



# Floodplain Mapping Update: Jefferson County

June 21 – Montana City | June 23 – Boulder

Public Informational Meetings

# Who is Involved

## JEFFERSON COUNTY

**Megan Bullock**

County Sanitarian and Floodplain Administrator



**JEFFERSON COUNTY**  
MONTANA

## CITY OF BOULDER

**Ellen Harne**

City Clerk and Floodplain Administrator



## MONTANA DEPARTMENT OF NATURAL RESOURCES & CONSERVATION (DNRC)

**Tiffany Lyden**

Mapping Outreach Specialist

**Doug Brugger**

Civil Engineering Specialist

**Steve Story**

Bureau Chief



## PIONEER TECHNICAL SERVICES

**Jon Jupka**

Project Manager



FEMA



**Michael Baker**  
INTERNATIONAL



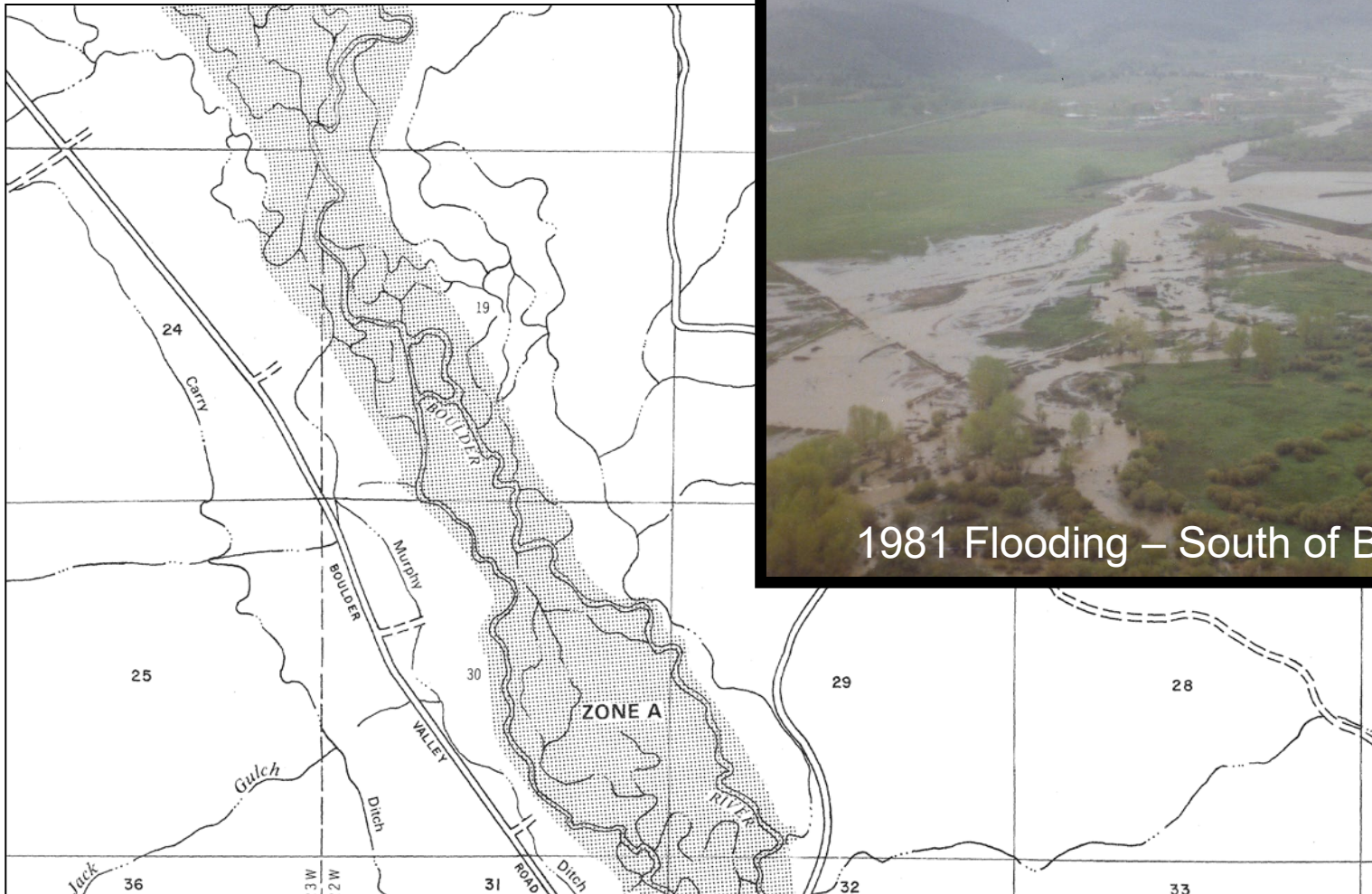


# 2022 Flooding in Montana



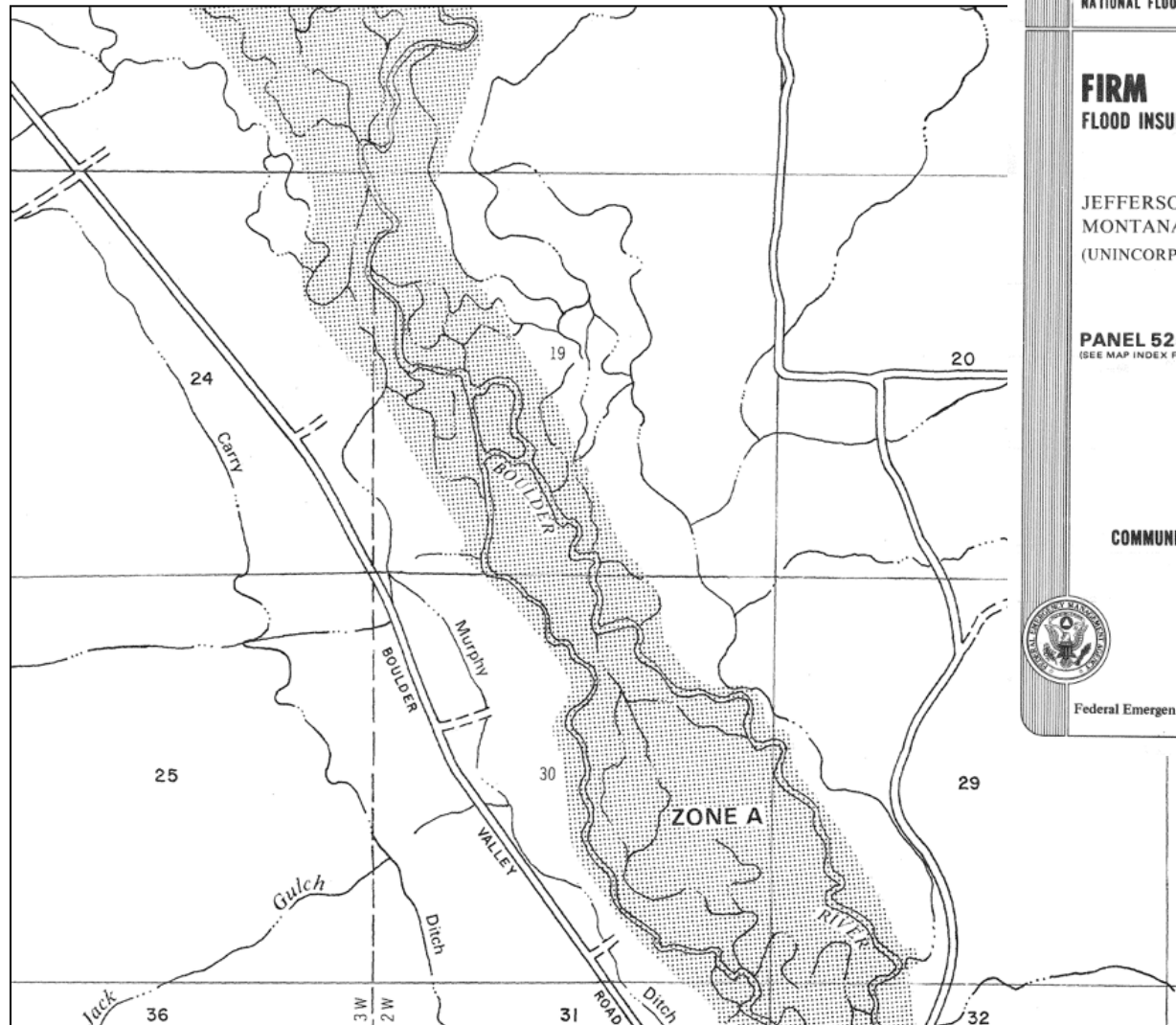


# Identifying Risk Through Mapping



1981 Flooding – South of Boulder

# Flood Insurance Rate Maps



NATIONAL FLOOD INSURANCE PROGRAM


**FIRM**  
FLOOD INSURANCE RATE MAP

JEFFERSON COUNTY,  
MONTANA  
(UNINCORPORATED AREAS)

