



Hazard Mitigation Plan

Volume II—Annexes



March 2026

Douglas County Hazard Mitigation Plan

March 2026

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1. INTRODUCTION

1.1 BACKGROUND

The Federal Emergency Management Agency (FEMA) encourages multi-jurisdictional planning for local hazard mitigation. Such planning efforts can generate a unified local voice on hazard mitigation, with cross-jurisdictional support for a hazard mitigation plan's recommended mitigation actions. They also help to form working relationships among participants' emergency managers, floodplain administrations, and other development agencies (FEMA 2021). Eligible participants for multi-jurisdiction hazard mitigation plans are local governments defined as follows in Title 44 of the Code of Federal Regulations, Part 201 (Mitigation Planning):

"Any county, municipality, city, town, township, public authority, school district, special district, intrastate district, council of governments (regardless of whether the council of governments is incorporated as a nonprofit corporation under State law), regional or interstate government entity, or agency or instrumentality of a local government; any Indian tribe or authorized tribal organization, or Alaska Native village or organization; and any rural community, unincorporated town or village, or other public entity." (44 CFR Section 201.2)

In multi-jurisdictional hazard mitigation planning, every participating jurisdiction must meet the federal requirements for local mitigation planning. This means that each jurisdiction must actively participate in the planning process and must officially adopt the plan (44 CFR Section 201.6a(4)).

For the Douglas County Hazard Mitigation Plan (HMP), a Local Planning Committee was formed to leverage resources and to meet the federal local mitigation planning requirements for as many eligible governments in the County as possible. Members of the Local Planning Committee consisted of representatives from each participating jurisdiction. Douglas County was the lead agency for this planning effort and directed the planning process with assistance from a contract planning consultant (Tetra Tech). A Core Planning Team with broad representation across the county provided guidance and direction for the HMP planning process. Each participating planning partner has prepared a jurisdictional annex to this plan.

This chapter describes the Douglas County HMP Local Planning Committee, its responsibilities throughout the planning process, and the jurisdictional annexes developed as a result of the plan update efforts. The remaining chapters in this volume of the HMP present the annexes for each participating jurisdiction.

1.2 PLANNING PARTNER INVOLVEMENT

1.2.1 Initial Solicitation and Letters of Intent

Douglas County solicited the participation of all eligible jurisdictions in the County at the commencement of this project. All jurisdictions interested signed a letter of intent and/or a resolution committing their participation and resources to the development of the Douglas County HMP (Appendix A). The following is a list of the jurisdictions that participated in the update process and have met the minimum requirements of participation as established by the County and the Core Planning Team:

- County of Douglas
- City of Castle Pines
- Town of Castle Rock
- Town of Larkspur
- City of Lone Tree
- Town of Parker
- Denver Water District
- Dominion Water and Sanitation District
- Highlands Ranch Water District
- Parker Water Sanitation District

1.2.2 Planning Partner Expectations

The following list of planning partner expectations was agreed to in each letter of intent to participate:

- Identify representatives to serve as the planning points of contacts. These people were responsible for representing the community and assuring that these participation expectations are met by their community.
- Support the Core Planning Team selected to oversee the development of this plan.
- Provide representation at Planning Committee meetings
- Provide data and information about the community as requested by the Core Planning Team or the contract consultant, including:
 - Structure and facility inventory data
 - New development and anticipated development
 - Natural hazard risk areas
 - Natural hazard events and losses that have impacted the community in the last five years
 - Plans, studies, reports, and ordinances addressing natural hazard risk
 - Mitigation activity in the community in the last five years, including progress on previously identified mitigation actions.
- Support public outreach efforts in the community, which may include:
 - Providing notices of the planning project on the jurisdictional website with links to a County project website
 - Providing notice of the planning project, the availability of plan documents, and notice of public meetings via available local media (e.g. newsletters, flyers, email blasts, social media, etc.)
 - Advertising and supporting public meetings in the area
 - Supporting outreach to National Flood Insurance Program (NFIP) Repetitive Loss and Severe Repetitive Loss property owners in the community.
- Assist with the identification of stakeholders within the community who should be informed and potentially involved with the planning process.
- Complete data and information collection survey forms in a timely manner.

