect and preserve fish and wildlife resources.

### Application Process

The Joint Application (same form as 310 permitting) is submitted to MTFWP in Helena. The application should be submitted no less than 60 days before the intended date of construction. MTFWP has up to 30 days to review the application, perform an on-site investigation, and approve, modify, or deny the application. There is no application fee.



# 310 TEAM MEMBER REPORT

Form 272 (Rev. 06/01/06) (filename 27206)

**STATE OF MONTANA  
NATURAL STREAMBED AND LAND  
PRESERVATION ACT (310 LAW)**

Application No. \_\_\_\_\_  
Date Submitted to District \_\_\_\_\_

**TEAM MEMBER REPORT**

1. Applicant \_\_\_\_\_  
Name of perennial stream \_\_\_\_\_ County \_\_\_\_\_  
Location of proposed activity \_\_\_\_ • \_\_\_\_ • \_\_\_\_, Section \_\_\_\_\_ Township \_\_\_\_\_ Range \_\_\_\_\_

2. Onsite inspection at \_\_\_\_\_ on \_\_\_\_\_ at \_\_\_\_\_.  
(location) (date) (time)

3. Review considerations:	Insignificant		Moderate		Significant		N/A
(a) effects of soil erosion and sedimentation:	<input type="checkbox"/>	•	<input type="checkbox"/>	•	<input type="checkbox"/>	•	<input type="checkbox"/>
(b) risk of flooding or erosion problems upstream or down:	<input type="checkbox"/>	•	<input type="checkbox"/>	•	<input type="checkbox"/>	•	<input type="checkbox"/>
(c) effects of stream channel alterations:	<input type="checkbox"/>	•	<input type="checkbox"/>	•	<input type="checkbox"/>	•	<input type="checkbox"/>
(d) effects on streamflow, turbidity, or water quality caused by materials used or by removal of ground cover:	<input type="checkbox"/>	•	<input type="checkbox"/>	•	<input type="checkbox"/>	•	<input type="checkbox"/>
(e) effects on fish and aquatic habitat:	<input type="checkbox"/>	•	<input type="checkbox"/>	•	<input type="checkbox"/>	•	<input type="checkbox"/>
(f) are there reasonable alternatives to reduce disturbance to stream or better accomplish the purpose of the project?	<input type="checkbox"/> • yes (see below)		<input type="checkbox"/> • no				

4. Recommendation:

Approval as proposed     Approval with modifications     Denial     Request for time extension

5. Modifications/Comments:

• See attached (if more room is necessary)

6. Signature of Team Member(s)

\_\_\_\_\_  
Name/Representing    • Waive 15-day waiting period after board's decision    Date \_\_\_\_\_

\_\_\_\_\_  
Name/Representing    • Waive 15-day waiting period after board's decision    Date \_\_\_\_\_

\_\_\_\_\_  
Name/Representing    • Waive 15-day waiting period after board's decision    Date \_\_\_\_\_

## DENYING A 310 PERMIT APPLICATION

The 310 law requires a conservation district to determine 1) the purpose of the project – this is usually straight forward, but sometimes it isn't; and 2) whether the project is a reasonable means of accomplishing the purpose of the project. (75-7-112(9))

In order to determine if the project is reasonable, the applicant has to provide enough information for the board to make a determination. The factors that supervisors review are outlined in the law. They are: (75-7-112 (9)(i) through (vi)).

- i. The effects on soil erosion and sedimentation, considering the methods available to complete the project and the nature and economics of the various alternatives;
- ii. Whether there are modifications or alternative solutions that are reasonably practical that would reduce the disturbance to the stream and its environment and better accomplish the purpose of the proposed project;
- iii. Whether the proposed project will create harmful flooding or erosion problems upstream and downstream;
- iv. The effects on stream channel alteration;
- v. The effects on streamflow, turbidity, and water quality caused by materials used by or removal of ground cover; and
- vi. The effects on fish and aquatic habitat.

The supervisors may not approve or modify a proposed project unless the supervisors determine that the purpose of the proposed project will be accomplished by a reasonable means. (75-5-112 (11))

The applicant must provide supervisors with the above information and the team inspection report includes these factors on the form. There are other factors that are included the rules, which are included on an expanded team report that a few CDs use when needed.

The team report has check boxes to evaluate using a scale of no impact to significant impact (some are yes or no). If the board determines that a project is not reasonable, it should be based on these factors. Any project that falls in the significant impact range of any of these factors would probably be denied. It may also be denied if too many of the factors have moderate impacts that could be mitigated. The applicant then has the choice to reapply addressing the board's concerns, or to agree to modifications that will reduce the impacts.

# FLOODPLAIN DEVELOPMENT PERMITS

Projects located in a Federal Emergency Management Agency (FEMA) regulatory floodplain must receive a floodplain permit before proceeding to construction. The floodplain development permit embodies regulations developed by FEMA and DNRC, which are administered by local governments. Local ordinances and requirements vary, so applicants will need to work with their local floodplain manager to determine individual requirements based on their proposed project.

## Floodplain Mapping

Many rivers and streams have designated Flood Insurance Rate Maps (FIRMs) that define the regulatory floodplain. The digital form (DFIRM) is available online from the FEMA flood map service center and some county websites. Floodplain mapping defines the Regulatory Flood Hazard Areas associated with the 100 year flood. These areas are broadly grouped into floodway (typically deeper flow in or adjoining main channel) or flood fringe (shallower flow or inundated areas). In areas with detailed flood studies, the mapping defines Base Flood Elevations (BFEs) and delineates various regulatory zones (e.g., Zone A, AE, AO, X) within the floodplain. Some waterways have less detailed regulatory mapping, such as approximate Zone A designations.





## Floodplain Zones

Zoning in the floodplain determines what uses are prohibited, permitted, or exempt from certain floodplain permitting requirements. The Floodway (e.g., Zones A or AE) is most restrictive, and the shallower flood fringe (e.g., Zone AO) allows for more potential uses. Permitted uses within designated flood zones vary by jurisdiction. In general, areas in the floodway do not generally allow for permanent residential or non-residential buildings, development, modification of the floodplain topography that would adversely impact floodplain function, sanitary disposal, storage of hazardous materials or objects that could float or move during a 100-year flood.



Detailed floodplain studies define 100-year flood elevations and extents of inundation.

### LEGEND

-  SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD  
The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.
- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AD** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently derelict. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.
-  FLOODWAY AREAS IN ZONE AE  
The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.
-  OTHER FLOOD AREAS  
**ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
-  OTHER AREAS  
**ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.

Detailed studies define various zones within the floodway and the flood fringe.

**FLOODPLAIN DEVELOPMENT PERMITS** *(continued)****Flood Fringe***

Flood fringe areas allow for some development, improvement to existing structures, some types of new structures provided certain requirements are met. These involve specific requirements for flood-proofing, structure elevations, analysis of impacts to the bankfull elevation (BFE), and other analyses.

Local floodplain regulations must meet minimum standards to comply with FEMA requirements. Requirements vary by local, zoning designation, project specifics, and other site specific considerations. Vetting a project with your local floodplain administrator should be undertaken early in the process.

***Hydraulic Analyses***

Hydraulic analyses must demonstrate any expected change in base flood elevations, engineered stability criteria in a 100-yr flood, analysis of effects of erosion up or downstream, and various additional requirements involving flood safety.

This permit may require channel survey and hydraulic modeling for analysis of pre- and post-project base flood elevations, especially for larger projects. Changes in base flood elevations due to the project (even decreases in flood height) may need to be documented with FEMA through a Letter of Map Revision (LOMR).

**No-Rise Analysis**

A no-rise analysis is a hydraulic assessment of predicted effects of the proposed project on modeled 100-year flood elevations. This requires the development of the following models, in sequence:

***Current Effective Model:*** This existing hydraulic model is obtained from FEMA or your local Floodplain Administrator.

***Duplicate Effective Model:*** This original, current effective model is duplicated in contemporary hydraulics software, such as HEC-RAS.

***Corrected Effective Model:*** This model corrects any errors in the Duplicate Effective model, adds any additional cross sections, or incorporates more detailed topographic information than that used in the current effective model. The Corrected Effective model must not reflect any man-made physical changes since the date the effective model was completed.

***Existing or Pre-Project Conditions Model:*** Revises the Duplicate Effective or the Corrected Effective model to reflect any modifications that have occurred within the floodplain since the date of the Effective model but prior to the construction of the project.

***Proposed or Post-Project Conditions Model:*** Modify the Existing Condition to reflect revised or post-project conditions. The results of this analysis will demonstrate the 100-year elevation (BFE) for proposed conditions at the project site. These results must indicate NO impact (i.e., 0.00 ft) on the BFE when compared to the Existing Conditions or Pre-Project Conditions model. Typically, a Conditional Letter of Map Revision (CLOMR) and LOMR is necessary for a rise, but only a LOMR is needed for decreases or structure changes in a detailed floodplain (pending the discretion of the floodplain administrator).

**FLOODPLAIN DEVELOPMENT PERMITS (continued)**

**Many Flavors of the FEMA Process**

FEMA regulations administered by the local floodplain staff can entail a variety of permitting requirements. These may include: LOMA, LOMR, CLOMR, LOMR-F and others.

**LOMA**

A Letter of Map Amendment (LOMA) is an official amendment, by letter, to an effective National Flood Insurance Program (NFIP) map. A LOMA establishes a property's location in relation to the regulatory floodplain. LOMAs are usually issued because a property has been inadvertently mapped as being in the floodplain, but is actually on natural high ground above the base flood elevation.

**LOMR-F**

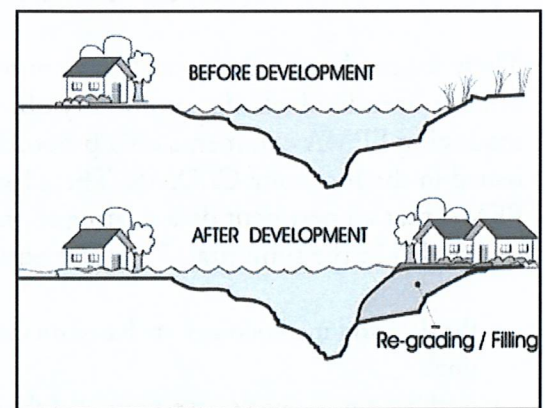
A Letter of Map Revision Based on Fill (LOMR-F) is FEMA's modification of the regulatory floodplain shown on the Flood Insurance Rate Map (FIRM) based on the placement of fill inside the existing regulatory floodway.