**PANEL 525 OF 600**  
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER  
300154 0525B

EFFECTIVE DATE:  
JUNE 17, 1986



Federal Emergency Management Agency

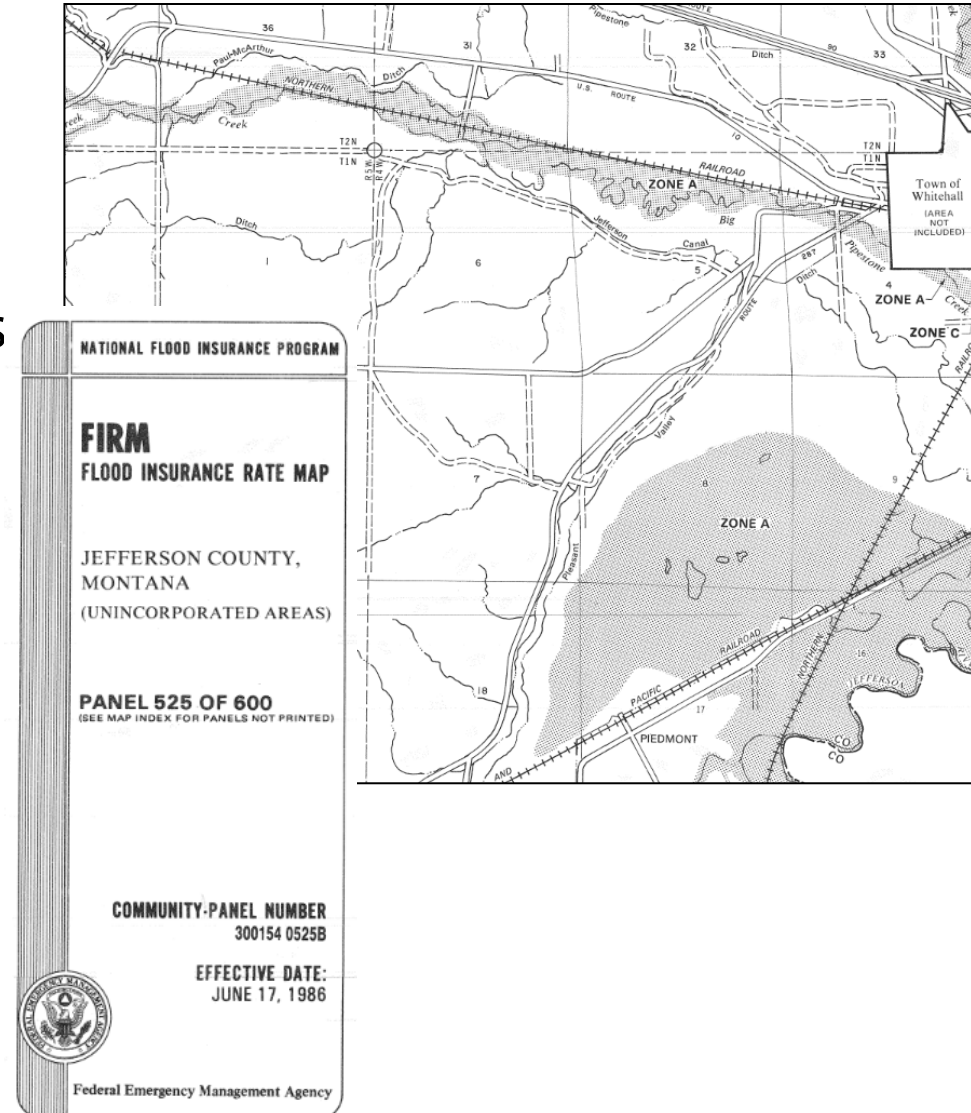
100 year flood  

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1% annual chance  
flood

# Flood Insurance Rate Maps

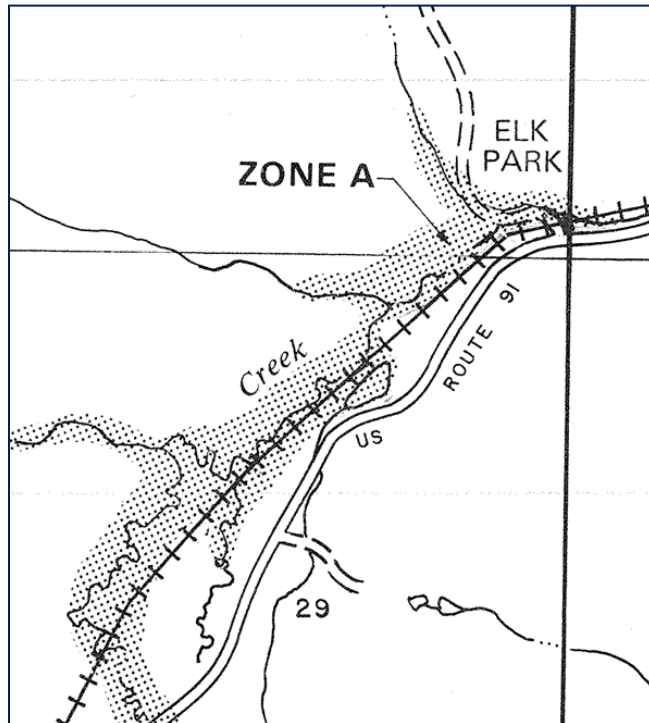
- Indicate areas of flood risk
- Used for:
  - Local floodplain regulations
  - Septic permitting/Planning
  - Lenders/Mortgages
  - Emergency planning
- Need periodic updating





# Jefferson County - Existing Floodplain Maps

- 1978 Flood Hazard Maps
- 1986 FEMA Flood Insurance Rate Maps
  - Coarse, Generalized Mapping
  - No flood elevations or other information



- Northern 1/3 of county:
  - No existing floodplain maps

# Jefferson County Floodplain Mapping Update

*JEFFERSON COUNTY  
Board of Commissioners*

*P.O. Box H    Boulder, Montana 59632  
Phone: (406) 225-4025*

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June 7, 2017

Steve Story, PE, CFM  
State Floodplain Engineer  
MT DNRC  
Water Operations Bureau  
1924 9<sup>th</sup> Avenue  
Helena, Montana 59620-1601

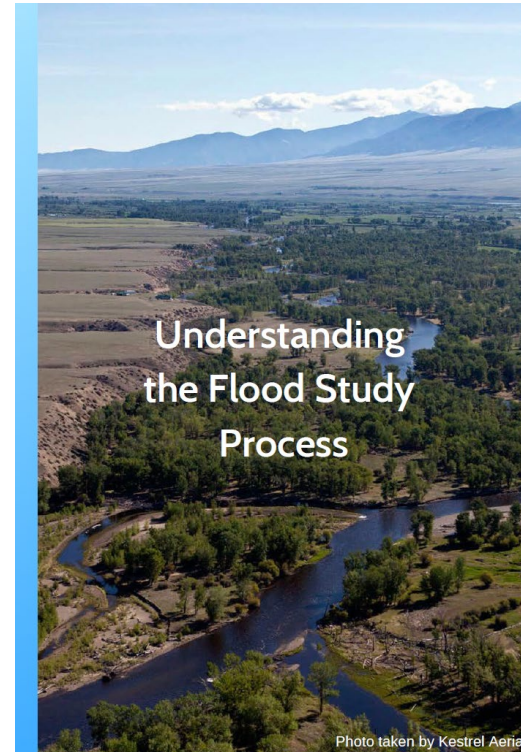
RE: Request of Assistance for Updated Floodplain Studies

Dear Steve,

Jefferson County utilizes 1986 Federal Insurance Rate Maps showing Approximate Zone A areas for current floodplain maps. Without elevations for the base flood, the burden of determining these elevations becomes the landowners. Over the years many landowners have applied to