The **Local Planning Committee** is responsible for developing and reviewing draft chapters of the hazard mitigation plan, creating the mitigation strategy for their jurisdiction, and adopting the final plan. Members of the Local Planning Committee have the expertise to develop the plan and have their jurisdiction's authority to implement the mitigation strategy developed during the planning process.

- Identify specific mitigation actions to address each of the natural hazards posing significant (or high or medium) risk to the community.
- Involve the local NFIP Floodplain Administrator in the planning process.
- Review draft plan sections when requested and provide comment and input as appropriate.
- Adopt the plan by resolution of the local governing body after FEMA conditional approval.
- Periodically provide the Core Planning Team with reports of municipal staff and volunteer labor spent on the planning process.

Under the plan implementation and maintenance protocol established in Volume I of the HMP, it is intended that the Local Planning Committee will remain active to support maintenance of the HMP after the plan has been adopted. By adopting this plan, each planning partner agrees to the plan implementation and maintenance protocol. Given that individual commitments change over time, it will be the responsibility of each jurisdiction and its points of contact to inform the County's coordinator for this HMP of any changes in representation.

1.3 JURISDICTIONAL ANNEX PREPARATION PROCESS

Jurisdictional annexes provide a unique, stand-alone guide to mitigation planning for each jurisdiction participating in a multi-jurisdiction HMP. The Douglas County HMP is organized so that there is an annex for Douglas County and for every jurisdiction within the County's borders. This volume of the HMP includes an annex for each jurisdiction in Douglas County, including those that did not fully participate.

Workshops and additional meetings (in person, by email, or by teleconference) to complete the jurisdictional annexes were held with the County, the contract consultant, and the Core Planning Team throughout the planning process. Details regarding these meetings are described further in Volume I.

1.3.1 Incorporation of Information from Previous HMP

In order to facilitate the update of the jurisdictional annexes, data from the 2021 Douglas County HMP annexes was transferred to the most current annex format, which has evolved to meet changing federal and state criteria. Clear instructions were provided to the representatives of each planning partner. This transfer of information provided a basis to address the following:

- Changes in local capabilities and vulnerabilities
- The current status of the 2021 HMP mitigation strategy
- A new mitigation strategy to address identified issues and to increase community resiliency

1.3.2 Kickoff Meeting

The County invited all jurisdictions to participate in a Local Planning Committee kickoff meeting held on May 25, 2025, to provide an overview of the planning process, including meetings and worksheets that would be used to gather information for annex preparation. Key elements of the worksheets were discussed and subsequently completed by the appropriate jurisdictional personnel for each worksheet. The worksheets were collected, and the information was incorporated into each jurisdictional annex. In the event additional information was needed, the jurisdictional point of contact was contacted to provide more input into their annex.

1.3.3 Hazard Ranking Exercise

At the risk assessment meeting on October 15, 2025, the consultant summarized the findings of the risk assessment for the hazards of concern evaluated in this HMP, including an initial ranking of hazards using the risk-related ranking methodology described in Volume I. Each planning partner was asked to review the hazard ranking for its jurisdiction and revise as appropriate based on history of events, probability of occurrence, and the potential impact on people, property, and the economy. This exercise familiarized the planning partners with how to use the risk assessment as a tool to support other planning and hazard mitigation processes and to help prioritize types of mitigation actions that should be considered. Hazards that were ranked as “high” for each jurisdiction as a result of this exercise were considered to be priorities for identifying appropriate mitigation actions, although jurisdictions also identified actions to mitigate “medium” or “low” ranked hazards as appropriate.

1.3.4 Mitigation Strategy Workshop

A mitigation strategy workshop was held on October 15, 2025, to provide an overview on how to develop a strong mitigation strategy. In preparation for this workshop, the consultant provided a list of problem areas and vulnerabilities identified during the planning process, along with feedback from the public survey, to support the development of relevant projects for the mitigation strategy. Workshop participants received the following FEMA publications to use as a resource as part of a comprehensive review of all possible activities and mitigation measures to address hazards of concern:

- FEMA 551 “Selecting Appropriate Mitigation Measures for Floodprone Structures” (March 2007)
- FEMA “Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards” (January 2013).

