



**COLORADO**

**Colorado Water  
Conservation Board**

Department of Natural Resources

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**TO:** Colorado Water Conservation Board Members

**FROM:** Kevin Houck, P.E. CFM, Section Chief  
Watershed & Flood Protection Section  
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**DATE:** May 15, 2024

**AGENDA ITEM:** Consent Agenda Item 4. May 15-16, 2024 Board Meeting - Floodplain Designations

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**Background:** Consent Agenda Item 4 includes 3 new floodplain studies that are proposed for CWCB action. Staff is requesting Board designation and approval for these items. A brief summary of the studies are presented in the attached document.

CWCB staff performs technical reviews of floodplain information to assure the Board that the information complies with the requirements of the CWCB's "Rules and Regulations for Regulatory Floodplains in Colorado," 2 CCR 408-1. The attached document provides a further discussion of legislative authority and responsibilities delegated to the CWCB. The CWCB's designation and approvals greatly assist local communities in meeting the statutory requirements of the State and the regulatory requirements of the National Flood Insurance Program.

Additional supporting information for these items are attached.

**Requested action for Floodplain Resolution 24-741:** Staff recommends that the Board: 1) designate and approve the 100-year and 500-year detailed floodplain and floodway information contained in said report within the City and County of Denver and the City of Lakewood, and 2) authorize staff to prepare a floodplain resolution to be signed by the Director and transmitted to the City and County of Denver, the City of Lakewood, and the Mile High Flood District. This action is recommended in order to meet statutory requirements.

**Requested action for Floodplain Resolution 24-742:** Staff recommends that the Board: 1) designate and approve the 100-year and 500-year detailed floodplain and floodway information and 100-year approximate floodplain information contained in said report for Arapahoe County, City of Aurora, City of Centennial, City of Cherry Hills, Town of Columbine Valley, City of Deer Trail, City of Englewood, Town of Foxfield, City of Glendale, City of Greenwood Village, City of Littleton, and City of Sheridan, and 2) authorize staff to prepare a floodplain resolution to be signed by the Director and transmitted to Arapahoe County, City of Aurora, City of Centennial, City of Cherry



Hills, Town of Columbine Valley, City of Deer Trail, City of Englewood, Town of Foxfield, City of Glendale, City of Greenwood Village, City of Littleton, and City of Sheridan, and FEMA. This action is recommended in order to meet statutory requirements.

**Requested action for Floodplain Resolution 24-743:** Staff recommends that the Board: 1) designate and approve the 100-year and 500-year detailed and 100-year approximate floodplain information contained in said report within La Plata County, Town of Bayfield, City of Durango, and Town of Ignacio, and 2) authorize staff to prepare a floodplain resolution to be signed by the Director and transmitted to La Plata Count, Town of Bayfield, City of Durango, Town of Ignacio, and FEMA. This action is recommended in order to meet statutory requirements.



## Attachment - Supporting Information

### *Consent Agenda Item 4 - Floodplain Designations*

**May 2024**

#### **Summary**

Consent Agenda Item 4 includes 3 floodplain studies that are proposed for CWCB action. Staff is requesting Board designation and approval for these items. A brief summary of the studies are presented below.

CWCB staff performs technical reviews of floodplain information to assure the Board that the information complies with the requirements of the CWCB's "Rules and Regulations for Regulatory Floodplains in Colorado," 2 CCR 408-1. Furthermore, Sections 31-23-301 and 30-28-111, Colorado Revised Statutes, state that legislative bodies of local jurisdictions may provide zoning regulations for land uses on or along any storm or floodwater runoff channel or basin only after designation and approval by the CWCB. In addition, Section 37-60-106(1)(c), Colorado Revised Statutes, directs the CWCB to designate and approve storm or floodwater runoff channels or basins and to make such designations available to legislative bodies of local jurisdictions.

The CWCB's designation and approvals greatly assist local communities in meeting the statutory requirements of the State and the regulatory requirements of the National Flood Insurance Program. Floodplain information is broadly categorized as detailed or approximate using the following definitions. Detailed floodplain information means floodplain information prepared using topographic base maps, hydrologic analyses, and hydraulic calculations to arrive at precise water surface profiles and floodplain delineations suitable for making land use decisions under statutorily authorized zoning powers. Approximate floodplain information means floodplain information prepared using a significantly reduced level of detail to arrive at floodplain (hazard delineation) without water surface profiles.

CWCB staff performs technical reviews on the following types of reports and maps for approval and designation by the Board:

"Flood Insurance Study" (FIS), which is produced by the Federal Emergency Management Agency (FEMA) and used for floodplain management, regulation, and insurance purposes.

"Flood Insurance Rate Map" (FIRM), which is produced by FEMA and used for floodplain management, regulation, and insurance purposes. A FIRM may be published with or without an associated hydrologic and hydraulic report.