FEMA for a Letter of Map Amendment and have been successful in demonstrating portions of their property are not within Approximate Zone A areas. In the north end of the County, the only resource we have is aerial photos from the flood of 1981; however, we recently were informed these maps can not be used for regulatory purposes.

Jefferson County is committed to protecting surface water, managing flood risks and participating in the Federal Flood Insurance Program. Detailed studies would be beneficial to County residents and current information would allow for better regulation of flood prone areas.

Thank you for the opportunity to participate in this effort to update Floodplain Studies in Jefferson County. Having better available data will provide much needed support we've waited a long time for.



- Update existing 1986 FEMA floodplain maps in county
- Flood elevations and better data
- New studies and FEMA floodplain maps on: Prickly Pear Creek, Buffalo Creek, Clancy Creek, Warm Springs Creek



# Draft Maps – ready for review

## Madison-Ruby-Jefferson Watersheds and Jefferson County Floodplain Mapping Update

### 1 Draft Floodplain Mapping

(+) and (-) signs.

The flood hazard information in this section is currently a **draft** product. It only includes Madison County, Jefferson County, and selected areas pertaining to this study in Broadwater and Gallatin Counties. The draft floodplain designations are undergoing public review and are based on updated flood study information.

To see the current FEMA mapping, go to section 2.