This workshop included the development of focused problem statements based on the impacts of natural hazards in the County and its communities. These problem statements provide detailed descriptions of problem areas, including known impacts on the jurisdiction (past damage, loss of service, etc.). Where possible, the statements include the street address of the problem location, adjacent streets, water bodies, and well-known structures as well as a brief description of existing site conditions (topography, terrain, hydrology). The problem statements form a bridge between the risk assessment (which quantifies impacts on each community), the capability assessment (which identifies capabilities for reducing hazard risks and supporting hazard mitigation), and the development of actionable mitigation strategies.

The County and the mitigation consultant worked with each jurisdiction to identify clear, implementable mitigation actions and to further support the completion of the jurisdictional annexes. The Action Worksheet template and instructions are provided in Appendix E (Action Worksheet Template).

1.4 JURISDICTIONAL ANNEX FORMAT

The jurisdictional annex format is designed to document local compliance with the 44 CFR local mitigation planning regulations. It also achieves the following:

- Providing a locally relevant synthesis of the overall mitigation plan that can be readily presented, distributed, and maintained
- Facilitating local understanding of the community’s risk from natural hazards

- Facilitating local understanding of the community's capabilities to manage natural hazard risk, including opportunities to improve those capabilities
- Facilitating local understanding of the efforts the community has taken, and plans to take, to reduce its natural hazard risk
- Facilitating the implementation of mitigation strategies, including the development of grant applications
- Providing a framework by which the community can continue to capture relevant data and information for future plan updates

The following are the elements of the jurisdictional annex.

- **Section X.1: Hazard Mitigation Planning Team:** Identifies the hazard mitigation planning primary and alternate contacts and floodplain administrator. Provides details on which departments were involved in the development of the jurisdictional annex. The widest range of departments, stakeholders, and persons familiar with the jurisdiction should be involved in the development of the jurisdictional annexes. Further detail on participants is provided in Volume I.
- **Section X.2: Community Profile:** Provides a profile of the jurisdiction, including population and socially vulnerably populations.
- **Section X.3: Jurisdictional Capability Assessment and Integration:** Provides an inventory and evaluation of the jurisdiction's tools, mechanisms, and resources available to support hazard mitigation and natural hazard risk reduction. Tables provide an inventory of the jurisdiction's planning, regulatory, administrative, technical, and fiscal capabilities, its level of participation in state and federal programs designed to promote and incentivize local risk reduction efforts, and its adaptive capacity to adjust to damage and respond to consequences.
- **Section X.4: National Flood Insurance Program (NFIP) Compliance:** Summarizes jurisdiction-specific information related to managing and regulating the regulatory floodplain, including current and future compliance with the NFIP.
- **Section X.5: Growth/Development Trends:** Summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development.
- **Section X.6: Jurisdictional Risk Assessment:** Provides information regarding each jurisdiction's vulnerability to the identified hazards. Full data and information on the hazards of concern, the methodology used to develop the vulnerability assessments, and the results of those assessments that serve as the basis of these local hazard rankings may be found in Volume I.
 - **Hazard Area:** Each annex includes a map (or series of maps) illustrating identified hazard zones and critical facilities. The maps also show areas of known or anticipated future development, as available.
 - **Hazard Event History:** Identifies hazard events that have caused significant impacts within the jurisdiction, including a summary characterization of those impacts identified by the jurisdiction.
 - **Hazard Ranking and Vulnerabilities:** Each jurisdiction has differing degrees of risk exposure and vulnerability. The local hazard ranking identifies each jurisdiction's local degree of risk to each hazard, supporting the selection and prioritization of actions to reduce the highest levels of risk for each community.
 - **Critical Facilities:** Identifies potential flood losses to critical facilities in the jurisdiction based on the flood vulnerability assessment process presented in Volume I.
 - **Identified Issues:** Presents other specific hazard vulnerabilities as identified by the jurisdiction.