**CLOMR/LOMR**

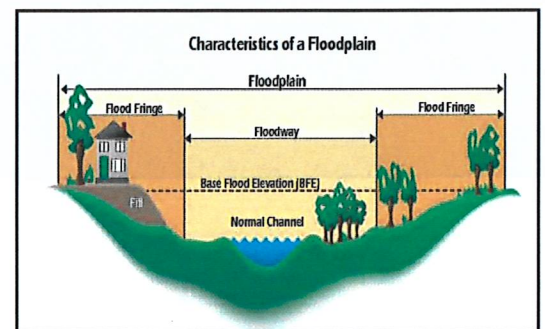
A Conditional Letter of Map Revision Based on Fill (CLOMR) is a proposed modification to the regulatory floodplain shown on the FIRM based modifications that alter the BFE or lateral extent of flooding. Examples would be projects that cause a predicted change in the BFE by more than 0.00 ft. Bridges, floodplain fill/excavation, irrigation diversions within the channel, and dikes/levees may require CLOMR/LOMR because they may affect the NFIP map. Decreases in the BFE may not require a CLOMR, but only a LOMR. Official floodplain extents and base flood elevations are public records the county/city must maintain for the community.



*Regulatory floodplains have been defined for many locations in Montana. New construction within the floodway or flood fringe is regulated.*



*Fill within the regulatory floodplain requires analysis to quantify potential impacts to flood elevations.*



*Some types of development may be allowable in the flood fringe with appropriate permitting.*

*FLOODPLAIN DEVELOPMENT PERMITS (continued)*

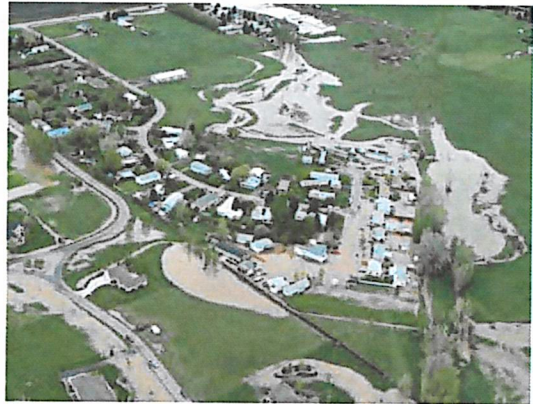
### MT-2 Application Forms

Conditional Letters of Map Revisions (CLOMR), Letter of Map Revision (LOMRs) and Physical Map Requests are submitted using a MT-2 application.

The application forms and instructions included in the MT-2 forms package were designed to assist requesters (community officials or individuals via community officials) in gathering the data that FEMA needs to determine whether the effective National Flood Insurance Program (NFIP) map (i.e., Flood Hazard Boundary Map, Flood Insurance Rate Map, Flood Boundary and Floodway Map or Digital Flood Insurance Rate Map) and Flood Insurance Study report for a community should be revised.

These forms also should be used by community officials or individuals via community officials for requesting FEMA comments on a proposed project issued in the form of a CLOMR. These forms assure FEMA that all pertinent data relating to the request is included in the submittal. They also ensure that:

- the data and methodology are based on current conditions
- qualified professionals have assembled the data and performed necessary computations
- the individuals and organizations affected by proposed changes are aware of the changes and have an opportunity to comment



*The FEMA permitting process is intended to provide protection to existing and future development. Potential changes to regulatory BFE must be carefully evaluated.*



*Evaluating complex channels in floodplains can be difficult even for professionals, and costly for the client.*

# CLOMR AND PERMITTING PROCESS FLOWCHART

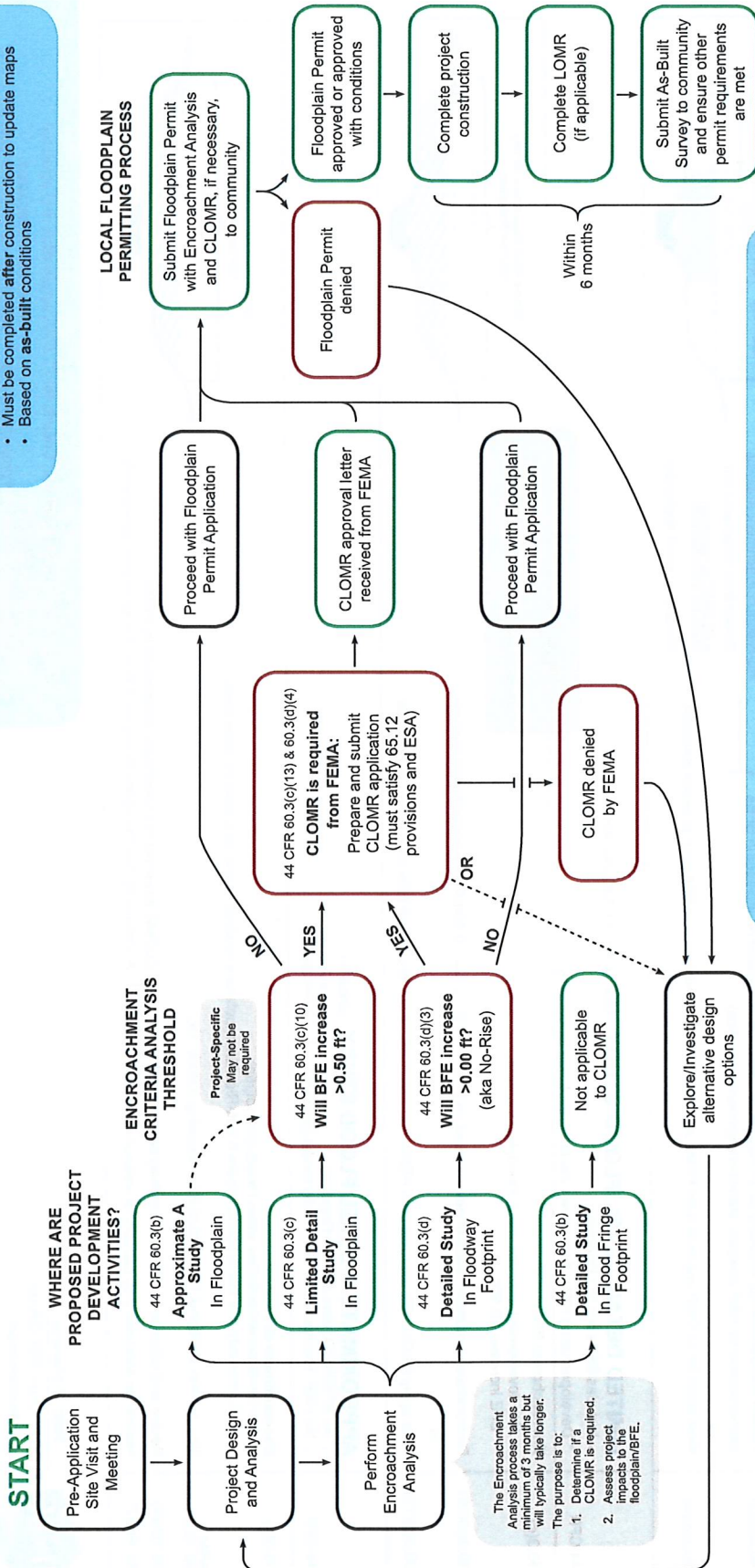
Coupling CLOMR and Encroachment Analysis Requirements with the Floodplain Permitting Process

**Conditional Letter of Map Revision (CLOMR)**

- Must be received prior to permit issuance
- Based on proposed design

**Letter of Map Revision (LOMR)**

- Must be completed after construction to update maps
- Based on as-built conditions



**44 CFR 65.12 Requirements: Criteria for CLOMR application and approval**

- Alternatives analysis
- Legal Notice to impacted property owners
- Signature of community
- No structures impacted
- Adopt in local ordinance upon approval
- Complete LOMR based on As-Built Survey



**ENCROACHMENT THRESHOLD CRITERIA**  
When No-Rise Analyses & CLOMRs are Required

These criteria are based on development impacts to the BFE, not the type of project, and are to be applied uniformly to all projects.

