



**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:** November 20, 2024

**AGENDA ITEM:** Consent Agenda Item 3. November 20-21, 2024 Board Meeting - Floodplain Designations

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**Background:** Consent Agenda Item 3 includes 2 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 24-747:** Staff recommends that the Board: 1) designate and approve the 100-year and 500-year detailed floodplain, 100-year and 500-year approximate, and floodway information contained in said report for Weld County and Incorporated Areas, and 2) authorize staff to prepare a floodplain resolution to be signed by the Director and transmitted to Weld County and Incorporated Areas, and FEMA. This action is recommended in order to meet statutory requirements.

**Requested action for Floodplain Resolution 24-748:** Staff recommends that the Board: 1) designate and approve the 100-year and 500-year detailed floodplain, 100-year and 500-year approximate, and floodway information contained in said report for Boulder County and Incorporated Areas, and 2) authorize staff to prepare a floodplain resolution to be signed by the Director and transmitted to Boulder County and Incorporated Areas, and FEMA. This action is recommended in order to meet statutory requirements.



## **Attachment - Supporting Information**

### ***Consent Agenda Item 3 - Floodplain Designations***

***November 2024***

#### **Summary**

Consent Agenda Item 3 includes 2 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 #24-747**

**Affected communities:** Weld County and Incorporated Areas

**Name of study to be formally acted on:** “Flood Insurance Study, Weld County Colorado and Incorporated Areas”, by the Federal Emergency Management Agency, September 26, 2024.

**Studied streams:** The report includes detailed 100-year and 500-year hydrologic and hydraulic information for Ashcroft Draw, Big Thompson River, Boulder Creek, Cache La Poudre, Coal Creek, Coalbank Creek, Consolidated John Law Ditch, Dry Creek No. 2, Eaton Draw, Greeley Canal No. 2, John Law Ditch, Little Thompson River, Pumpkin Ridge Split Flow Path, St. Vrain Creek, Sheep Draw, South Platte River, Spring Creek, The Slough, Tri-Area Drainageway, U.S. Highway 34 Bypass Split Flow Path, and Western Flow Path to Spring Creek Tributary. The report includes approximate 100-year and 500-year hydrologic and hydraulic information for East Branch of Rocky Mountain Creek, John Law Ditch, Rocky Mountain Creek, South Platte River, Spring Creek, and The Slough. The studied streams are in the South Platte Basin.

**Technical Issues:** This report covers the entire geographic area of Weld County and was authorized by the Federal Emergency Management Agency, under joint sponsorship with Weld County. Hydrologic analyses were performed with various version of HEC-HMS. Versions include V3.0 to V3.5. Hydraulic analysis utilized various versions of HEC-RAS. Versions include HEC-2, HEC-RAS 3.1.1, HEC-RAS 4.1.0, and HEC-RAS 5.0.1.

**Community response:** The action to designate this Flood Insurance Study was initiated by CWCB staff. This study was prepared by FEMA in cooperation with Weld County and its incorporated areas. Prior to establishing the new study, a final coordination meeting was held on September 24, 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, 100-year and 500-year approximate floodplain, and floodway 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 24-747:** Staff recommends that the Board: 1) designate and approve the 100-year and 500-year detailed floodplain, 100-year and 500-year approximate, and floodway information contained in said report for Weld County and Incorporated Areas, and 2) authorize staff to prepare a floodplain resolution to be signed by the Director and transmitted to Weld County and Incorporated Areas, and FEMA. This action is recommended in order to meet statutory requirements.



## **Floodplain resolution number: FPR Designation #24-748**

**Affected communities:** Boulder County and Incorporated Areas

**Name of study to be formally acted on:** “Flood Insurance Study, Boulder County, Colorado and Incorporated Areas”, by the Federal Emergency Management Agency, October 24, 2024.

**Studied streams:** The report includes detailed 100-year and 500-year hydrologic and hydraulic information for 55th Street Split Flow, Arapahoe Avenue Spill Flow, Bear Canyon Creek, Boulder Creek, Boulder Slough, Bullhead Gulch, Canyon Boulevard Overflow, Clover Basin Tributary, Coal Creek, Drainageway 7, Drainageway 7-2, Drainageway A, Drainageway A-2, Dry Creek, Dry Creek Ditch No. 2, Dry Creek No. 1, Dry Creek No. 2 Split Flow, Dry Creek No. 1 (Old Channel), Dry Creek No. 3, Elmers Twomile Creek, Fourmile Canyon Creek, Fourmile Creek, Gold Run, Goodhue Ditch, Goose Creek, Gregory Canyon Creek, James Creek, Left Hand Creek, Little James Creek, Little Thompson River, Middle Boulder Creek, Middle St. Vrain Creek, North Beaver Creek, North Goose Creek, North St. Vrain Creek, Prince Tributary, Rock Creek, St. Vrain Creek, Skunk Creek, South Boulder Creek, South St. Vrain Creek, Spring Gulch, Steele Lakes Tributary, Twomile Canyon Creek, West Valley Split Flow, and Wonderland Creek. The report includes approximate 100-year and 500-year hydrologic and hydraulic information for Bluebell Canyon Creek, Boulder Slough - Goss Alley Split, Cabin Creek, Coal Creek, Fourmile Canyon Creek, James Creek, Kings Gulch, Little Thompson River, Middle Boulder Creek, North Beaver Creek, North St. Vrain Creek, Niwot Ditch, Rock Creek, Skunk Creek, South Boulder Creek, South St. Vrain Creek, Sunshine Creek and West Fork Little Thompson River. The studied streams are in the South Platte Basin.

**Technical Issues:** This report utilized various versions of Hydrologic Models CUHP, HEC-HMS and SWMM and Hydraulic Model HEC-RAS.

**Community response:** The action to designate this Flood Insurance Study was initiated by CWCB staff. This study was prepared by FEMA in cooperation with Boulder County and its incorporated areas. Prior to establishing the new study, a final coordination meeting was held on October 29, 2019, in which all affected communities were invited. The results of the countywide project, including the Zone AE level hydrologic and hydraulic analyses, were presented, and reviewed at the final Community Coordination (CCO) meeting attended by representatives of FEMA, CWCB and the communities. 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, 100-year and 500-year approximate floodplain, and floodway 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 24-748:** Staff recommends that the Board: 1) designate and approve the 100-year and 500-year detailed floodplain, 100-year and 500-year approximate, and floodway information contained in said report for Boulder County and



Incorporated Areas, and 2) authorize staff to prepare a floodplain resolution to be signed by the Director and transmitted to Boulder County and Incorporated Areas, and FEMA. This action is recommended in order to meet statutory requirements.