- **Section X.7: Mitigation Strategy and Prioritization:** Discusses and provides the status of past mitigation actions and status and describes proposed hazard mitigation actions and prioritization.
 - **Past Mitigation Action Status:** Where applicable, a review of progress on the jurisdiction's prior mitigation strategy is presented, identifying the disposition of each prior action in the jurisdiction's updated mitigation strategy. Other completed or ongoing mitigation activities that were not specifically part of a prior local mitigation strategy may be included in this subsection as well.
 - **Completed Mitigation Actions Not Identified in the Previous Mitigation Strategy:** Other completed or ongoing mitigation activities that were not specifically part of a prior local mitigation strategy may be included in this subsection as well.
 - **Proposed Hazard Mitigation Actions for the Plan Update:** Tables and action worksheets at the end of each annex present the jurisdiction's updated mitigation strategy, a summary of the local mitigation strategy prioritization and a summary of the action categories and hazards addressed.

Each jurisdiction's annex is a living document that will continue to be improved as resources permit. Continued efforts to maintain the annex will ensure that it remains current and will improve its effectiveness as the key tool, reference, and guiding document by which the jurisdiction will implement hazard mitigation locally.

1.5 COVERAGE UNDER THE PLAN

Ten (10) planning partners fully met the participation requirements specified by the Core Planning Team and have annexes included in this volume. Those that did not meet the requirements will not be able to seek FEMA or state approval at the time of plan submittal, nor will they be eligible to obtain FEMA grant funding. Table 1-1 lists the status of each jurisdiction. Note that participation in scheduled Local Planning Committee meetings provides only a partial indication of the level of participation of each jurisdiction. Appendices in Volume I provide details on further participation and meeting attendance.

Table 1-1. Jurisdictional Status

Jurisdiction	Letter of Intent to Participate	Attended Workshops, Meetings, and Calls	Provided Update on Past Projects	Submitted Mitigation Actions for Current Plan	Seeking Approval for Adoption (meets all previous requirements)
County of Douglas	N/A	X	X	X	X
City of Castle Pines	X	X	X	X	X
Town of Castle Rock	X	X	X	X	X
Town of Larkspur	X	X	X	X	X
City of Lone Tree	X	X	X	X	X
Town of Parker	X	X	X	X	X
Denver Water District	X	X	X	X	X
Dominion Water and Sanitation District	X	X	N/A	X	X
Highlands Ranch Water District	X	X	N/A	X	X
Parker Water Sanitation District	X	X	X	X	X

N/A Not Applicable

2. COUNTY OF DOUGLAS

This jurisdictional annex to the Douglas County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in Douglas County with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Douglas County, describes who participated in the planning process, assesses Douglas County's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

2.1 HAZARD MITIGATION PLANNING TEAM

Douglas County identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many departments. The Emergency Management Director represented the community on the Douglas County HMP Local Planning Committee and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 2-1 summarizes the Douglas County officials who participated in the development of the annex and in what capacity. Additional documentation of the County planning activities through Local Planning Committee meetings is included in Volume I.

Table 2-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Mike Alexander, Emergency Management Director Address: 4000 Justice Way, Castle Rock, CO 80109 Phone Number: 303-660-7589 x 6105 Email: malexand@dcsheriff.net	Name/Title: Lisa Goudy, Safety and Security Administrator Address: 100 Third Street, Castle Rock, CO 80104 Phone Number: 303-814-7180 Email: mgoudy@douglas.co.us
National Flood Insurance Program Floodplain Administrator	
Name/Title: Janet Herman, Director of Public Works Address: 00 Third Street, Castle Rock, CO 80104 Phone Number: 303-660-7307 Email: jherman@douglas.co.us	
Additional Contributors	
Name/Title: Jason Petalas, Safety and Security Manager Method of Participation: Stakeholder and Local Planning Committee Member who attended the County Kick-Off Meeting and the Local Planning Committee Kick-Off Meeting.	
Name/Title: Brandon Lenderink, Deputy Director Emergency Management Method of Participation: Stakeholder and Local Planning Committee Member who attended the County Kick-Off Meeting and the Local Planning Committee Kick-Off Meeting. Provided status updates to the previous mitigation actions.	
Name/Title: Matthew Dziubanski, Chief Building Official Method of Participation: Stakeholder and Local Planning Committee Member who attended the Local Planning Committee Kick-Off Meeting.	
Name/Title: Steve Koster, Deputy Director of Community Development	

Method of Participation: Stakeholder and Local Planning Committee Member who attended the Local Planning Committee Kick-Off Meeting. Provided status updates to the previous mitigation actions.