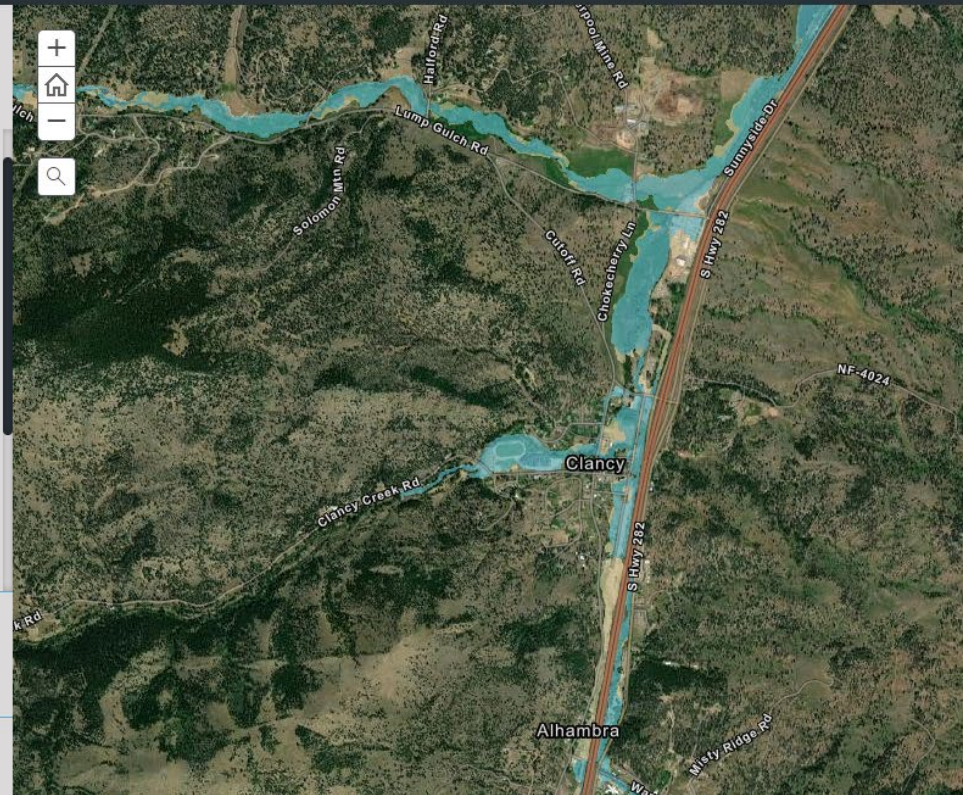


### 2 Current FEMA Floodplain Mapping

### 3 Compare Draft 100-year Floodplain Map to Current FEMA Floodplain Map

### 4 Compare Draft Floodway Map to Current FEMA Floodway Map

### 5 Estimated Ground Elevation for Buildings



### Draft Maps:

- Represent study results of 100 year Floodplain (1% annual chance)
- Will be used to produce Preliminary FEMA Maps

## Jefferson County Flood Maps Update

Jefferson County has been working with the Federal Emergency Management Agency (FEMA) and Montana Department of Natural Resources and Conservation (DNRC) to produce new and updated 100-year floodplain maps. The project includes updating all the existing mapped floodplains in the county, and producing new floodplain maps for portions of Prickly Pear Creek and tributaries in the northern part of the county. [View study extents here.](#)

Updated floodplain maps will depict the latest, most accurate flood risk data, and will eventually result in updated FEMA floodplain maps. Most of the existing FEMA floodplain maps in Jefferson County are based off of data from the 1970s. For more information see: [Floodplain FAQs](#) [Flood Study Process](#)

### Public Open House Meetings

**June 21, 2022 in Montana City** | 6:30-8:30pm | Montana City Fire Station | 1192 Hwy 282  
(to listen in remotely via zoom: <https://ogilvy.zoom.us/j/92224421559> Passcode: 7477)  
**June 23, 2022 in Boulder** | 6:30-8:30pm | County Fairgrounds Hall | 21 N. Whitetail Rd  
(to listen in remotely via zoom: <https://ogilvy.zoom.us/j/93249435883> Passcode: 7477)

Jefferson County and Montana DNRC are hosting June public open house meetings about draft floodplain maps in the northern and central portion of Jefferson County.

Additional public meetings will be scheduled later in summer to share draft floodplain maps for the southern part of Jefferson County.

### View Draft Maps

**Draft Map Viewer**

[click here](#)

\*please be patient while the data loads on the viewer\*

The draft study information and maps need to go through a lengthy technical and public review process before being finalized. When finalized, new maps could have effects on some property owners in mapped floodplains. See: [100 year Floodplain](#) [Floodway \(within 100 year floodplain\)](#) [500 year Floodplain](#)

### View Draft Reports

#### Hydrology Reports

[Boulder R & Prickly Pear Cr mainstems & tributaries; and Jefferson R tributaries](#) - prepared by Pioneer

### More Info

[Floodplain FAQs](#)

[Flood Study Process](#)

### Jefferson County

Megan Bullock  
Floodplain Administrator  
(406) 225-4126

[email](#)

### City of Boulder

Ellen Harné  
Floodplain Administrator  
(406) 225-9629

[email](#)

### DNRC Contacts

Nadene Wadsworth  
DNRC Outreach Specialist  
(406) 444-6732

[email](#)

Tiffany Lyden  
DNRC Outreach Specialist  
(406) 444-0599




[email](#)



# Draft Maps – Ready for review

[www.floodplain.mt.gov/jefferson](http://www.floodplain.mt.gov/jefferson)

## Madison-Ruby-Jefferson Watersheds and Jefferson County Floodplain Mapping Update

A Story Map   

### 1 Draft Floodplain Mapping

To search by address, click the magnifying glass to the right. To navigate, use a mouse or the (+) and (-) signs.

The flood hazard information in this section is currently a **draft** product. It only includes Madison County, Jefferson County, and selected areas pertaining to this study in Broadwater and Gallatin Counties. The draft floodplain designations are undergoing public review and are based on updated flood study information.

To see the current FEMA mapping, go to section 2.