"Flood Hazard Boundary Map" (FHBM), which was produced by the Federal Insurance Administration and are used for floodplain management, regulation, and insurance purposes. An FHBM usually depicts approximate floodplain boundaries only and does not have an accompanying report. Note: For all FHBM designations, the CWCB staff will perform (in-house or by contract with a consultant) hydrologic analyses.



“Floodplain Information Report”, which is produced by local governments, state and federal agencies, special districts, or the private sector, and are used for floodplain management purposes and sometimes adopted by FEMA for use in Flood Insurance Rate Map revisions.

Various hydrology studies and related floodplain studies (community-wide or site specific) that depict 100-year floodplain information that is useful for floodplain management purposes.

“Floodplain Information” is a generic term used to describe any of the above types of reports and/or maps in the CWCB’s “rules and regulations...”

“Floodplain Resolution” is a formal document prepared by CWCB staff describing the Floodplain Information that is to be designated and approved by the Board.



## **Summary of Designation Actions**

**Floodplain resolution number: FPR Designation #24-741**

**Affected communities:** City and County of Denver, and City of Lakewood.

**Name of study to be formally acted on:** “Flood Hazard Area Delineation, Sanderson Gulch”, by Matrix Design Group, dated October 2018.

**Studied streams:** The subject reach is in the South Platte Basin. The report includes detailed hydrologic and hydraulic information for the 100-year and 500-year floodplain and floodway for Sanderson Gulch.

**Technical Issues:** This report was authorized by the Mile High Flood District under joint sponsorship with the City and County of Denver and the City of Lakewood. This report utilized the hydrologic model EPA SWMM V5.1.012 and hydraulic model HEC-RAS V4.1.0.

**Community response:** The action to designate this Study was initiated by the Mile High Flood District. This study was initiated in July 2012 and three progress meetings were held with stakeholders on August 21, 2012, October 15, 2012, and March 5, 2013. Stakeholders included the Mile High Flood District, City and County of Denver, City of Lakewood, and Matrix Design Group.

**Staff findings:** CWCB staff has determined that the subject 100-year and 500-year floodplain and floodway information for Sanderson Gulch is in conformance with the CWCB’s rules and regulations for floodplain designation and approval. The CWCB staff has relied on the technical competence of Matrix Design Group, who produced the study, but also performed a limited independent technical review of the report. CWCB staff therefore endorses this study as containing the most current floodplain mapping available and urges the affected communities to adopt said study for land use regulation purposes pursuant to statutory authority.

**Requested action for Floodplain Resolution 24-741:** Staff recommends that the Board: 1) designate and approve the 100-year and 500-year detailed floodplain and floodway information contained in said report within the City and County of Denver and the City of Lakewood, and 2) authorize staff to prepare a floodplain resolution to be signed by the Director and transmitted to the City and County of Denver, the City of Lakewood, and the Mile High Flood District. This action is recommended in order to meet statutory requirements.



## **Floodplain resolution number: FPR Designation #24-742**

**Affected communities:** Arapahoe County, City of Aurora, City of Centennial, City of Cherry Hills, Town of Columbine Valley, City of Deer Trail, City of Englewood, Town of Foxfield, City of Glendale, City of Greenwood Village, City of Littleton, and City of Sheridan.

**Name of study to be formally acted on:** “Flood Insurance Study, Arapahoe County, Colorado and Incorporated Areas”, by the Federal Emergency Management Agency, dated April 11, 2024.

**Studied streams:** The report includes detailed 100-year and 500-year hydrologic and hydraulic information for Antelope Creek, Cherry Creek Spillway Drain, Baranmor Creek, Coal Creek, Bear Creek, Coon Creek, Bear Gulch, Cottonwood Creek, Big Dry Creek, Coyote Run, Big Dry Creek Tributary A, East Toll Gate Creek, Blackmer Gulch, Fillmore Tributary, Box Elder Creek, First Creek, Cardboard Draw, Goldsmith Gulch, Cherry Creek, Granby Ditch, Greenwood Gulch, Happy Canyon Creek, Lee Gulch, Little Dry Creek South Tributary, Littles Creek, Lone Tree Creek, Murphy Creek, Muskrat Run, Nobles Road Tributary, Otero Tributary, Piney Creek, Prairie Dog Draw, Prentice Gulch, Quincy Gulch, Rat Run, Sable Ditch, Sand Creek, SJCD 6100, SJCD 6200, Slaughterhouse Gulch, South Platte River, Slaughterhouse Gulch, Spring Creek, Toll Gate Creek, Unnamed Creek, West Toll Gate Creek, West Toll Gate Creek Tributary, West Tributary to Goldsmith Gulch, Westerly Creek, Westerly Creek Overflow, Willow Creek, Wolf Creek, Wolf Creek Tributary, and Woodrat Gulch.