44 CFR	<p><b>DETAILED LEVEL FLOOD STUDY</b> (Zones AE, A1-A30, AO, AH, &amp; A)</p> <ul style="list-style-type: none"> <li>Includes Floodway</li> <li>Developed using H&amp;H, field survey, high-resolution topography</li> </ul>	<p><b>Encroachment threshold:</b></p> <ul style="list-style-type: none"> <li>For development activities within Floodway footprint } Doesn't apply in Flood Fringe area</li> <li>BFE increase <math>\leq 0.00ft</math></li> </ul>	<p><b>0.00ft <math>\geq</math> BFE increase &gt; 0.00ft</b> Okay, Proceed with floodplain permitting process.</p>	
60.3(d)	<p>Prohibit encroachments, including fill, in Floodway unless demonstrated no increase in BFEs (demonstrated by H&amp;H analysis, standard engineering practice).</p>	<p>or</p> <p>Must apply for CLOMR approval from FEMA and satisfy 65.12 provisions and ESA prior to permit issuance.</p>	<p>No-Rise/Encroachment Analysis</p> <ul style="list-style-type: none"> <li>Determines whether or not</li> <li>CLOMR is required.</li> <li>Must be included with floodplain permit application.</li> </ul>	
60.3(d)(3)				
60.3(d)(4)				
44 CFR	<p><b>LIMITED DETAIL LEVEL FLOOD STUDY</b> (Zones AE, A1-A30, AO, AH, &amp; A)</p> <ul style="list-style-type: none"> <li>Includes BFEs but NO Floodway</li> <li>Developed using H&amp;H, field survey, medium-resolution topography</li> </ul>	<p><b>Encroachment threshold:</b></p> <ul style="list-style-type: none"> <li>For development activities within Floodplain footprint</li> <li>BFE increase <math>\leq 0.50ft</math></li> </ul>	<p><b>0.50ft <math>\geq</math> BFE increase &gt; 0.50ft</b> Okay, Proceed with floodplain permitting process.</p>	
60.3(c)				
60.3(c)(10)	<p>Demonstrate cumulative effect of development on BFE &lt; 0.50ft</p>	<p>or</p> <p>Must apply for CLOMR approval from FEMA and satisfy 65.12 provisions and ESA prior to permit issuance.</p>		
60.3(c)(13)				
44 CFR	<p><b>APPROXIMATE A LEVEL FLOOD STUDY</b> (Zone A)</p> <ul style="list-style-type: none"> <li>No BFE/WSEL data and NO Floodway</li> <li>No H&amp;H, low-resolution topography model (typically) } Multiple vintages, now legacy</li> </ul>	<p><b>Encroachment threshold:</b></p> <ul style="list-style-type: none"> <li>For development activities within Floodplain footprint</li> <li>Community has the option to require 0.50ft-Rise/Encroachment Analysis (done on a case-by-case basis)</li> </ul>	<p><b>0.50ft-Rise/Encroachment Analysis</b></p>	
60.3(b)				
ARM 36.15.801(3)	<p>May request additional H&amp;H information, including a study, etc.</p>	<p>Review and utilize any BFE and Floodway data available.</p> <p>Assure the flood-carrying capacity of watercourse is maintained. } CLOMR threshold not specifically established by FEMA.</p>		
60.3(b)(4)				
60.3(b)(7)				



- 44 CFR 65.12 Requirements: Criteria for CLOMR application and approval**
- Alternatives analysis
  - Legal Notice to impacted property owners
  - Signature of community
  - No structures impacted
  - Adopt in local ordinance upon approval
  - Complete LOMR based on As-Built Survey



**FLOODPLAIN DEVELOPMENT PERMITS** *(continued)***Commonly Required Information**

The following overview provides an introduction to information commonly required for all floodplain permits. These requirements also apply more generally to state and federal permits conducted on streams and rivers in Montana.

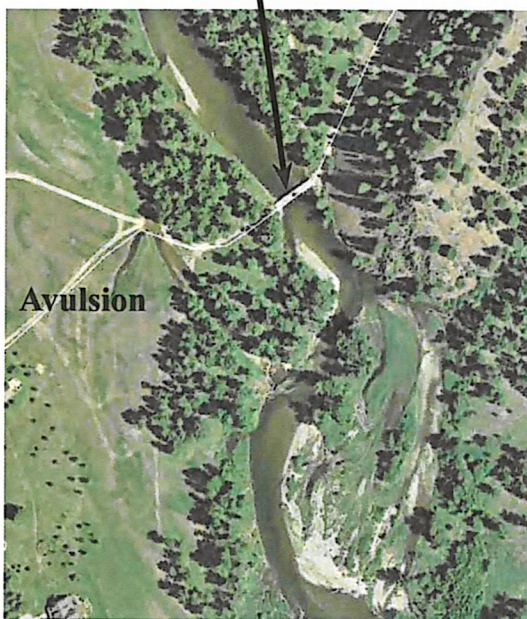
To initiate the floodplain permit process, you will need to submit a copy of the following information, according to your type of project. Many of these items are also a requirement of the Joint Application. These instructions apply to **all construction projects** within any designated 100-year floodplain as delineated on agency floodplain maps.

1. A list of adjacent property owners and their mailing addresses (You can get this information from the county or through a title company.)
2. A letter from each property owner where the project will be completed authorizing the proposed work
3. A detailed site plan, drawn to scale, showing the following:
  - Property boundary lines of the subject property and those in the immediate vicinity of the project
  - Approximate location of all floodplain boundaries in the vicinity of the project as depicted on the floodplain maps
  - Location of existing improvements in the vicinity of the project, including driveways, roads, culverts, bridges, buildings, wells, septic systems, and other improvements
  - Location of all existing physical features in the vicinity of the project, including ponds, swales, streams, and irrigation ditches
  - Location and dimensions of all proposed improvements, including driveways, roads, culverts, bridges, ponds, buildings, wells, and other structures
  - Location for all fill that will be brought into the floodplain
4. A statement specifying the amount of fill that will be placed within the floodplain and supporting calculations
5. For bank stabilization, submit:
  - Description of existing conditions
  - Historical overview of trends in the river movement, if any
  - Description of the problem
  - Description of the objectives of the project
  - Short description of design alternatives that were considered but rejected (if any), and an explanation of why each was rejected
  - Typical cross-section of the river from bank to bank (based on survey data), which shows the existing condition and proposed treatment and the height of the 100-year flood event (BFE), the base flow elevation, and the bank full elevation
  - Longitudinal profile of the river surface and bed in the project area
  - Plan view of the project (using an aerial photograph as a base), which shows the beginning and ending points of the various types of treatment
  - Specifications for the treatment material (type, size, quantities, etc.)

**FLOODPLAIN DEVELOPMENT PERMITS** (continued)

- Calculations to show the proposed project in an Approximate A Zone or AE Zone without a floodway will not raise the elevation of the 100-year flood (BFE) more than 0.5 feet above the published 100-year floodplain elevation as documented on the floodplain maps. In cases where the threshold is exceeded, the applicant may be required to apply for a Conditional Letter of Map Revision (CLOMR) from FEMA and should coordinate with the local Floodplain Administrator. (Please contact DNRC Helena to develop appropriate language for this statement.)
  - Description of the project implementation (project phases, sediment control, staging area, cleanup, etc.)
6. For a bridge, submit:
- Drawings and specifications for the bridge as certified by a professional engineer
  - Calculations for the amount of fill to be placed in the floodplain
  - A cross-section at the location of the bridge which shows the existing condition and the elevation of the 100-year flood event
7. For a pond, submit:
- Description of existing conditions
  - Description of the objectives of the project
  - Calculations for the amount of material to be removed from the pond
  - Description of where the material will be placed outside the floodplain
8. For a road, submit:
- Description of existing conditions
  - Description of the objectives of the project
  - Calculations to show the culverts will be large enough to handle the expected flows

**Bridge**



*Bridge crossings and channel modifications require extensive hydraulic analysis for floodplain permitting.*

**Bridge**



*A HEC-RAS 2D model was used to simulate pre- and post-project flood conditions and demonstrate that 100 year flood elevation was unaffected by the project.*

*FLOODPLAIN DEVELOPMENT PERMITS (continued)***Review Process**

All floodplain applications shall also include a definitive signed statement from a qualified engineer demonstrating:

- The project can withstand a 100-year flood
- The project will not adversely affect land owners upstream, downstream, across stream or adjacent to the proposed project area
- Analysis of what effect this proposed project will have on the 100-year BFE

Stream and bank restoration projects are frequently designed to be “deformable,” or having softer treatments, and may be specifically designed to enable dynamic, long-term channel adjustment. In other words, these projects may not meet traditional engineering stability criteria for a 100-year flood. These projects must be evaluated on a case-by-case basis by the local floodplain manager.

Once submitted, the application will be reviewed to make sure the information is sufficient. If it is not sufficient, the applicant will receive a letter that explains the deficiencies. As part of the review process, the adjoining property owners will be notified about the proposed work, and a legal notice placed in the paper containing a brief description of the application, with a 30 day public comment period. Additional requirements/processes are involved for fill activities or construction of roads or buildings within the floodplain.

Detailed information is published on the DNRC website. However, local floodplain managers will need to be consulted on requirements specific to your project. Application fees vary depending on county/city, as do time frames for approval. Plan for 90 days in most cases.



*Although floodplain permitting can be time consuming and costly, the process helps ensure that existing and future development minimizes risk of flooding problems. Note the high water mark/debris at the base of the sign.*

## 404 PERMIT

The 404 Permit is administered by US Army Corps of Engineers (USACE) and regulates fill in jurisdictional streams and wetlands under the Clean Water Act. The Federal permitting process requires compliance with other Federal statutes including the Endangered Species Act (ESA).

### *Jurisdictional Waters*

Rivers streams and wetlands subject to 404 permitting generally include navigable waters, interstate waters, perennial and intermittent streams, or wetlands connected to navigable waters. Isolated wetlands (e.g., upland potholes), disconnected ephemeral stream segments, and some “artificial” human-caused wetlands may not be subject to 404 permitting requirements. The determination of whether a stream or wetland is jurisdictional is made on a case-by-case basis by USACE staff.



*Many wetlands are obvious to a lay person, but wetlands don't require open water to be jurisdictional. Fill within wetlands, floodplains, and stream channels generally requires a 404 permit.*

### *Application Process*

The Joint Application (same form as 310 permitting) is submitted to USACE in Helena. The application is reviewed for completeness, with particular attention to the quantity and placement of any proposed fill materials. USACE staff can provide guidance on application requirements based on the proposed project. In many cases, a formal wetland delineation and professional assistance may be needed to determine the extent of jurisdictional wetlands and impacts of any fill activities. USACE also reviews proposed project for compliance with other federal regulations, such as the Endangered Species Act (ESA), Cultural Resources (SHPO).

Obtaining a 404 permit may require a qualified professional to assist with technical requirements, especially for larger projects. However, even smaller projects under “Nationwide” permits are required to comply with Federal statute. Technical issues that are generally beyond a lay-person’s knowledge include:

- Biological Assessment for Endangered Species
- Wetland Delineation
- Streambank and Wetland Mitigation

### *Plan Ahead*

Depending on the complexity of the project, permitting may require 3 months to a year or more to obtain the permit. Small projects that fit into the “Nationwide” permit categories typically require 3-6 months, “Individual” permits require more extensive supporting documentation and review. Consultation with USACE staff in advance of submitting an application can help clarify requirements and expedite the process. Fees are not charged for general permits, transferring a permit from one property owner to another, for Letters of Permission, or for permits to governmental agencies or non-profit groups. Fees are required for most individual permits. The current fee is \$10.00 for a permit for a non-commercial activity and \$100.00 for a permit for a commercial or industrial activity.