-  100-year Floodplain (1% Annual Chance)
-  Floodway
-  500-year Floodplain (0.2% Annual Chance)

### 2 Current FEMA Floodplain Mapping

### 3 Compare Draft 100-year Floodplain Map to Current FEMA Floodplain Map

### 4 Compare Draft Floodway Map to Current FEMA Floodway Map

### 5 Estimated Ground Elevation for Buildings





# Current Maps

[www.floodplain.mt.gov/jefferson](http://www.floodplain.mt.gov/jefferson)

## Madison-Ruby-Jefferson Watersheds and Jefferson County Floodplain Mapping Update

A Story Map

1 Draft Floodplain Mapping

2 Current FEMA Floodplain Mapping

This section ONLY reflects the current FEMA floodplain mapping from the official FEMA Flood Insurance Rate Maps for Jefferson County and portions of Madison, Broadwater, and Gallatin Counties. It does NOT reflect Madison County's Floodprone Maps or any other local maps used for local floodplain regulation or planning. The FEMA floodplain boundaries and information were digitized from current FEMA maps. This viewer is not intended to be used for regulatory purposes and should only be used as a visualization tool. The official FEMA maps and other flood hazard products are available from the FEMA Map Service Center online at: <http://www.msc.fema.gov>

100-year Floodplain (1% Annual Chance)

Floodway

3 Compare Draft 100-year Floodplain Map to Current FEMA Floodplain Map

4 Compare Draft Floodway Map to Current FEMA Floodway Map

5 Estimated Ground Elevation for Buildings








# Proposed Changes

[www.floodplain.mt.gov/jefferson](http://www.floodplain.mt.gov/jefferson)

## Madison-Ruby-Jefferson Watersheds and Jefferson County Floodplain Mapping Update


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1 Draft Floodplain Mapping


2 Current FEMA Floodplain Mapping

3 Compare Draft 100-year Floodplain Map to Current FEMA Floodplain Map

This section compares the proposed 100-Year (1% Annual Chance) floodplain mapping to the current FEMA 100 year (1% Annual Chance) Floodplain maps in Jefferson County, and portions of Madison, Broadwater, and Gallatin Counties. The 100-Year Floodplain is considered to have a HIGH flood risk, it is the area expected to be inundated by a flood event having a 1% chance of being equaled or exceeded in any given year.

 Land Removed from FEMA Floodplain

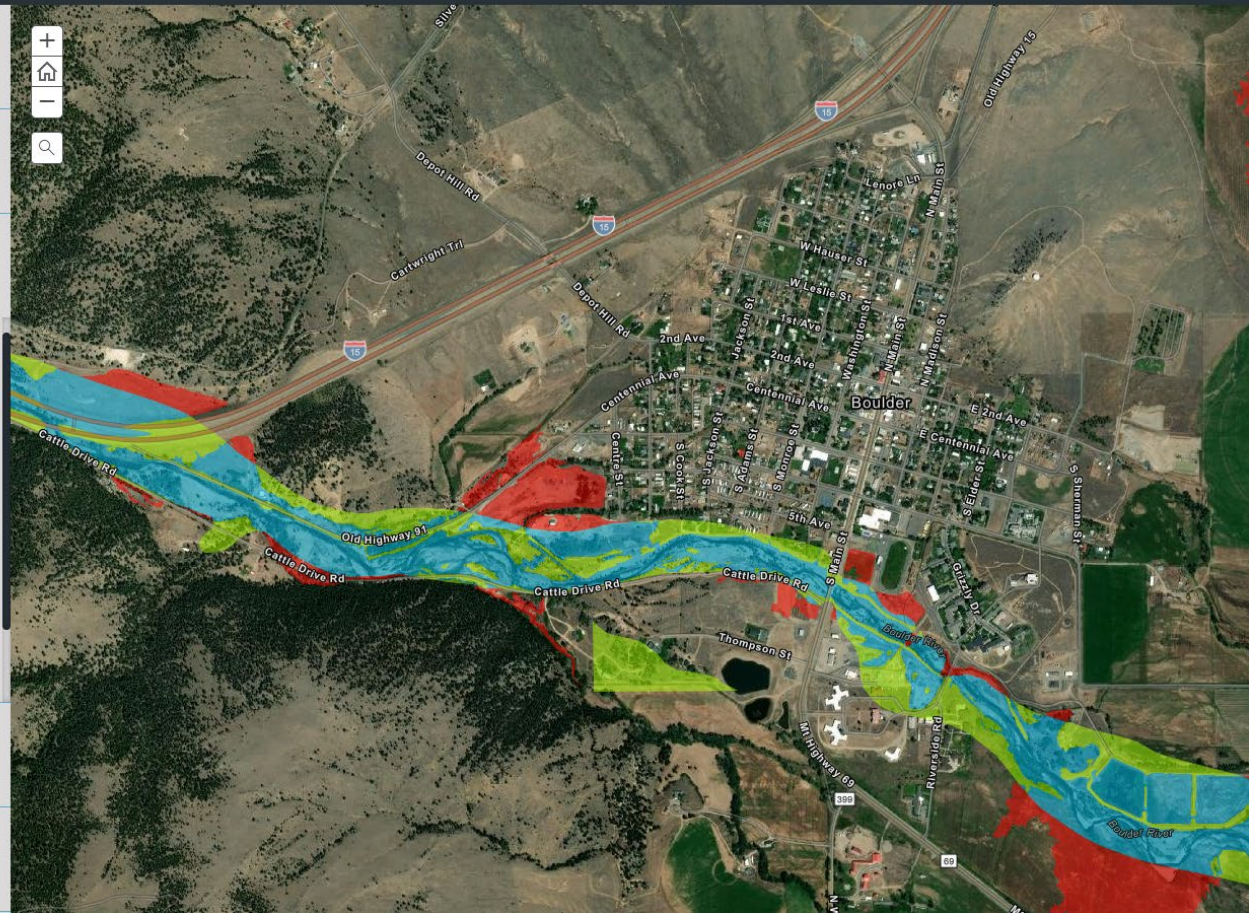
 Land Added to FEMA Floodplain

 No Change to FEMA Floodplain

 No Current FEMA Floodplain, Land Added to FEMA Floodplain

4 Compare Draft Floodway Map to Current FEMA Floodway Map

5 Estimated Ground Elevation for Buildings







# Proposed Changes

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## Madison-Ruby-Jefferson Watersheds and Jefferson County Floodplain Mapping Update





A Story Map  

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-  Land Removed from FEMA Floodplain
-  Land Added to FEMA Floodplain
-  No Change to FEMA Floodplain
-  No Current FEMA Floodplain, Land Added to FEMA Floodplain

