LARIMER COUNTY
ENGINEERING DEPARTMENT

FLOODPLAIN DEVELOPMENT GUIDE



SECTION 4: FLOODPLAIN MAPS





4. FLOODPLAINS & FLOOD ZONES

Regulatory Floodplains in Larimer County

Floodplains are areas which are prone to flooding and typically located along river corridors or other water bodies. Regulatory floodplains are those for which Larimer County enforces regulations for various forms of development and are often associated with a specific level of flood risk. In Larimer County, regulatory floodplains generally include the areas which would be inundated during flood events associated with a 1% annual chance of occurrence (1% ACE) and a 0.2% annual chance of occurrence (0.2% ACE), commonly referred to as the 100-year and 500-year floods, respectively.

For purposes of regulation, Larimer County has established a zoning district which includes all its regulatory floodplains called the "Floodplain Overlay District," or FPO District. There are several different regulatory floodplains in the FPO District, including: the FEMA Floodplain, Best Available Floodplain, Municipal Floodplain, Poudre GMA Floodplain, and Larimer County Flood-Prone Areas. These floodplains have been established by different sources and often contain unique floodplain regulations. A brief description of each is provided below:

- 1. FEMA Floodplain: this floodplain includes the areas within the Special Flood Hazard Areas (SFHAs) designated by FEMA on its Flood Insurance Rate Maps (FIRMs).
- 2. Best Available Floodplain: this floodplain includes the areas within the 1% ACE or 0.2% ACE flood zones identified by a new floodplain study which has not yet been formally approved by FEMA. These areas are defined by draft or preliminary flood hazard information which meet the following criteria:
 - a. The draft or preliminary flood hazard information is supplied by FEMA, the Colorado Water Conservation Board (CWCB), or another source.
 - b. The draft or preliminary flood hazard information is more restrictive than the FEMA Floodplain.
 - c. The draft or preliminary information has been approved by CWCB
- 3. Municipal Floodplain: this floodplain includes areas within flood zones identified by incorporated cities and towns within Larimer County.
- 4. Cache La Poudre Growth Management Area Floodplain (Poudre GMA Floodplain): The Poudre GMA Floodplain includes the areas within the FEMA Floodplain and Best Available Floodplain for which the Cache La Poudre River is the flooding source and within the Fort Collins Growth Management Area (GMA).

5. Larimer County Flood-Prone Areas (FPAs): this floodplain includes other areas in Larimer County which are designated as prone to flooding by resolution of the Larimer County Board of Commissioners (BCC).

How Can I View the Floodplains in Larimer County?

Regulatory floodplains can be viewed using Larimer County's online floodplain map. Follow the instructions below to view the floodplain information for your property:

- 1. Navigate to the Larimer County Floodplains Website at www.larimer.org/engineering/floodplains
- 2. Click the "Online Floodplain Map Larimer County Land Information Locator" button near the top of the screen.
- 3. Type your address in the search bar at the top right of the screen and click the search icon . The search results will appear on the left side of the screen. If your search has multiple results or your parcel does not automatically appear on the map, click the appropriate parcel from the list and the map will zoom into your property.
- 4. Click the "Flood" button | near the top of the screen if floodplain information is not already displayed.
- 5. Click the "Layer List" icon near the top left of the screen. A list of map layers will appear below.
- 6. Scroll down to the "Floodplain" layer. Check the box next to "2021 FEMA (Preliminary)" to see the preliminary floodplain layer for your area. You can compare this to the current floodplain for your property by checking the "FEMA Floodplain (Current Effective)" on or off.
- 7. To view the flood zone legend, click the "+" to the left of the "2021 FEMA (Preliminary)" layer or the "FEMA Floodplain (Current Effective)" layer. Scroll down to the "FEMA Floodplains" sublayer and click the button. The flood zone legend will appear below.

What are Flood Zones and How Do They Impact My Property?

Each floodplain includes a variety of flood zones which have unique floodplain regulations and requirements. The following descriptions provide a short summary of each flood zone and typical regulations which may apply within them:

Zone AE (Floodway), 1% Annual Chance Floodway

This zone is associated with the highest flood risk in Larimer County and often carries the greatest flooding depths & velocities. This zone must be reserved from development and typically experiences the greatest flooding depths and velocities. New structures are prohibited in this zone and other forms of development are highly restricted. Base flood elevations (BFEs) are determined in these zones.

Typical floodplain regulations in this zone may include:

- New structures are prohibited
- Most uses are prohibited
- No-rise hydraulic analysis and PE certification required

Zone AE (Flood Fringe), 1% Annual Chance Flood Hazard

This zone includes areas that would be flooded if a 100-year flood occurred but does not fall within the floodway zone. This zone is typically on the "fringe" of the 100-year floodplain (hence the name) and is determined using detailed survey and hydraulic analyses. Base flood elevations (BFEs) are determined in these zones.