## 404 PERMIT TYPES

Permits for new projects will generally fall under either the “Nationwide” or “Individual” permit types. The following discussion provides a brief overview. Federal 404 regulations are complex, subject to revision, and applicants are encouraged to consult with USACE staff to determine which requirements apply to their project.

### *Nationwide Permits*

These fall under 52 categories, and are often appropriate for projects such as culvert and bridge replacements, bank stabilization under 500 feet in length, and stream restoration activities. The Nationwide permits (NWP) come with certain “standard” conditions and Best Management Practices which must be followed. Several common Nationwide Permits are: Maintenance of Existing Structures (NWP3), Utility Lines (NWP12), Bank Stabilization (NWP13), Aquatic Restoration (NWP27), agricultural activities (NWP40), and reshaping existing drainage ditches (NWP41).

### *Individual Permits*

These apply to larger projects that exceed limits or conditions of the NWP criteria. These permits are reviewed under the lengthier Individual Permit process, and may require analyses such a Biological Assessment (BA), detailed wetland delineation, stream and wetland mitigation, and other requirements. The Individual Permit process often requires a year or more for final approval.



*River banks and floodplains are commonly jurisdictional waters of the U.S. The immediate river bank on all navigable waters below the ordinary high water mark (OHWM) will be jurisdictional. However, not all floodplains will be jurisdictional for 404 depending on the presence of wetlands.*

**Non-Jurisdictional  
Dryland**

**Jurisdiction  
Wetland**



*The differences between jurisdictional and non-jurisdictional areas may be subtle. Wetland delineations generally require a trained professional.*

### *401 Certification*

The State of Montana (MDEQ) participates in the Federal 404 permitting process through the 401 certification <http://deq.mt.gov/Water/Permits/401and318>. MDEQ reviews USACE 404 applications to ensure the activity will comply with state water quality standards, and MDEQ may deny, certify, or condition permits. Section 401 certification review fee is a minimum of \$400.00, or 1 percent of the gross value of the proposed project, not to exceed \$20,000.00. Appropriate review fees along with documentation of the gross value of any proposed project needs to be submitted with any 401 application. These fees may be waived for smaller projects on a case-by-case basis. Counties, incorporated cities or towns, and conservation districts are not subject to fees related to 401 Certification.

# AGRICULTURAL EXEMPTIONS FROM 404 PERMITTING

Certain agricultural practices may be exempt from 404 permitting. These include:

- Established (ongoing) farming, ranching, and silviculture activities such as plowing, seeding, cultivating, minor drainage, harvesting for the production of food, fiber, and forest products, or upland soil and water conservation practices
- Maintenance (but not construction) of drainage ditches
- Construction and maintenance of irrigation ditches, and farm or stock ponds
- Construction and maintenance of farm and forest roads, complying with best management practices
- Maintenance of structures such as dams, dikes, and levees

### *Agricultural Activities Not Exempt*

If an activity listed above as exempt represents a new use of the water, and the activity would result in a reduction in reach or impairment of flow or circulation of regulated waters, including wetlands, the activity is not exempt. Both conditions must be met in order for the activity to be considered non-exempt. In general, any discharge of dredged or fill material associated with an activity that converts a wetland to upland is not exempt and requires a 404 permit.

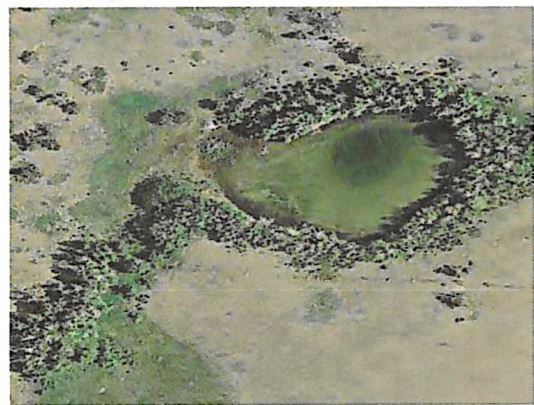
### CAUTION

*Plan Ahead* All applicants are advised to consult with USACE staff well in advanced to determine which permitting criteria potentially apply to their project.

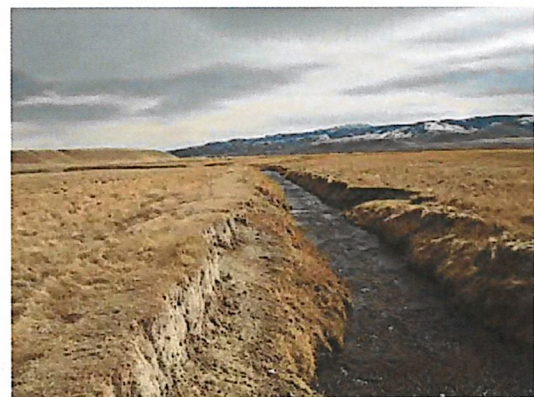
**New drainage ditch**



*Maintenance of existing drainage ditches is exempt from 404 permitting. Construction of new drainage ditches is not exempt.*



*Isolated wetlands, which are not connected to stream and river systems, may be exempt from 404 regulation.*



*Construction and maintenance of irrigation ditches is normally exempt from 404.*

## 404 ENDANGERED SPECIES COMPLIANCE

### *Endangered Species*

In western Montana, many stream projects are located in waters that support Bull Trout, a threatened species under the Endangered Species Act (ESA). If your project is located on a stream listed by the U.S. Department of Fish and Wildlife (USFWS) as critical habitat for Bull Trout, USACE is required to consult with the USFWS to determine the project's impacts on endangered species habitat under Section 7 and Section 10 provisions of the ESA.

Additional species that may require special consideration include Pallid and Kootenai River White Sturgeon, Sage Grouse, Bald and Golden Eagles, certain plant species (e.g., *Howelia*), etc.

### *Biological Assessment*

USACE must provide a biological assessment (BA) to the USFWS to help determine possible effects on Bull Trout (or other species). USACE will develop a BA if none is supplied by the applicant. However, review periods can be substantially shortened if the applicant chooses to submit one written by a qualified consultant. If USACE must write the BA, a review period of a year or more is common. If a BA is provided by the applicant, the review period is usually on the order of 6 to 12 months.

### *SLOPES Procedure*

SLOPES (Standard Local Operating Procedures for Endangered Species) helps streamline the permitting of projects in listed species streams. The project must meet certain conditions to minimize the potential to impact endangered species. Among numerous criteria are bank stabilization not exceeding 300 feet in length, preference for bioengineering techniques, construction "in the dry" and only during certain times of the year, and a host of other considerations. If a project meets SLOPES criteria, the need for a BA can be reduced or eliminated, and the permitting time is shortened.

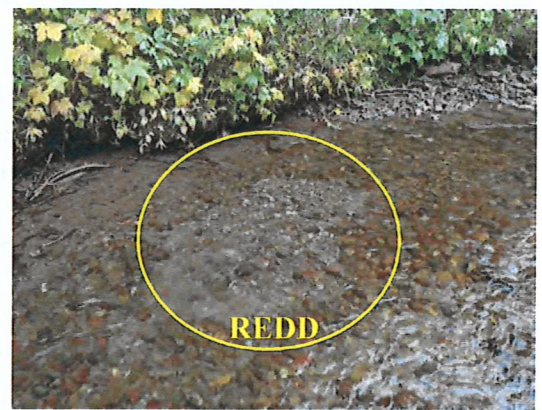
Additional information on SLOPES is found in the appendix.



*This river bank is jurisdictional under 404 and a project would require review under ESA provisions because of Bull Trout.*



*Impacts to Bull Trout (threatened under the ESA) must be minimized during construction and following completion of the project.*



*Tributaries are particularly important to Bull Trout spawning. Redds are clean patches of gravel created by fish to place eggs during spawning. Areas where redds are found are particularly high value.*

## 404 WETLAND ISSUES

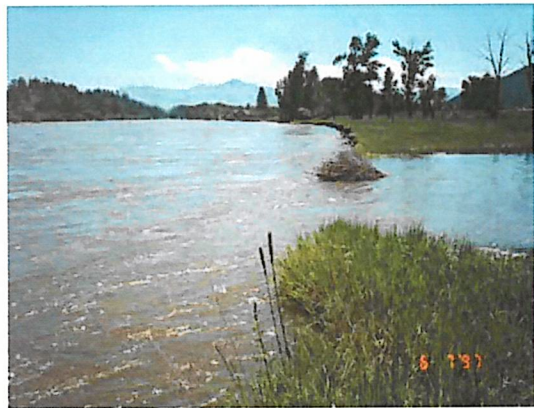
Stream projects generally affect wetland areas to some extent, even if only along the edge of the stream channel. Impacts may be minimal, such as temporary access across soft ground during construction, or may include permanent changes, such as dikes, fill, or excavation. Although stream permitting may not address all aspects of specific wetland impacts, projects that directly or inadvertently affect wetlands may be regulated by the 404 permitting process.

Identifying wetland areas that are “jurisdictional” under Clean Water Act Section 404 is not always obvious. Wetlands are defined by a certain combination of soils, vegetation, and hydrology. Wetland does not simply mean areas with standing, shallow water and cattails. Pasture, floodplain, swampy areas flooded from ditch leakage, etc. may all be subject to wetland law. In more difficult situations, a trained specialist is required to make a “wetland delineation.” National Resources Conservation Service staff, USACE, and other trained professionals can make these determinations.

Because specific exemptions exist and federal wetland law changes over time, it is difficult to generalize which stream projects or related activities may be regulated. The safe approach is to submit a 404 application to USACE, and let the agency make the determination about the project.

404 permit reviewers want to know where excavated fill materials will be placed (even if off-site) and the quantities and types of imported materials (such as rock) used on the project. Temporary or permanent access roads for the project should be accurately described.

Permitting through the Clean Water Act Section 404 may also require an evaluation of cultural resources, endangered species, historic structures, and other considerations related to federal law.