4 Compare Draft Floodway Map to Current FEMA Floodway Map

5 Estimated Ground Elevation for Buildings






# Draft Maps – Ready for review

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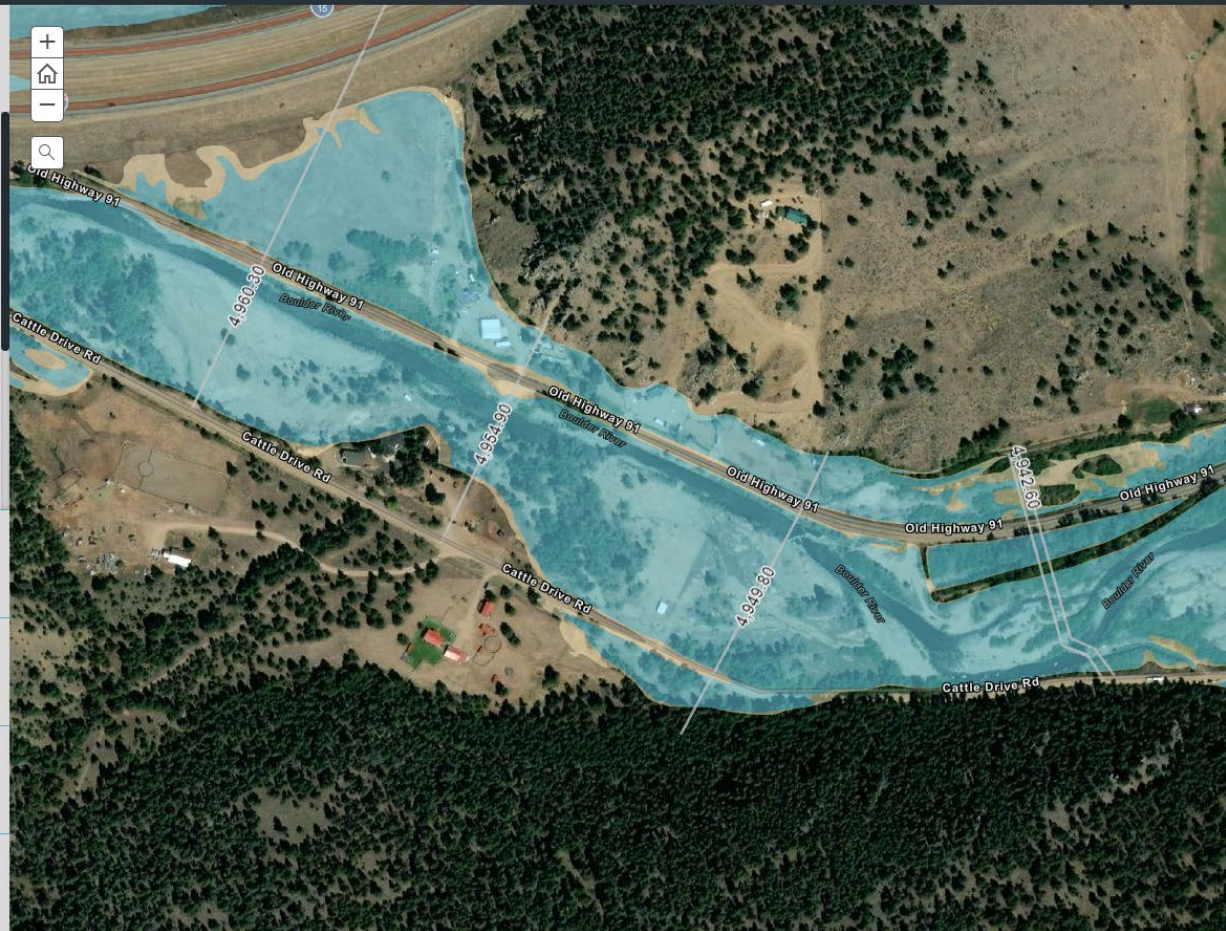
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-  Floodway
-  500-year Floodplain (0.2% Annual Chance)

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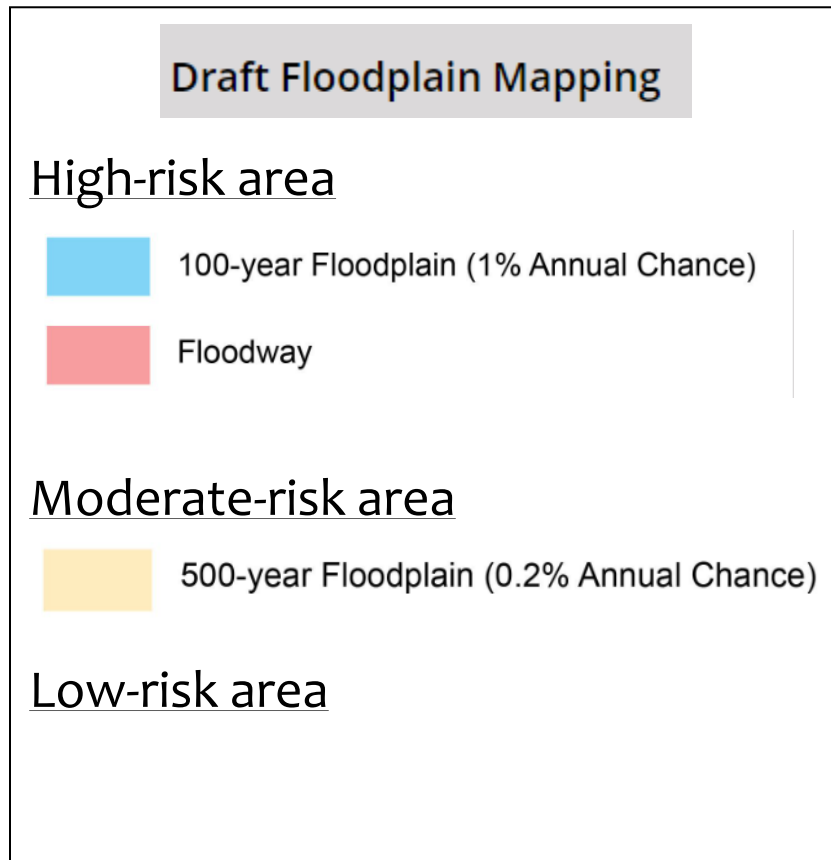
### 5 Estimated Ground Elevation for Buildings



# Identify Your Flood Risk

[www.floodplain.mt.gov/jefferson](http://www.floodplain.mt.gov/jefferson)

Know where your property or structure is in relation to the draft floodplain boundaries and flood risk zones



View the draft maps at home:  
[www.floodplain.mt.gov/jefferson](http://www.floodplain.mt.gov/jefferson)



# Informational Materials

[www.floodplain.mt.gov/jefferson](http://www.floodplain.mt.gov/jefferson)

## JEFFERSON COUNTY FLOOD MAP UPDATES

[www.floodplain.mt.gov/jefferson](http://www.floodplain.mt.gov/jefferson)

### Owning property in a 100-YEAR FLOODPLAIN

A 100-YEAR FLOODPLAIN (1% Annual Chance Floodplain) is considered that is expected to be inundated by a 100-Year Flood, an event having a 1% chance of occurring in any given year. The 100-Year Flood is also referred to as a 1% Annual Chance Flood.

