

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

Steven Reeves, Watershed and Flood Protection Specialist

DATE: January 27, 2025

AGENDA ITEM: Consent Agenda Item 4. January 27-28, 2025 Board

Meeting - Floodplain Designations

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 25-749: 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 Adams County, City of Northglenn, and City of Thornton, and 2) authorize staff to prepare a floodplain resolution to be signed by the Director and transmitted to Adams County, City of Northglenn, City of Thornton, and the Mile High Flood District. This action is recommended in order to meet statutory requirements.

Requested action for Floodplain Resolution 25-750: 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 Arapahoe County, Jefferson County, Town of Columbine Valley, and City of Littleton, and 2) authorize staff to prepare a floodplain resolution to be signed by the Director and transmitted to the Arapahoe County, Jefferson County, Town of Columbine Valley, City of Littleton, Southeast Metro Stormwater Authority, and the Mile High Flood District. This action is recommended in order to meet statutory requirements.



Requested action for Floodplain Resolution 25-751: 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 Jefferson County, City and County of Denver, and City of Lakewood, and 2) authorize staff to prepare a floodplain resolution to be signed by the Director and transmitted to Jefferson County, City and County of Denver, City of Lakewood, and Mile High Flood District. This action is recommended in order to meet statutory requirements.



Attachment - Supporting Information

Consent Agenda Item 4 - Floodplain Designations

January 2025

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 (inhouse 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 #25-749

Affected communities: Adams County, City of Northglenn, City of Thornton.

Name of study to be formally acted on: "Brantner Gulch and Tributaries Flood Hazard Area Delineation", by Olsson, dated September 2024.

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 Brantner Gulch, Ohio Lake Overflow, Eastlake 2 Overflow, Lakeview Tributary, Plains Tributary, Horizon Tributary, Pheasants Run Tributary, Fairgrounds Tributary, South Platte River Tributary 6, and South Platte River Tributary 7.

Technical Issues: This report was authorized by the Mile High Flood District under joint sponsorship with Adams County, City of Northglenn, and City of Thornton. This report utilized the hydrologic models CUHP V2.0.0 and EPA SWMM V5.1.013 and hydraulic model HEC-RAS V6.2.

Community response: The action to designate this Study was initiated by the Mile High Flood District. This study was initiated in September 2018. Meetings to discuss the hydrology comments, FHAD modeling, and alternatives analysis were held on May 13, 2019, November 3, 2020, November 16, 2020, November 20, 2019, February 10, 2021, December 7, 2021, July 21, 2022, January 3, 2023, July 13, 2023, December 21, 2023, June 17, 2024. A public meeting was held on February 29, 2024 to alert the public of the study, changes to the hydrology, existing conditions and improvement alternatives.

Staff findings: CWCB staff has determined that the subject 100-year and 500-year floodplain and floodway information for Brantner 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 Olsson, 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 25-749: 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 Adams County, City of Northglenn, and City of Thornton, and 2) authorize staff to prepare a floodplain resolution to be signed by the Director and transmitted to Adams County, City of Northglenn, City of Thornton, and the Mile High Flood District. This action is recommended in order to meet statutory requirements.



Floodplain resolution number: FPR Designation #25-750

Affected communities: Arapahoe County, Jefferson County, Southeast Metro Stormwater Authority, Town of Columbine Valley, City of Littleton.

Name of study to be formally acted on: "Flood Hazard Areas Delineation Report SJCD (N), SJCD (S) North Tributary & DFA 6100.5", by Olsson, dated October 2024.

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 SJCD (N), SJCD (S) North Tributary and DFA 6100.5.

Technical Issues: This report was authorized by the Mile High Flood District under joint sponsorship with Arapahoe County, Jefferson County, Southeast Metro Stormwater Authority, Town of Columbine Valley, and City of Littleton. This report utilized the hydrologic models CUHP V2.0.0 and EPA SWMM V5.1.013 and hydraulic model HEC-RAS V5.0.7.

Community response: The action to designate this Study was initiated by the Mile High Flood District. This study was initiated in July 2017. Three progress meetings were held with all stakeholders on October 2, 2017, October 17, 2018, and August 3, 2021. No public meetings have been held prior to publication of this report.

Staff findings: CWCB staff has determined that the subject 100-year and 500-year floodplain and floodway information for SJCD (N), SJCD (S) North Tributary and DFA 6100.5 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 Olsson, 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 25-750: 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 Arapahoe County, Jefferson County, Town of Columbine Valley, and City of Littleton, and 2) authorize staff to prepare a floodplain resolution to be signed by the Director and transmitted to the Arapahoe County, Jefferson County, Town of Columbine Valley, City of Littleton, Southeast Metro Stormwater Authority, and the Mile High Flood District. This action is recommended in order to meet statutory requirements.



Floodplain resolution number: FPR Designation #25-751

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

Name of study to be formally acted on: "Weir Gulch and Tributaries Flood Hazard Area Delineation", by Michael Baker International, dated October 2024.

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 1st Avenue Tributary, Dakota Avenue Tributary, South Weir Gulch, and Weir Gulch.

Technical Issues: This report was authorized by the Mile High Flood District under joint sponsorship with Jefferson County, City and County of Denver, and City of Lakewood. This report utilized the hydrologic models CUHP V2.0.0 and EPA SWMM V5.2.3 and hydraulic model HEC-RAS V5.0.6.

Community response: The action to designate this Study was initiated by the Mile High Flood District. This study was initiated in May 2013. Additionally, a total of 11 progress meetings were held throughout the initial development of the FHAD. The dates for the progress meetings were; July 22nd, August 1st, August 14th, September 25th, November 14th, November 18th, December 5th, December 12th, December 18th of 2013, August 3rd of 2016, and August 26th of 2019. Public meetings for this Project occurred on October 9, 2024; October 16, 2024; and October 19, 2024, to gather input from residents, stakeholders, and interested parties.

Staff findings: CWCB staff has determined that the subject 100-year and 500-year floodplain and floodway information for 1st Avenue Tributary, Dakota Avenue Tributary, South Weir Gulch, and Weir 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 Michael Baker International, 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 25-751: 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 Jefferson County, City and County of Denver, and City of Lakewood, and 2) authorize staff to prepare a floodplain resolution to be signed by the Director and transmitted to Jefferson County, City and County of Denver, City of Lakewood, and Mile High Flood District. This action is recommended in order to meet statutory requirements.