*Wetlands frequently include areas adjacent to the stream channel that may not be wet during most of the year.*



*Wetland regulations may apply to activities in residential, agricultural, and industrial sites. Excavation and fill, cleaning, grubbing, or other alterations may fall under 404 permitting.*



*Jurisdictional wetlands include much of the area in this photo, not just the wet area.*



## 404 WETLAND DELINEATIONS

A formal wetland delineation is required for most projects. This requires a trained professional to evaluate the soils, hydrology, and vegetation at the project site, and to determine what impacts the project will have to jurisdictional wetlands. Jurisdictional wetlands are often not apparent to a lay-person, and a trained specialist is typically needed to interpret these areas according to technical guidance established by USACE. Seasonally wet soils are a common indicator. Pooled or standing water is not necessary to define jurisdictional wetlands.

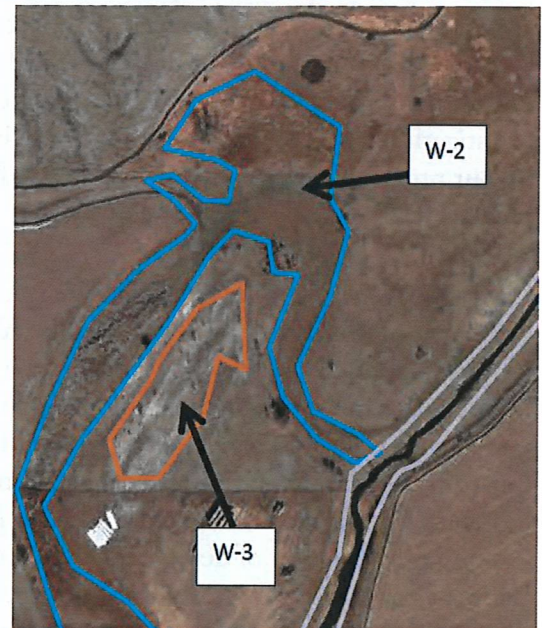
Wetland delineations are conducted using a technical guidance manual developed by USACE in 1987, and also a 2010 regional supplemental manual for the great plains, arid west and western mountains.

- The distribution and abundance of individual plant species are evaluated to determine the prevalence of wetland-specific species.
- Soil types are reviewed using NRCS mapping, and soil pits are employed to review hydric (saturated) conditions.
- Site hydrology including frequency and duration of seasonally saturated soil conditions is evaluated.
- The delineation requires mapping the boundary of the wetland using GPS or survey.

The wetland delineation report helps determine the amount (if any) of mitigation required based on impacts of the proposed project.



*Soil pits are used to evaluate hydrology and hydric soil conditions.*



*Wetland delineations require surveyed and mapped boundaries. This map shows two distinct wetlands in the project area.*

### *Plan Ahead*

By statute, 404 permits require wetland delineations to characterize “special waters of the U.S.” which may be impacted. At their discretion, USACE may accept and approve smaller projects without a formal wetland delineation. Project planning should take into account that wetland delineations are normally done during the growing season, and are difficult or impossible to conduct in the winter. Applicants should consult with USACE staff in Helena to determine what technical information will be required for their project. The Corps receives thousands of requests each year to perform wetland delineations for potential applicants for permits under Section 404 of the Clean Water Act. Due to limited staff and resources, response time can be several months or longer depending upon workload and the time of year. To expedite this process, the Corps encourages applicants to use consultants to conduct wetland delineations, especially for large and/or complex areas.

## 404 STREAM AND WETLAND MITIGATION

### *Avoid, Minimize, Mitigate.*

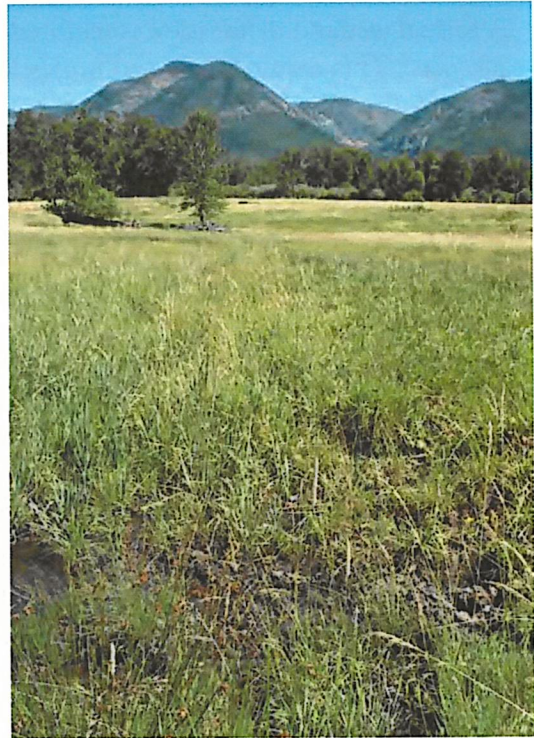
Permitting for 404 generally follows the sequence: avoid impacts, minimize impacts, and mitigate impacts to wetlands and streambanks. Those impacts that have been minimized and cannot be avoided will often require mitigation if they exceed certain thresholds. Both wetland and streambank mitigation have specific procedures and worksheets which must be followed to determine debits and credits for a proposed project.

### *Wetland Impacts*

The formal wetland delineation will assist in establishing the extent of wetland impacts. Depending on the type of project, as little as 0.1 acre of wetland impact may trigger the need for wetland mitigation. A qualified professional can help guide your project and review with USACE staff.

### *Stream Impacts*

Mitigation may also be required for certain stream channel modifications including bank stabilization projects. Projects between 150 and 300 linear feet in length can require streambank mitigation on a case-by-case basis. Projects over 300 feet in length usually require mitigation under the Montana Stream Mitigation Procedures (MSMP). MSMP requires calculation of debits and credits to offset impacts of streambank stabilization projects. The USACE has a specific procedure and spreadsheet for calculating mitigation requirements. The softer and more environmentally-friendly the bank stabilization design, the less mitigation is required. Fully soft bank restoration may require no mitigation because they may be viewed as improvements to the physical, chemical, and biological characteristics of a stream. Purchase of mitigation credits can add substantial cost to a stream project. Information on stream mitigation can be obtained from USACE.



*Jurisdictional wetlands are common in agricultural wet meadows and subirrigated areas. Baltic Rush and Nebraska Sedge are two common indicator plant species.*



*Bank stabilization projects longer than 300 feet will require stream mitigation under the Montana Stream Mitigation Procedures. Hard stabilization using riprap typically requires much more mitigation than bioengineering techniques.*

*On-site wetland mitigation may be possible if sufficient wetland values can be created.*

## 404 MITIGATION TAKES MANY FORMS

Compensatory mitigation is the restoration, establishment, enhancement, or preservation of aquatic resources for the purpose of offsetting losses of aquatic resources resulting from activities authorized by Corps of Engineers' permits. In general, mitigation available to an applicant to compensate for project impacts falls under four major categories.

- Obtain credits from an established mitigation bank
- Obtain credits from an approved In-Lieu-Fee (ILF) sponsor
- Permittee-responsible mitigation (i.e., do-it-yourself)
- A combination of some or all of the above options

Permit applicants are encouraged to consult with the Corps early in the permit application process to discuss potential compensatory mitigation alternatives

### *Mitigation Bank Credits*

The applicant may elect to purchase credits from an established stream or wetland mitigation bank as long as impacts are within the bank's service area and the bank has appropriate credits available. This approach offers convenience, as credits are "pre-approved" and effective immediately, requiring no additional effort by the project permittee.

### *In-Lieu Fee (ILF) Credits*

The applicant may procure credits from an ILF sponsor who will commit to providing the compensatory mitigation. Information can be found on the [Montana Aquatic Resources Services \(MARS\)](#) website.

### *Permittee-Responsible Mitigation*

The applicant may elect to prepare their own mitigation proposal or hire a consultant to prepare a mitigation plan which must be approved by USACE. In this case, the Permittee retains all the responsibilities for the mitigation obligations. Mitigation may be achieved through on-site and in-kind mitigation, including such strategies as conservation easements, stream setbacks, fencing, and aquatic restoration activities. Though more challenging to organize and administer, off-site mitigation is also a possibility.



*The Nevada Spring Creek mitigation bank restored a creek in the Blackfoot Valley (photo immediately after construction).*



*The restored reach of Nevada Spring Creek post construction. Post construction provided both wetland and stream credits.*



*Nevada Spring Creek before and after restoration.*

## 401 WATER QUALITY CERTIFICATION

### FOR 404 PERMITS & OTHER FEDERAL PERMITS AND APPLICATIONS

#### 401 Water Quality Certification - Dredge & Fill

Under Section 401 of the federal Clean Water Act, states and tribes can review and approve, condition, or deny all Federal permits or licenses that might result in a discharge to State or Tribal waters, including wetlands. The major Federal licenses and permits subject to Section 401 are Section 402 and 404 permits (in non-delegated states), Federal Energy Regulatory Commission hydropower licenses, and Rivers and Harbors Act Section 9 and 10 permits. States and tribes may choose to waive their Section 401 certification authority.

States and Tribes make their decisions to deny, certify, or condition permits or licenses primarily by ensuring the activity will comply with state water quality standards. In addition, states and tribes look at whether the activity will violate effluent limitations, new source performance standards, toxic pollutants, and other water resource requirements of state/tribal law or regulation. The Section 401 review allows for better consideration of state-specific concerns.

Current fee rules became effective February 15, 2002, and require that fees be submitted with completed applications for certification. As noted in the fee rules (17.30.201(6)(o)), the Section 401 certification review fee is a minimum of \$400.00, or 1 percent of the gross value of the proposed project, not to exceed \$20,000.00. Appropriate review fees along with documentation of the gross value of any proposed project needs to be submitted with any 401 application. The check should be made payable to the Water Protection Bureau, DEQ and on the memo section of the check, a notation indicating the name of the proposed project and that it is for a Section 401 Water Quality Certification review.

Counties, incorporated cities or towns, and conservation districts are not subject to fees related to 401 Certification.