### DEVELOPMENT REGULATIONS

Jefferson County, City of Boulder, and the Town of Whitehall require Floodplain Development Permits for development in the 100-Year Floodplain (1% Annual Chance Floodplain) to protect human life and property.

- New building construction must obtain a Floodplain Development Permit.
- New residential construction must be elevated 2 feet above the 100-Year Flood Elevation (Base Flood Elevation).
- Improvements to existing structures must obtain a Floodplain Development Permit. Existing structure greater than 50% of a structure's market value (a Substantial Improvement) must be brought into compliance with floodplain regulations.
- Other federal, state, and local regulations may apply.

Draft floodplain maps are going through review and are not yet effective. It is important to review your community's floodplain regulations with County, City, or Town staff to understand updates on proposed construction projects in a mapped floodplain.

### INSURANCE REQUIREMENT

If you own a building in an area that will be newly mapped into a 100-Year Floodplain, contact your insurance agent or lender about flood insurance.

Lenders will typically reevaluate their loans to reassess flood risk when a new flood map or revision goes effective. When this happens, your lender will require you to carry flood insurance if you own a building that is located in a mapped floodplain that is above the flood elevation or outside of the 100-Year Floodplain.

There can be some cost-saving options available if you are newly mapped into a floodplain. Contact your insurance agent or lender as early as possible to find the best flood insurance comparison of Newly Mapped rates, Grandfathered rates, etc.

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Nadene Wadsworth  
MT Dept of Natural Resources and Conservation  
nadene.wadsworth@mt.gov  
406.444.6732

## JEFFERSON COUNTY FLOOD MAP UPDATES

[www.floodplain.mt.gov/jefferson](http://www.floodplain.mt.gov/jefferson)

### Owning property in a FLOODWAY

A FLOODWAY is the area within a 100-Year Floodplain that must be kept open so that the 100-Year Flood (1% Annual Chance Flood, Base Flood) can be discharged without increasing flood heights. The Floodway will usually see the highest water inundation during a 100-Year Flood event.

### DEVELOPMENT REGULATIONS

Jefferson County, City of Boulder, and the Town of Whitehall strictly regulate development in Floodways to protect human life and property by ensuring that there are no increases in flood elevations.

- In accordance with each community's Floodplain Regulations:
- New building construction is not permitted in the Floodway.
  - Improvement to existing structures in a Floodway must obtain a Floodplain Development Permit.

### INSURANCE REQUIREMENT

If you own a building in an area that will be newly mapped into a 100-Year Floodplain (including Floodway), contact your insurance agent or lender about flood insurance.

Lenders will typically reevaluate their loans to reassess flood risk when a new flood map or revision goes effective. When this happens, your lender will require you to carry flood insurance if you own a building that is located in a mapped floodplain, unless you can prove that the building is above the flood elevation or outside of the 100-Year Floodplain.

There can be cost-saving options available if you are newly mapped into a floodplain. Contact your insurance agent or lender as early as possible to find the best flood insurance comparison of Newly Mapped rates, Grandfathered rates, etc.

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## JEFFERSON COUNTY FLOOD MAP UPDATES

[www.floodplain.mt.gov/jefferson](http://www.floodplain.mt.gov/jefferson)

### Owning property in a 500-YEAR FLOODPLAIN

A 500-YEAR FLOODPLAIN (0.2% Annual Chance Floodplain) is considered to have a MODERATE flood risk. It is an area that is expected to be inundated by a 500-Year Flood, a flood event having a 0.2% chance of being equaled or exceeded in any given year. The 500-Year Flood is also referred to as a 0.2% Annual Chance Flood.

### DEVELOPMENT REGULATIONS

Jefferson County, City of Boulder, and the Town of Whitehall do not regulate development in the 500-Year Floodplain (0.2% Annual Chance Floodplain) although flooding is still possible in this area.

New construction and building improvements may occur in the 500-Year Floodplain without a Floodplain Development Permit. Other federal, state, and local regulations may apply.

If your property has areas of both 100-Year and 500-Year Floodplain, proposed projects may require a Floodplain Development Permit depending on exactly where the development will occur. It is important to discuss the location of any development with County, City or Town staff to understand the impacts of the community's floodplain regulations and flood map updates on proposed projects in or near a mapped 100-Year Floodplain.

### INSURANCE REQUIREMENT

If you own a building in a 500-Year Floodplain (0.2% Annual Chance Floodplain), you are considered to be at a moderate risk of flooding. It is therefore recommended that you purchase flood insurance even if your lender does not require you to do so in order to protect your investment.

Lenders will typically review their loans to reassess flood risk when a new flood map or revision goes effective. When this happens, if your building is located in a 500-Year Floodplain, your lender might choose to require you to carry flood insurance and/or provide building elevation documentation to prove your building is above the flood elevation.

Some property owners may not see any insurance changes with this mapping update. Talk to your lender or insurance agent early if you are considering purchasing flood insurance in order to find the best option for you.

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Unlike in a 100-Year Floodplain, a Floodplain Development Permit is not required for development in a 500-Year Floodplain.

Your lender can require flood insurance for a building they are financing regardless of where the building is located.



