

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations (BFEs)** and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) Report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS Report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only to landward of 0.0 North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal base flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study Report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study Report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study Report for information on flood control structures for this jurisdiction.

The projection used in the preparation of this map was Universal Transverse Mercator (UTM), zone 17N. The horizontal datum was NAD 83, GRS 1980 spheroid. Differences in datum, spheroid, projection, or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geospatial General Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geospatial Survey website at <http://www.ngs.noaa.gov> or contact the National Geospatial Survey at the following address:

NGS Information Services
NOMA, NIN3312
National Geospatial Survey
55MHC-3, #5202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geospatial Survey at (301) 713-3142, or visit its website at <http://www.ngs.noaa.gov>.

Base map information shown on this FIRM was derived from NAD Orthophotography produced with a one-meter ground resolution from photography dated 2011.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify correct corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels, community map repository addresses, and a listing of Community Tables containing National Flood Insurance Program rates for each community as well as a listing of the panels on which each community is located.

For information on available products associated with this FIRM, visit the **Map Service Center (MSC)** website at <http://map.fema.gov>. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the MSC website.

If you have **questions** about this map, how to order products, or the National Flood Insurance Program in general, please call the **FEMA Map Information Exchange (FMIX)** at 1-877-FEMA-MAP (1-877-336-2627); or visit the FEMA website at <http://www.fema.gov/businessinfo>.

This map may reflect more detailed or up-to-date stream channel configurations than those shown on the previous FIRM. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations and improved topographic data. The **profile baselines** depicted on this map represent the hydraulic modeling baselines that match the flood profiles and floodway data tables if applicable, or the FIS report. As a result, the profile baselines may deviate significantly from the new base map channel representation and may appear outside the floodplain.

Missoula County Vertical Datum Offset Table

Flooding Source	Vertical Datum Offset (ft)	Flooding Source	Vertical Datum Offset (ft)
Big Lost River	0.5	Lower Warm Creek	1.5
Blackfoot River	0.5	Warm Creek	1.5
Clark Fork	3.0	Pattee Creek	3.0
Chippewa River	1.7	Pattee Creek	3.0
Grant Creek	0.5	Rock Creek	3.0
Lost Creek	3.0		

Example: To convert Clark Fork elevations to NAVD 88, 3.0 feet were added to the NAVD 29 elevations.

PANEL INDEX



Panel Not Printed

Missoula County
Unincorporated Areas
300048

Missoula County
Unincorporated Areas
300048

City of Missoula
300049

Missoula County
Unincorporated Areas
300048

LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (200-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. Flood zones are designated as follows: Zone A, Zone AE, Zone AH, Zone AO, Zone AR, Zone AR9, Zone V, and Zone VE. The base flood elevation is the water surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevation determination.
- ZONE AE** Base Flood Elevation determined.
- ZONE AH** Flood depths of 1 to 2 feet (usually areas of marsh); base flood elevations determined.
- ZONE AO** Flood depths of 1 to 2 feet (usually areas of marsh); base flood elevations determined. For areas of marsh, flood depths are also determined.
- ZONE AR** Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently destroyed. Zone AR includes areas that the water flood control system is being restored to protect protection from the 1% annual chance flood.
- ZONE AR9** Areas to be protected from the 1% annual chance flood by a flood control system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevation 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 encroachments 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 average areas less than 1 square mile, and areas protected by levees from the 1% annual chance flood.

OTHER AREAS

ZONE D Areas determined to be outside the 0.2% annual chance floodplain.

ZONE F Areas in which flood hazards are unrecovered, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

ON HIGHWAYS PROTECTED AREAS (OHAs)

CBRS areas and OHAs are normally located within or adjacent to Special Flood Hazard Areas.

1% Annual Chance Floodplain Boundary

0.2% Annual Chance Floodplain Boundary

Floodway boundary

Zone D boundary

CBRS and OHA boundary

Boundary enclosing Special Flood Hazard Area Zones and boundary enclosing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities

Base Flood Elevation line and values; elevation in feet

Base Flood Elevation value where uniform within zone; elevation in feet

Referenced to the North American Vertical Datum of 1988

Zone A boundary

Zone AE boundary

Zone AH boundary

Zone AO boundary

Zone AR boundary

Zone AR9 boundary

Zone V boundary

Zone VE boundary

Map Repository

Refer to Map Repository for map index

Effective Date of Community Flood Insurance Rate Map

July 6, 2015

Effective Date of Revision

July 6, 2015 - to change Base Flood Elevations, to update community limits, to update flood and wave action, to change Special Flood Hazard Areas, to incorporate previously issued Letters of Map Change and to reflect additional topographic information

For information on how to obtain maps and/or community mapping, refer to the Community Map Repository located at the Flood Insurance Study report for this jurisdiction. To determine if flood insurance is available in this community, contact your insurance agent or visit the National Flood Insurance Program at 1-800-623-6622.



MAP SCALE 1" = 1000'
800 1000 2000
0 100 200 300 400
Miles Feet

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 1220E

FIRM

FLOOD INSURANCE RATE MAP

MISSOULA COUNTY, MONTANA

AND INCORPORATED AREAS

PANEL 1220 OF 1900
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

COMMUNITY

COMMUNITY	NUMBER	DATE	SHEET
MISSOULA CITY OF	300049	1220	1
MISSOULA COUNTY, Unincorporated Areas	300048	1220	2

NOTICE TO USER: The Map Number shown below should be used when placing map orders. The Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
300049C1220E

MAP REVISED
JULY 6, 2015

Federal Emergency Management Agency