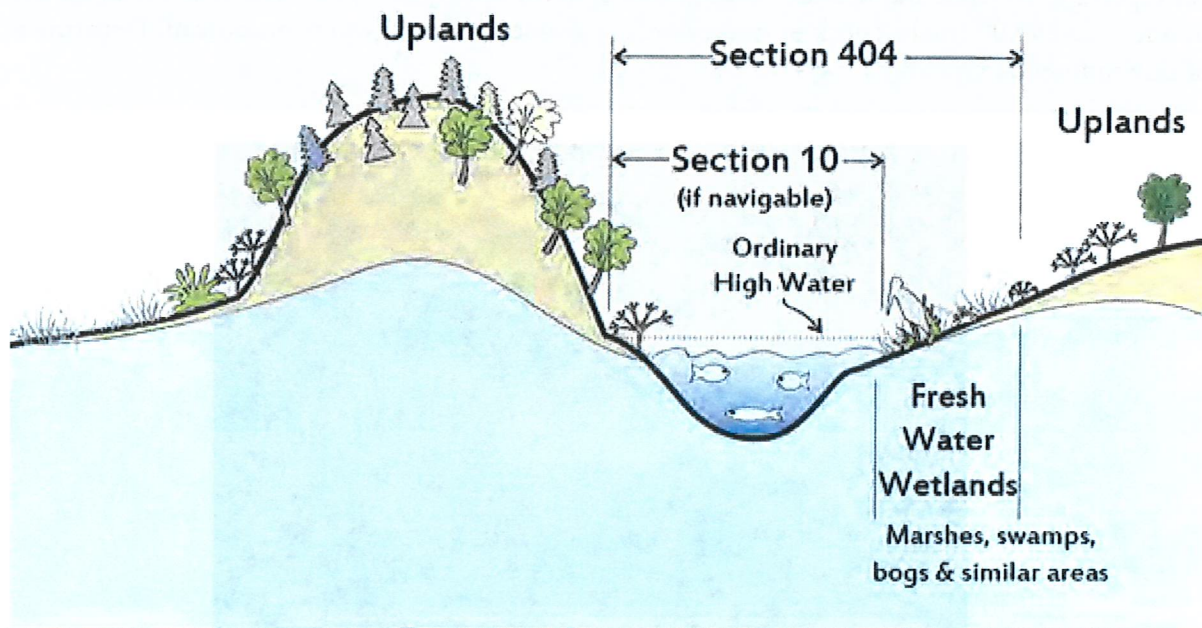
## SECTION 10 PERMIT - FEDERAL RIVERS AND HARBORS ACT

Section 10 of the Rivers and Harbors Act of 1899 requires that regulated activities conducted in, over, or under navigable waters of the United States, or any work that would affect the course, location, condition or capacity of those waters, be approved/permited by the U.S. Army Corps of Engineers. Regulated activities include the placement/removal of structures, work involving dredging, disposal of dredged material, filling, excavation, or any other disturbance of soils/sediments or modification of a navigable waterway.

Navigable waters of the United States are those waters of the U.S. that are subject to the ebb and flow of the tide shoreward to the mean high-water mark and/or are presently used, or have been used in the past or may be susceptible to use to transport interstate or foreign commerce. **Navigable waters of the U.S. are not necessarily the same as state navigable waterways** (list on page 1.32). Tributaries and backwater areas associated with navigable waters of the U.S., and located below the OHW elevation of the adjacent navigable waterway, are also regulated under Section 10. When adjacent wetlands are present, the jurisdiction extends beyond the ordinary high water mark to the delineated limit of the adjacent wetlands.

### Corps of Engineers Regulatory Jurisdiction

### Fresh Waters



#### Section 404

Disposal of Dredged or Fill Material  
All filling activities, utility lines, outfall structures, beach nourishment, riprap, jetties, some excavation activities, etc.

#### Section 10

All Structures and Work (navigable waters)  
Dredging, marinas, piers, wharves, floats, intake/outtake pipes, pilings, bulkheads, ramps, fills, overhead transmission lines, etc.

## 318 PERMIT - SHORT TERM TURBIDITY

### *Who Must Apply?*

Any person, agency, or entity, both public and private, initiating construction activity that will cause short term or temporary violations of state surface water quality standards for turbidity.

### *Activities Requiring a Permit*

Any activity in any state water that will cause unavoidable short term violations of water quality standards. "State water" includes any body of water, irrigation system, or drainage system, either surface or underground, including wetlands, except for irrigation water where the water is used up within the irrigation system and the water is not returned to other state water.

### *Applications Procedure/Timeline*

A 318 Authorization must be obtained prior to initiating a project. The authorization may be obtained from the Department of Environmental Quality, or may be waived by Montana Fish, Wildlife & Parks during its review process under the Natural Streambed and Land Preservation Act (310 Permit) or the Stream Protection Act (SPA 124 Permit).

Under certain circumstances, Montana Fish, Wildlife & Parks can issue 318 permits on behalf of the Montana Department of Environmental Quality.

Individual applications submitted to the Department of Environmental Quality are normally processed within 30 to 60 days. Authorizations waived under the 310 or SPA 124 permit processes correspond to the time frame under each permit system, usually 30 to 60 days. There is an application fee of \$250.00 (make check or money order payable to Water Protection Bureau, Department of Environmental Quality).



*Projects that may result in temporary sediment introduction to a stream will require a 318 permit allowing work to be completed with an emphasis on a minimum of sediment introduction.*

## MONTANA LAND-USE LICENSE OR EASEMENT ON NAVIGABLE WATERS

### *Who Must Apply?*

Any entity proposing a project on lands below the low water mark of navigable waters.

### *Activities Requiring a Permit*

The construction, placement, maintenance, or modification of a structure or improvements in, over, below, or above a navigable river. If in doubt, contact the Department of Natural Resources and Conservation Land Office nearest to the project area for a determination of the navigability of the river.

This permit program does not apply to mining, mineral, or oil and gas activities in navigable rivers.

### *Applications Procedure/Timeline*

A DNRC Land Use License or Easement Application, along with the nonrefundable application fee, must be submitted to the appropriate Land Office nearest to the project area. DNRC staff will review the application, conduct a field investigation if necessary, and file an environmental action checklist as appropriate. A written report and recommendation is then submitted to the Real Estate Management Bureau in Helena, which makes the final determination and recommends stipulations as necessary.

A Land Use License can normally be reviewed, approved, and issued within 60 days upon the payment of the \$50 application fee and a minimum annual rental fee. The license may be held for up to 10 years, with the ability to request renewal for an additional 10 years. An easement requires approval from the Board of Land Commissioners, which normally takes up to 90 days. The current easement application fee is \$50, with an additional fee for the easement itself.

## The following Rivers and Streams and portions of Rivers and Streams are considered Navigable by the State of Montana

- BIG HOLE RIVER - from Steel Creek to Divide, Montana.
- BIG HORN RIVER - from the Wyoming state line to its confluence with the Yellowstone River.
- BITTERROOT RIVER - from the confluence of its east and west forks to its confluence with the Clark Fork River.
- BLACKFOOT RIVER - from Lincoln, Montana to its confluence with the Clark Fork River.
- BOULDER RIVER (Tributary to the Yellowstone River) - from the northern township line of Township 6 South, Range 12 East, to its confluence with the Yellowstone River. The west Boulder River is commercially navigable from the southern line of Township 3 South, Range 11 East, to its confluence with the main stem of the Boulder River.
- BULL RIVER - from a point south of Bull Lake to its confluence with the Clark Fork River.
- CLARK FORK RIVER - from Deerlodge, Montana to the Idaho state line.
- CLEARWATER RIVER - from, and including, Seeley Lake, to its confluence with the Blackfoot River.
- DEARBORN RIVER - from Highway 434 to its confluence with the Missouri River.
- DUPUYER CREEK - See 'South Fork Dupuyer Creek'.
- FLATHEAD RIVER (MAIN STEM) - from the confluence of its north and middle forks to its confluence with the Clark Fork River.  
However, given Neman court case, the state does not claim any river ownership within the boundaries of the Flathead Indian Reservation at this time.
- FLATHEAD RIVER (MIDDLE FORK) - from Nyack, Montana to its confluence with the north fork of the Flathead River.
- FLATHEAD RIVER (NORTH FORK) - from Logging Creek to its confluence with the main stem of the Flathead River.
- FLATHEAD RIVER (SOUTH FORK) - from the face of Hungry Horse Dam to the main stem of the Flathead River.
- FORTINE CREEK (Tributary to Tobacco River) - from Swamp Creek to its confluence with the Tobacco River.
- GALLATIN RIVER - from Taylor's Fork to Central Park, Montana.
- GRAVES CREEK (Tributary to Tobacco River) - from where Graves Creek intersects the eastern township line of Township 35 North, Range 26 West, to its confluence with the Tobacco River.
- JEFFERSON RIVER - from its confluence of the Beaverhead and Ruby Rivers to the Jefferson's confluence with the Missouri River.
- KOOTENAI RIVER - from the Canadian line to the Idaho state line.
- LITTLE MISSOURI RIVER - from its confluence of Cottonwood Creek to the South Dakota state line.
- LOLO CREEK - from the mouth of Tevis Creek to Lolo Creek's confluence with the Bitterroot River.
- MADISON RIVER - from the confluence of its west fork to Varney, Montana.
- MARIAS RIVER - from its confluence with the Missouri River to a point five miles upstream.
- MISSOURI RIVER - from its headwaters at Three Forks, Montana to the North Dakota state line.
- NINE MILE CREEK (Tributary to the Clark Fork River) - from the southeast corner of Township 17 North, Range 24 West, to its confluence with the Clark Fork River.
- ROCK CREEK (Tributary to the Clark Fork of the Yellowstone) - from the main fork of Rock Creek to Red Lodge, Montana.
- SHEEP CREEK (Tributary to Smith River) - from the mouth of Deadman Creek to its confluence with the Smith River.
- SMITH RIVER - from the mouth of Sheep Creek to its confluence with the Missouri River.
- SOUTH FORK DUPUYER CREEK (Tributary to Dupuyer Creek and Marias River) - from the basins above the canyon to the mouth of the canyon, a distance of approximately eight miles.
- STILLWATER RIVER - from upper Stillwater Lake to its confluence with the Flathead River.
- SUN RIVER - from the confluence of the north and south forks of the Sun River to its confluence with the Missouri River.
- SWAN RIVER - from and including Swan Lake to its confluence with Flathead Lake.
- TETON RIVER - from the confluence of its north fork to its confluence with the Marias River.
- TOBACCO RIVER - from the mouth of Graves Creek to its confluence with the Kootenai River.
- TONGUE RIVER - from the south line of Township 2 South, Range 44 East, to its confluence with the Yellowstone River.
- WHITEFISH RIVER - from, and including, Whitefish Lake to its confluence with the Stillwater River.
- YAAK RIVER - from the mouth of Fourth of July Creek to its confluence with the Kootenai River.
- YELLOWSTONE RIVER - from Emigrant, Montana to the North Dakota state line.