Typical floodplain regulations in this zone may include:

- Structures must be designed to reasonably protect from flood damage
- Lowest floor of structures and mechanical equipment must elevated at least 18" above BFE
- FEMA Elevation Certificate(s) may be required during and/or after construction
- Use restrictions exist if within the Poudre GMA

Zone A, 1% Annual Chance Flood Hazard

This zone includes areas that would be flooded if a 100-year flood occurred but does not typically have a delineated floodway. This floodplain is determined using approximate methods of hydraulic analysis and without the use of manual surveying techniques. Base flood elevations often have not been determined in these areas.

Typical floodplain regulations in this zone may include:

- Structures must be designed to reasonably protect from flood damage
- Floodway delineation required if a structure is proposed within 100' from channel centerline
- BFE must be determined by a professional engineer (PE) or County Engineer

- Lowest floor of structures and mechanical equipment must elevated at least 18" above BFE
- FEMA Elevation Certificate(s) may be required during and/or after construction
- Use restrictions exist if within Poudre GMA

Zone AH, 1% Annual Chance Flood Hazard

This zone includes areas that would be flooded if a 100-year flood occurred but mainly experiences shallow flooding depths (1-3 feet). Base flood elevations have been determined in these areas at selected intervals.

Typical floodplain regulations in this zone may include:

- Structures must be designed to reasonably protect from flood damage
- Lowest floor of structures and mechanical equipment must elevated at least 18" above BFE
- FEMA Elevation Certificate(s) may be required during and/or after construction
- Use restrictions exist if within Poudre GMA

Zone AO, 1% Annual Chance Flood Hazard

This zone includes areas that would be flooded if a 100-year flood occurred but mainly experiences shallow flooding depths (1-3 feet). Flooding depths are usually provided in lieu of base flood elevations.

Typical floodplain regulations in this zone may include:

- Structures must be designed to reasonably protect from flood damage
- Lowest floor of structures must elevated at least 18" above the flooding depth
- FEMA Elevation Certificate(s) may be required during and/or after construction
- Use restrictions exist if within Poudre GMA

Zone X, 0.2% Annual Chance Flood Hazard [a.k.a. Zone X (Shaded)]

This zone includes areas that would be flooded if a 500-year flood occurred.

Typical floodplain regulations in this zone may include:

- Structures must be designed to reasonably protect from flood damage
- Use restrictions exist if within Poudre GMA

 Critical facility regulations apply in Poudre GMA for essential service facilities and at-risk population facilities

Zone X, Area with Reduced Risk Due to Levee [a.k.a. Zone X (Shaded Protected by a Levee)]

This zone includes areas that would be flooded if a 500-year flood occurred but has a reduced risk of flooding due to levee protection.

Typical floodplain regulations in this zone may include:

- Structures must be designed to reasonably protect from flood damage
- Use restrictions exist if within Poudre GMA
- Critical facility regulations apply in Poudre GMA for essential service facilities and at-risk population facilities

Zone X, 1% Depth Less Than 1 Foot

This zone includes areas that would be flooded if a 100-year flood occurred but mainly experiences a depth less than 1 foot.

Typical floodplain regulations in this zone may include:

- Structures must be designed to reasonably protect from flood damage
- Lowest floor of structures and mechanical equipment must elevated at least 18" above BFE
- FEMA Elevation Certificate(s) may be required during and/or after construction
- Use restrictions exist if within Poudre GMA

Zone X, Area of Minimal Flood Hazard

This area does not have a FEMA-designated floodplain.

Area Not Included

This area does not have a FEMA-designated floodplain.

How are the Flood Zones Displayed on the Online Floodplain Map?

The County's Online Floodplain Map uses a variety of colors and patterns to show the different flood zones in a particular area. Examples of a typical floodplain and associated flood zone legend you may encounter when viewing the County's online floodplain map are provided below. Instructions for viewing the online map and associated flood zones are provided in the section titled "How Can I View the Floodplains in Larimer County?".

FLOOD ZONES A AE, FLOOD FRINGE AE, FLOODWAY **ZONE AO** Z AH NAO AREA NOT INCLUDED X, 0.2 PCT ANNUAL CHANCE FLOOD HAZARD X, AREA OF MINIMAL FLOOD HAZARD X, AREA WITH REDUCED FLOOD RISK DUE TO LEVEE ZONE AE, FLOOD FRINGE **ZONE AE, FLOODWAY** ZONE, X, 0.2% ANNUAL CHAN FLOOD HAZARD

Figure 1. FEMA Floodplain on the Larimer County Online Floodplain Map

FLOOD ZONES A AE, FLOOD FRINGE AE, FLOODWAY ZONE X, 0.2% ANNUAL CHANCE Z AH FLOOD HAZARD NA 🔼 X, 0.2 PCT ANNUAL CHANCE FLOOD HAZARD X, 1 PCT DEPTH LESS THAN 1 FOOT X, AREA OF MINIMAL FLOOD HAZARD X, AREA WITH REDUCED FLOOD RISK DUE TO LEVEE ZONE AE, FLOOD FRINGE **ZONE AE, FLOODWAY**

Figure 2. Best Available Floodplain on the Larimer County Online Floodplain Map