Name/Title: Michael Hill, Director of Health Department

Method of Participation: Stakeholder and Local Planning Committee Member who attended the Local Planning Committee Kick-Off Meeting.

Name/Title: Jon Surbeck, Emergency Preparedness and Disease Surveillance Manager

Method of Participation: Stakeholder and Local Planning Committee Member who attended the Local Planning Committee Kick-Off Meeting.

Name/Title: Janet Herman, Director of Public Works

Method of Participation: Stakeholder and Local Planning Committee Member who attended the Local Planning Committee Kick-Off Meeting.

Name/Title: Daniel Roberts, Assistant Director Public Works Operations

Method of Participation: Stakeholder and Local Planning Committee Member who attended the Local Planning Committee Kick-Off Meeting. Provided status updates to the previous mitigation actions.

Name/Title: Tim Jones, Lead Senior Systems Analyst – Information Technology

Method of Participation: Stakeholder and Local Planning Committee Member who attended the Local Planning Committee Kick-Off Meeting.

Name/Title: Michael Butterfield, System Analyst

Method of Participation: Stakeholder and Local Planning Committee Member who attended the Local Planning Committee Kick-Off Meeting.

Name/Title: Felice Entratter, Appeals Administrator

Method of Participation: Stakeholder and Local Planning Committee Member who attended the Local Planning Committee Kick-Off Meeting.

Name/Title: Codi Winslow, Chief Deputy Clerk

Method of Participation: Stakeholder and Local Planning Committee Member who attended the Local Planning Committee Kick-Off Meeting.

Name/Title: Jason Kennedy, Undersheriff

Method of Participation: Stakeholder and Local Planning Committee Member who attended the Local Planning Committee Kick-Off Meeting.

Name/Title: Elijah Knecht, Emergency Preparedness and Response Specialist

Method of Participation: Stakeholder and Local Planning Committee Member who attended the Local Planning Committee Kick-Off Meeting.

Name/Title: Zeke Lynch, Assistant Director of Engineering

Method of Participation: Stakeholder and Local Planning Committee Member who attended the Local Planning Committee Kick-Off Meeting.

Name/Title: Rand Clark, Assistant Director of Community Services

Method of Participation: Stakeholder and Local Planning Committee Member who attended the Local Planning Committee Kick-Off Meeting.

Name/Title: Scott McEldowney, Open Space and Natural Resources

Method of Participation: Stakeholder and Local Planning Committee Member who attended the Local Planning Committee Kick-Off Meeting.

Name/Title: Ryan Smith, Open Space and Natural Resources

Method of Participation: Stakeholder and Local Planning Committee Member who attended the Local Planning Committee Kick-Off Meeting.

Name/Title: Kirk Inderbitzen, Open Space and Natural Resources

Method of Participation: Stakeholder and Local Planning Committee Member who attended the Local Planning Committee Kick-Off Meeting.

Name/Title: Jim Brown, Chief Technology Officer

Method of Participation: Stakeholder and Local Planning Committee Member who attended the Local Planning Committee Kick-Off Meeting.

2.2 COMMUNITY PROFILE

2.2.1 Location

Much of Douglas County consists of unincorporated land, with incorporated towns in much of the area directly east and west of Interstate 25 in the northern half of the County. As much of Douglas County is made up of unincorporated land, the region is bordered by Jefferson County to the West, Park County to the Southwest, Teller County and El Paso County to the South, Elbert County to the East, and Arapahoe County to the North. The land consists of a wide range of topography encompassing mountain vistas, dramatic ridgelines, hills, and grass covered plains. Three state parks, Castlewood Canyon State Park, Chatfield State Park, and Roxborough State Park are located within the unincorporated regions of Douglas County.