## Waters considered Navigable by the Army Corps of Engineers in the State of Montana

- KOOTENAI RIVER - From the International Border between the United States and Canada downstream to Jennings Rapids near Jennings, Montana.
- MISSOURI RIVER - From its Headwaters near Three Forks, Montana downstream to the North Dakota Border
- YELLOWSTONE RIVER - From Emigrant, Montana downstream to the North Dakota border.



## WATER RIGHTS

### Diversion and Appropriation

Under Montana Statute, surface or groundwater can be appropriated for beneficial uses with a water right. Water is “appropriated” with structures, facilities, or methods used to divert, impound, or collect water. Examples may include a dike, dam, weir, ditch, headgate, infiltration gallery, pipeline, pump, pit, or well. Structures that appropriate water require both a beneficial use and in most cases, an associated water right. Water rights are administered by the DNRC and the Montana Water Court.

Beneficial uses include agricultural, stock water, domestic, fish and wildlife, industrial, irrigation, mining, municipal, power, and recreational uses. Beneficial Use also includes specific instances of instream flow to protect, maintain, or enhance streamflows to benefit the fishery resource.

### *Prior Appropriations Doctrine: “First in Time is First in Right”*

Water rights are granted a priority date based on the filed claim, documented historic use, or adjudicated priority date. Earlier dates are “senior” to later claims or “junior” users. In the event available water is limited, senior users have priority and junior users must cease water use. Senior users can make “call” to exercise their rights. Many streams and rivers are “over-appropriated,” and water rights claims exceed water supply during low flow. Such situations are often administrated by a water commissioner.


Water rights typically have a defined point of diversion, place of use, flow rate, and period of use. Volume may also appear on rights associated with reservoir or ponds. Water rights must be exercised consistent with the permitted or adjudicated use.

### *New Appropriations*

Many basins in Montana are closed to new appropriations of surface or groundwater. In most cases, opportunities to appropriate “new” water are limited by competing existing claims, water availability, and by statute (i.e., basin closures). Exceptions to this exist, including small individual private wells that serve a household. These wells require a 602 certificate, or “Notice of Completion”, which can authorize up to 10 ac-ft/yr and 35 gpm (subject to future changes) for domestic and lawn/garden use. The 602 can also be used for small excavated ponds which use groundwater.

The process for larger appropriations employs the 600 permit. This involves a detailed analysis of physical and legal water availability, potential for adverse impact to other water users, etc. In general, permits for larger “new” water uses are limited in closed basins except in certain circumstances. Examples might include “non-consumptive” use such as ground source heat pumps.

Form No. 606 IR (R 10-2019)



**APPLICATION TO CHANGE  
AN EXISTING  
IRRIGATION WATER RIGHT**

**FILING FEE - \$900.00**

**FILING FEE REDUCTION**  
If you attend a pre-application meeting with DNRC staff and your application is submitted within 6 months of the meeting date, the filing fee will be reduced by \$200.00. The time period may be extended if measurements or an aquifer test is required.

Use this application to change the point of diversion, place of use, purpose of use, and/or place of storage of an existing irrigation water right. Attach additional sheets if necessary. Attachments must be labeled as shown in the sections below.

**ADDENDUMS THAT MAY BE NEEDED**

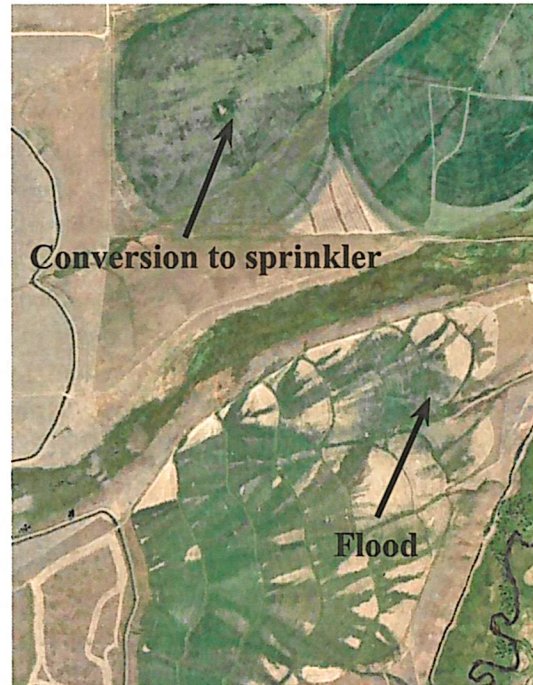
- Water Marketing
- Historical Water Use
- Instream Flow
- Purpose
- Place of Storage
- Salvage Water
- Temporary Change
- Sage Grouse Review
- Aquifer Testing Addendum

*Form 606 is used to make changes to existing irrigation water rights, for example, from irrigation to in-stream flow.*

*WATER RIGHTS (continued)**Change Applications*

Converting water use from one type to another (e.g., irrigation to a recreational pond) requires a formal change application. Change applications are administered by DNRC and are required when changing the type of beneficial use, or other elements of the water right such as location of use, point of diversion, or place of storage. The change application process is intended to insure proposed water use is consistent with historic consumptive use and does not cause adverse effects for existing water users. The process first requires review of the underlying right to verify existing water use.

Because many basins are closed to new appropriation, the change application process is used to convert existing water uses to new purposes. For example, a large subdivision might convert irrigation rights to domestic uses, and retire the previously irrigated acres. The same principle applies to instream flow leases, where irrigated acreage is retired in exchange for instream purposes. Notably, change applications cannot increase consumptive use, or protect more than consumptive use. For example, a 10 acre flood-irrigated field that required 80 ac-ft to flood, with 20ac-ft of evapotranspiration by crops would be limited to 20 ac-ft of consumptive use that could be transferred to a new use.



*Conversion from flood irrigation to sprinkler does not require a change in water right.*

*Potential Exemptions: When is No Water Right Needed?*

Some exemptions exist for use of water without a water right.

- Stream restoration projects including beaver mimicry that impounds < 0.1 ac-ft of water are exempt.
- Wetland restoration projects that do not increase consumptive use are exempt, but constructed/created wetlands that expand water use are not exempt.
- Watering riparian/streambank vegetation to establish new plantings may be exempt, but watering new lawns or crops is not.
- Emergency use for fire suppression is typically exempt.

These exemptions are subject to change, and water users are encouraged to discuss their proposed activity with DNRC water rights staff.

**CAUTION**

- Existing water uses are protected by Montana statute and any changes to historic use need to be carefully evaluated to ensure other water users are not adversely impacted.
- Changes to existing water rights and water management practices need to be reviewed by DNRC through the change application process.

## FISH STOCKING PERMIT

### Fish Stocking

Fish stocking of a private pond may legally be undertaken only after a Non-Commercial Private Fish Pond License has been issued by MFWP.

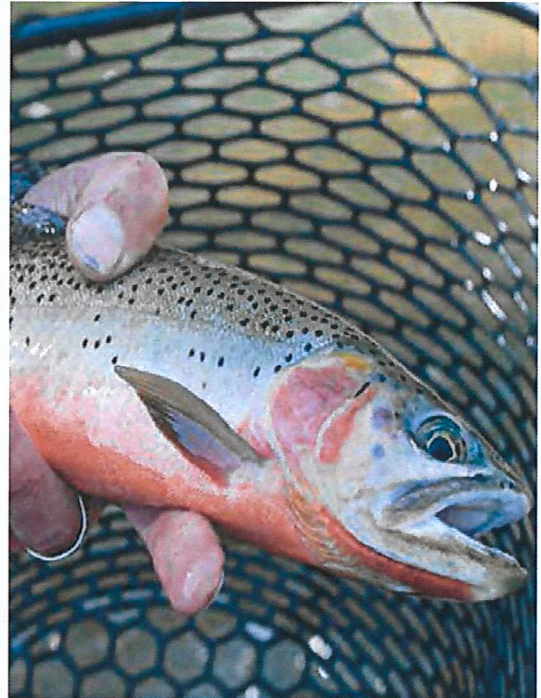
A private pond is defined as “a body of water created by artificial means or by a diversion of water that does not exceed 500 acres of surface area.” (MCA 87-4-603).

A private pond “does not include all other natural ponds or bodies of water, including streams or rivers and impoundments or reservoirs of or on a natural stream, river, lake, or pond.”

### Public and Private Waters

Natural waters are public waters in Montana, and a private pond owner may not restrict the public use of them. Further, the law is meant to prevent the damming of natural streams on private property that can harm stream habitat, interfere with fish migration, and result in ponds ultimately filling with sediment.

If a pond meets certain requirements, the owner of the pond may qualify for a fish stocking license. This allows the pond owner to “stock the fish pond with” approved fish species “procured from any lawful source” and to “take fish from the lake or pond in any manner.” State fishing regulations and licenses are not required to take fish from a private pond.