It includes approximate 100-year floodplain information for Box Elder Creek (upper reaches), Coal Creek (upper reaches), Columbia Creek, Comanche Creek, Deer Trail Creek, Drainageway D in Columbine Valley, East Bijou Creek, First Creek, Green Acres Tributary, Kiowa Creek, Little Comanche Creek, Middle Bijou Creek, Muddy Creek, Piney Creek (upper reaches), Senac Creek, Side Creek, Unnamed Tributary to Coal Creek, West Bijou Creek, West Box Elder Creek, West Toll Gate Creek, West Toll Gate Creek Tributary, Wolf Creek.

**Technical Issues:** This report was authorized by the Federal Emergency Management Agency, under joint sponsorship with Arapahoe County and its incorporated communities.

**Community response:** The action to designate this Flood Insurance Study was initiated by CWCB staff. This study was prepared by FEMA in cooperation with Arapahoe County and its incorporated areas. Prior to establishing the new study, a final coordination meeting was held on April 8, 2020, in which all affected communities were invited. The results of the countywide project, including the Zone A level hydrologic and hydraulic analyses, were presented, and reviewed at the final Community Coordination (CCO) meeting attended by representatives of FEMA. The study was fully accepted and endorsed by all agencies present at this meeting.

**Staff findings:** CWCB staff has determined that the subject 100-year and 500-year detailed floodplain and floodway information and 100-year approximate floodplain information for the studied stream reaches is in conformance with the CWCB’s rules and regulations for floodplain designation and approval. CWCB staff therefore endorses this study as containing the most current floodplain mapping available and urges the affected communities to adopt said study for land use regulation purposes pursuant to statutory authority.



**Requested action for Floodplain Resolution 24-742:** Staff recommends that the Board: 1) designate and approve the 100-year and 500-year detailed floodplain and floodway information and 100-year approximate floodplain information contained in said report for Arapahoe County, City of Aurora, City of Centennial, City of Cherry Hills, Town of Columbine Valley, City of Deer Trail, City of Englewood, Town of Foxfield, City of Glendale, City of Greenwood Village, City of Littleton, and City of Sheridan, and 2) authorize staff to prepare a floodplain resolution to be signed by the Director and transmitted to Arapahoe County, City of Aurora, City of Centennial, City of Cherry Hills, Town of Columbine Valley, City of Deer Trail, City of Englewood, Town of Foxfield, City of Glendale, City of Greenwood Village, City of Littleton, and City of Sheridan, and FEMA. This action is recommended in order to meet statutory requirements.



**Floodplain resolution number: FPR Designation #24-743**

**Affected communities:** La Plata County, Town of Bayfield, City of Durango, and Town of Ignacio.

**Name of study to be formally acted on:** “Flood Insurance Study, La Plata County, Colorado and Incorporated Areas”, by the Federal Emergency Management Agency, April 25, 2024.

**Studied streams:** The subject reaches are in the Animas, Middle San Juan, and Upper San Juan HUC 8 Basins.

The report includes detailed 100-year and 500-year information for the Animas River, Coon Creek, D Creek, Dry Gulch, Grimes Creek, Hermosa Creek, Horse Gulch, Junction Creek, Lightner Creek, Los Pinos River, Lower Berri Creek, Middle Creek, Middle East, South Bear Creek, Upper Berri Creek, and Vallecito Creek.

It includes approximate 100-year floodplain information for the Animas River, Basin Creek, Bear Creek, Dry Gulch, Florida River, Horse Gulch, La Plata River, Los Pinos River, Pine Gulch, Red Creek, Salt Creek, South Fork Texas Creek, Wildcat Canyon, and Wilson Gulch.

**Technical Issues:** This FIS report covers the geographic area of La Plata County. Hydraulic analyses utilized HEC-RAS V5.0.5, V5.0.6 and HEC-2.

**Community response:** The action to designate this Flood Insurance Study was initiated by CWCB staff. This study was prepared by FEMA in cooperation with La Plata County and its incorporated areas. Prior to establishing the new study, a final coordination meeting was held on March 18, 2021, in which all affected communities were invited. The results of the countywide project, including the Zone A level hydrologic and hydraulic analyses, were presented, and reviewed at the final Community Coordination (CCO) meeting attended by representatives of FEMA. The study was fully accepted and endorsed by all agencies present at this meeting.

**Staff findings:** The subject Flood Insurance Study revises and therefore supersedes previous versions of the County’s regulatory floodplain information. CWCB staff has determined that the subject floodplain information for La Plata County and its incorporated municipalities is in conformance with the CWCB’s rules and regulations for floodplain designation and approval.

**Requested action for Floodplain Resolution 24-743:** Staff recommends that the Board: 1) designate and approve the 100-year and 500-year detailed and 100-year approximate floodplain information contained in said report within La Plata County, Town of Bayfield, City of Durango, and Town of Ignacio, and 2) authorize staff to prepare a floodplain resolution to be signed by the Director and transmitted to La Plata Count, Town of Bayfield, City of Durango, Town of Ignacio, and FEMA. This action is recommended in order to meet statutory requirements.