Unincorporated Douglas County is dispersed throughout Douglas County, namely comprising the Western half of the county, as well as the Southern half and Eastern-most regions of Douglas County. Unincorporated Douglas County is bound by South Platte River to the West and Delbert Road to the East, encompassing an area of 766 square miles.

2.2.1 History

Douglas County is shaped by its County's history, which began in 1861 with the Colorado Territory Sessions Laws with the creation of Douglas County, after Stephen A. Douglas. While Douglas County used to encompass much of the land from the Rocky Mountains to Colorado's border with Kansas, it now sits in Central Colorado. Much of Douglas County consists of permanently protected land, which can be attributed to the Douglas County Open Space Program, offering over 146,000 acres of recreational land and green space.

2.2.2 Governing Body

Douglas County is governed by the Board of County Commissioners. This Board, comprised of three members, acts as the legislative and administrative body for the unincorporated regions of the county. The Board of County Commissioners also makes all policy decisions, including adopting ordinances and resolutions. The Board of County Commissioners is responsible for appointing other relevant County officials, such as the County Manager and County Attorney. The County Manager oversees the implementation of policy and leads County staff, while the County Attorney is an advisor and representative of the Board and elected officials, department heads, and other pertinent governmental staff in Douglas County. Other county elected officials include the Assessor, Clerk and Recorder, Coroner, Sheriff, Surveyor, and Treasurer.

Development of this annex was carried out by the members of the local mitigation planning team, whose members are listed in Table 2-1.

2.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

Douglas County performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day local government operations. As part of the hazard mitigation analysis, planning and/policy documents were reviewed and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. Development of an updated mitigation strategy provided an opportunity for Douglas County to identify opportunities for integrating mitigation concepts into ongoing County procedures.

2.3.1 Planning and Regulatory Capability and Integration

Table 2-2 summarizes the planning and regulatory tools that are available to Douglas County.

Table 2-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
CODES, ORDINANCES, & REGULATIONS				
Building Code	Yes	Adopted on June 13, 2023, adopted amendments to the Douglas County Building Codes effective June 30, 2023	State and County	Building Division
How has or will this be integrated with the HMP and how does this reduce risk? The Douglas County Building Division requires building permits for buildings/structures. The permit process verifies that these buildings are designed and built to some of the most current construction codes and standards available. These codes and standards establish minimum requirements to safeguard public safety, health and general welfare.				
Zoning/Land Use Code	Yes	Douglas County Zoning Resolution, March 10, 1999, as subsequently amended	County	Douglas County Department of Community Development
How has or will this be integrated with the HMP and how does this reduce risk? The Douglas County Zoning Resolution ("DCZR") requires that applicants for rezoning's identify natural and man-made hazards impacting the subject property. The approval criteria for rezoning's then include an assessment by the Planning Commission and Board of County Commissioners of whether the property is suitable for the proposed uses. The DCZR includes the Wildfire Hazard Overlay District and the Floodplain Overlay District which set expectations for mitigation or avoidance of flood and wildfire hazards to be integrated into new developments in designated hazard areas.				
Subdivision Code	Yes	Douglas County Subdivision Resolution, October 29, 1991, as subsequently amended	County	Douglas County Department of Community Development
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency

The Douglas County Subdivision Resolution (“DCSR”) requires identification of natural and man-made hazards as part of the submittal requirements for new subdivisions. Approval criteria for subdivisions of land require demonstration by an applicant that hazards have been or can be mitigated or avoided. Public land dedication standards in the DCSR require that lands proposed for dedication as public parks and schools be evaluated for hazards that would preclude development prior to acceptance of the dedication by the county.

Site Plan Code	Yes	DCZR, Sections 27 (Site Improvement Plan) and 32 (Location and Extent)	County	Douglas County Department of Community Development

How has or will this be integrated with the HMP and how does this reduce risk?