*A fish stocking permit may require use of native species such as cutthroat trout.*



*Natural water bodies, especially those connected to perennial streams, may be considered public waters by Montana statute.*

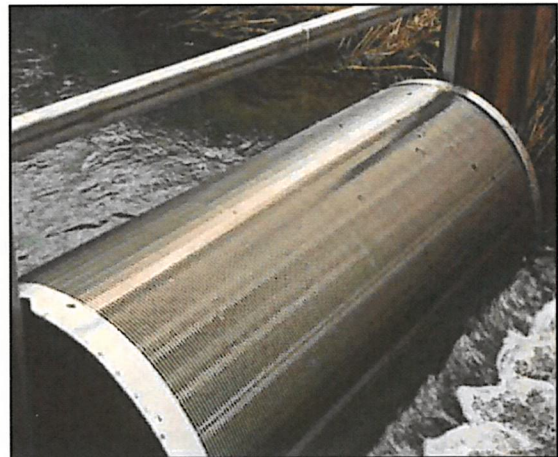
*FISH STOCKING PERMIT (continued)***Permit Considerations**

A Non-Commercial Private Fish Pond License must be obtained from MFWP before fish can be procured or stocked:

- MFWP will designate which fish species may be planted.
- MFWP may condition the license regarding fish barriers, if they are deemed necessary.
- There is a \$10 application fee that must be paid to initiate the review process.

Proof of a water right appropriate for the size and location of the pond will be required prior to issuing the Non-Commercial Private Fish Pond License.

- For existing ponds that have a valid Reservoir Record from DNRC and a priority date prior to January 1, 2000, a private pond permit can be issued without a specific “fishery” or “fish and wildlife” purpose.
- For ponds with a water right priority date of January 1, 2000 or later, the water right must include a “fishery” or “fish and wildlife” purpose to obtain a fish pond permit.
- Any impoundment created via the “stockwater exemption” in the Water Use Act (85- 2-306(3), MCA) must obtain a new water right for fishery purposes if the stockwater exception was issued January 1, 2000 or later.



*Inlets and outlets of ponds connected to perennial streams may require screening to prevent escapement of stocked fish, or capture of fish from the stream.*



*Groundwater ponds with no inlet or outlet, or not located in the floodplain, may have more lenient stocking requirements than ponds in the floodplain or connected to streams with diversion ditches.*

**CAUTION**

- Ponds should not impound perennial streams, and should be located away from the stream channel. Ponds located in the floodplain will have additional permitting requirements, and may have limitations on stocking.
- Ponds may need emergency spillways if flooding could occur.
- Ponds may need fish barriers on inlet and outlets to prevent capture or escape of fish.
- Groundwater ponds without inlets and outlets may not need fish barriers or emergency spillways.
- Aquatic nuisance species can be a threat to ponds and adjoining natural waterbodies.
- Pond stocking permits are reviewed by a local MFWP biologist and the applicant should plan to coordinate with agency staff.

## SUMMARY OF PERMITTING EXPECTATIONS AND PROCESS

Design requirements depend upon the granting agency and expectations, which may vary according to local policy. In all cases, stream project designs must be sufficiently complete to demonstrate the probability of success and any potential impacts of the proposed project. Engineered designs may be required, especially for larger scale, complicated, or intensive projects that may have potential impacts.



*Management of fill in wetlands and floodplains is important to permitting agencies.*

For all stream project permitting, a detailed description of the proposed work should include, at a minimum:

- Description of the existing condition and rationale for proposed work
- Site map or drawing, including legal location
- Dimensions of site where work is proposed (use the high water mark, if known as a point of measure)
- Quantities and types of materials (rock, trees, gravel, erosion fabric, etc.)
- Construction techniques, including equipment used
- Where excavated material will be placed
- Revegetation and weed management plans
- Timing of proposed work
- How impacts to fish and aquatic habitat will be minimized
- How impacts to the channel, erosion, sedimentary effects on water quality and stream flow, and the risks of flooding will be minimized
- Expected benefits of the work, including the natural environment and any infrastructure protection needs
- Names and addresses of adjacent landowners

A complete description of all proposed work is important, because any construction activity not explicitly described in the permit, in writing may be considered to be a violation of the permit conditions.

*The Montana Streambed and Land Preservation Act (310 Permit)* permitting process requires the project to be effective for the intended purpose and protective of the natural streambed and banks. The 310 process is not intended to provide technical design review, certification of designs, or substitute for engineering expertise. A site visit by Conservation District members is generally required to review proposed work.

*Section 404 of the Clean Water Act (404 Permit)* focuses on wetland and stream channel disturbance, including placement of fill materials. USACE 404 permits are required on many stream projects requiring a 310 permit, and also include many projects adjacent to the stream channel or in the floodplain which may not require a 310 permit. Many smaller stream or river projects fall under the streamlined 404 “nationwide” permitting system, which expedites processing of the application. Stream projects in excess of 300 linear feet may require mitigation under the Montana Stream Mitigation Procedure (MSMP).

*SUMMARY OF PERMITTING EXPECTATIONS AND PROCESS (continued)*

*Section 10 of the Rivers and Harbors Act of 1899 (Section 10 Permit)* requires a permit prior to the accomplishment of any work in, over, or under navigable waters of the United States, or which affects the course, location, condition or capacity of such waters.

*The Floodplain Development Permit* is the local extension of FEMA policies that are intended to minimize flood damage with floodplain developments. Floodplain development permits may require engineered design to ensure certain criteria are met, such as stability in a 100-year flood, demonstration of no adverse impacts up or downstream, and analysis of effects on elevation of a 100-year flood.

*The Short-term Turbidity (318 Permit)* focuses on ensuring that proper sediment control measures are taken during construction to minimize impacts to water quality. Requirements are generally satisfied by the 310 permit for smaller projects that release minimal sediment to the stream. A separate 318 permit should be obtained for projects that have the potential to release substantial amounts of sediment during construction.

*Montana Pollutant Discharge Elimination System (MPDES) Permit* considers water quality and sediment control on construction sites, and seeks to ensure that proper measures are taken to minimize potential impacts to surface water. Construction projects that have site disturbance near surface water, or that could discharge runoff to surface water, may require the MPDES permit. At a minimum, the permit requires a site drainage control plan with approved practices to minimize potential erosion and runoff from the site.

*The Montana Stream Protection Act (124 Permit)* requires projects to protect Montana's fishing waters such that they remain for all time in their natural existing state, except as may be necessary and appropriate after due consideration of all factors involved. Project applications are generally followed by a site visit by the local fisheries biologist. The permit includes requirements to protect fish and wildlife habitat.



*Construction activities on the bed and banks of perennial streams generally require both state and federal permits. No floodplain permit was required for this project.*



*Channel reshaping or placement of fill within the active floodway (including woody debris) normally requires a floodplain permit in FEMA floodplains.*

# STORMWATER AND EROSION CONTROL BMPs FOR CONSTRUCTION

## Construction Planning and Best Management Practices (BMPs)

Efficient project planning can greatly reduce sedimentation by 1) reducing the project duration, 2) reducing the number of times machinery enters channel, 3) reducing overall site disturbance, and 4) identifying appropriate BMPs for sediment control.

All projects should seek to:

- Minimize site disturbance
- Preserve existing vegetation as much as possible
- Use erosion control measures (hay bales, silt fence, drainage features, etc.)
- Reseed disturbed areas
- Minimize the spread of invasive aquatic species by cleaning and drying equipment before and after mobilization



*Dewatering construction areas with pumps requires a MPDES permit when discharging to State waters.*

## Sediment Control is Water Control

Avoid excavation in flowing water. Even gravelly substrates can release substantial amounts of fine sediment during construction. Dewatering options may include:

- Isolating the work site with barriers (e.g., berms, tarps, coffer dams, sheet pile)
- Rerouting the channel around the work site
- Dewatering with pumps, or diversion into irrigation ditches

Dewatering a construction area requires a discharge permit (MPDES) to release discharge to surface water. Turbid water generally must be filtered through sediment retention structures prior to release.

## Construction Timing

On river projects, the best construction time is generally during low flows in mid-summer, and sometimes in mid-winter when the ground is frozen. Fisheries and recreational concerns may restrict construction windows.

Construction activities with the potential to release fine sediments or dewater channels should be planned to avoid disturbing spawning fish and egg incubation. Both spring and fall periods may have spawning runs depending on fish species in the drainage. State and federal fish biologists can make recommendations during the permitting process. Construction timing may also need to consider impacts on recreational use, such as rafting or fishing.

## STORMWATER AND EROSION CONTROL BMPs FOR CONSTRUCTION *(continued)*

### Construction BMPs - Aquatic Invasive Species

Aquatic and terrestrial invasive species can be spread by construction equipment. Site disturbance makes new construction areas especially vulnerable to establishment of invasive species. Clean all mud and plant material from construction equipment, trailers, etc. preferably by power washing equipment prior to mobilization to the new construction site.

Aquatic invasive species of particular concern include Zebra and Quagga mussels, whirling disease, and the New Zealand mudsnail. Terrestrial and aquatic weed species include leafy spurge, knapweed, thistle, purple loosetrife, Eurasian water milfoil, and others. Proper cleaning of equipment helps limit the spread of these species.

## WORKING WITH A LANDOWNER'S REPRESENTATIVE(S)

Stream permit applications are often submitted by the landowner's representative: a consultant or construction contractor. This person may not actually perform the project work, and the **landowner is ultimately responsible for the permit.**

It is therefore imperative that the landowners sign the permit application, authorizing the consultant or contractor to represent them. The decision form must also be signed by the landowners to ensure that they agree to construct the project as permitted. All permit correspondence should be sent to both the landowners and their representative throughout the permitting process to ensure that the landowners receive all pertinent information.

A consultant, construction contractor, or engineer is often hired to design and oversee a proposed project. This person may be directly involved in the entire permitting process and implementation phase. However, for any of several reasons (costs, timing, etc.), landowners may change consultants or contractors during the process, or may plan to do the actual construction work themselves.

Out-of-state landowners typically hire a realtor to obtain the needed stream permits as a service to them. In these cases, the realtor's involvement usually ends here, and he or she will not be involved in the project construction stage.

## WORKING WITH UTILITY COMPANIES

When a utility company applies for a stream permit, the landowner's signature is not necessary because the company will obtain a legal right-of-way from the landowner before beginning project construction.