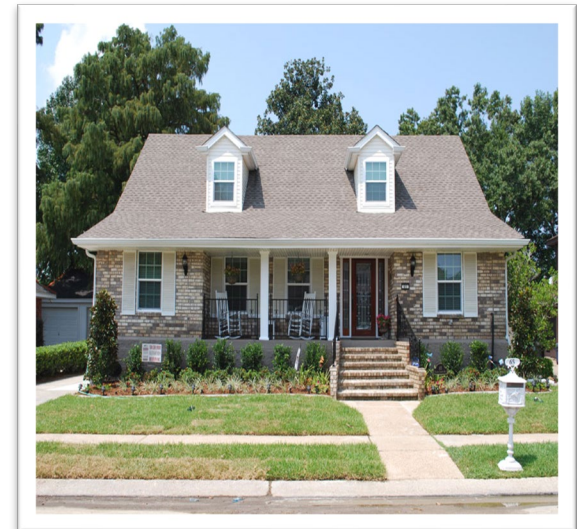
# Development Regulations

**Counties and Towns** have floodplain regulations that regulate development within the 100-year floodplain.

**Floodplain permits** are required for any manmade activities including construction and modifications to existing structures.

**New** construction and additions- elevated 2' **Improvements** and additions to existing structures  $\geq$  50% of building's value, will require the entire structure to be brought into compliance.

No new structures and limited development is allowed in the **Floodway**





# Flood Insurance

**Flood insurance** is mandatory for buildings with a federally backed loan in a high-risk area.

**Flood insurance** is not mandatory in a lower risk areas but is highly recommended. Lenders can always require insurance in any area.

Landowners can buy **flood insurance** to protect their assets; renters can buy **flood insurance** for their contents.

**Flood insurance** is the best form of personal risk management and provides important economic protection for flooding.



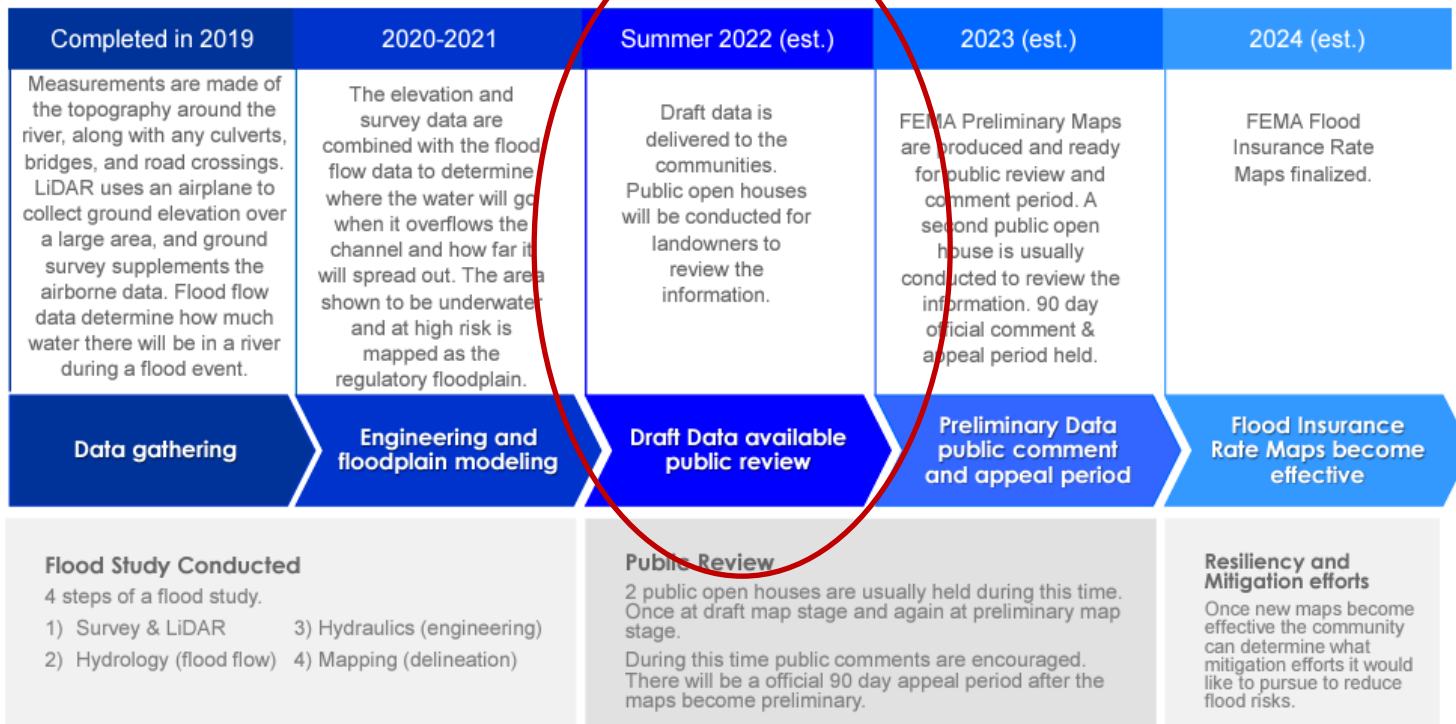
# Estimated Timeline

[www.floodplain.mt.gov/jefferson](http://www.floodplain.mt.gov/jefferson)



## Project Timeline

### Jefferson County Floodplain Maps Update





# Thank You | Staff You Can Speak With

## JEFFERSON COUNTY

**Megan Bullock**

County Sanitarian/Floodplain Administrator



**JEFFERSON COUNTY**  
MONTANA

## MONTANA DEPARTMENT OF NATURAL RESOURCES & CONSERVATION (DNRC)

**Tiffany Lyden**

Mapping Outreach Specialist

**Doug Brugger**

Civil Engineering Specialist

**Steve Story**

Bureau Chief



## PIONEER TECHNICAL SERVICES

**Jon Jupka**

Project Manager



# Remote Attendees – Post-Meeting Follow Up

## MONTANA DEPARTMENT OF NATURAL RESOURCES & CONSERVATION

**Tiffany Lyden**

Mapping Outreach Specialist

406-444-0599

[tlyden@mt.gov](mailto:tlyden@mt.gov)



Friday, June 24:            9-11am 12-4pm

Other days/times as needed – just email or call anytime

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## JEFFERSON COUNTY

**Megan Bullock**

County Sanitarian/Floodplain Administrator

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[mbullock@jeffersoncounty-mt.gov](mailto:mbullock@jeffersoncounty-mt.gov)



# Thank you