The DCZR contains standards for review of site plans for development of nonresidential, multi-family, and public facility projects. Mitigation or avoidance of hazards is evaluated in the review process for all three application types (use by special review, site improvement plan, and location and extent).

Stormwater Management Code	Yes	O-022-001 – Stormwater Ordinance – Grading, Erosion and Sediment Control; Drainage, Erosion and Sediment Control; Operations and Maintenance of Stormwater Management Facilities; and Illicit Discharge Detection and Elimination, 2022	County	Douglas County Department of Community Development

How has or will this be integrated with the HMP and how does this reduce risk?

The overall objectives of the ordinance related to grading, erosion, and sediment control and drainage, erosion, and sediment control are:

- To ensure the adequate design, implementation, and maintenance of BMPs at applicable construction sites; and
- To establish a process to require erosion and sediment controls, as well as sanctions and procedures, adequate to ensure compliance with this ordinance; and
- To ensure Douglas County is in compliance with its CDPS Permit No. COR-080000 and No. COR-090000, along with the Colorado Department of Public Health and Environment, Water Quality Control Commissioner’s Regulations No. 61, 72, and 73, as amended, respectively

Post-Disaster Recovery/ Reconstruction Code	No	-	-	-

How has or will this be integrated with the HMP and how does this reduce risk?

Real Estate Disclosure Requirements	Yes	C.R.S. 38-35.7-102	State	Sellers and Landlords of commercial or residential property

How has or will this be integrated with the HMP and how does this reduce risk?

In Colorado, real estate transactions involving properties located in flood zones are subject to specific disclosure requirements. Sellers must disclose any known flood damage to the property, which includes past flooding experiences, the presence of a floodplain, and whether the property is covered by flood insurance. Failure to disclose this information can lead to legal repercussions, including claims of misrepresentation or fraud. Sellers are required to provide buyers with access to the current Flood Insurance Rate Map (FIRM) and any related documentation that outlines the specific flood risk associated with the property. This transparency is crucial for buyers to make informed decisions and understand their liabilities regarding flood insurance and the potential for future flooding events.

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Growth Management	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Environmental Protection Ordinance(s)	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Flood Damage Prevention Ordinance	Yes	Flood Damage Prevention Ordinance, 2016	Federal, State, County and Local	Public Works
How has or will this be integrated with the HMP and how does this reduce risk?				
It is the purpose of this Title to promote public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:				
• Protect human life and health; • Minimize expenditure of public money for costly flood control projects; • Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public; • Minimize prolonged business interruptions; • Minimize damage to critical facilities, infrastructure and other public facilities such as water, sewer and gas mains; electric and communications stations; and streets and bridges located in floodplains; • Protect the storage capacity of floodplains and assure retention of sufficient floodway area to convey flood flows which can be reasonably expected to occur; • Protect the hydraulic characteristics of small watercourses, including the gulches, sloughs and artificial water channels used for conveying floodwaters, which make up a portion of the urban drainage system; • Help maintain a stable tax base by providing for sound use and development of flood-prone areas in such a manner as to minimize future flood blight areas; and • Ensure that potential buyers are notified that property is located in a flood hazard area so as to protect individuals from purchasing floodplain lands for unsuitable purposes.				
Wellhead Protection	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Emergency Management Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Change Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
PLANNING DOCUMENTS				
General/Comprehensive Plan	Yes	Douglas County 2040 Comprehensive Master Plan, 2019	County	Department of Community Development
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
The Douglas County 2040 Comprehensive Master Plan (“2040 CMP”) includes mapping of environmental constraints and hazards across the county. That information is then supplemented by site-specific studies performed as part of land use applications. Goals, objectives, and policies in the 2040 CMP support development outside of hazard areas or mitigation of hazards if they cannot be avoided. Conformance with the 2040 CMP is an approval criterion for all significant land use application types in the DCZR and DCSR.				
Capital Improvement Plan	Yes	Capital Improvement Program (CIP) Progress Report, 2023	County	Public Works
How has or will this be integrated with the HMP and how does this reduce risk? The Transportation Capital Improvements Program (CIP) is managed effectively and economically to maintain and improve the overall reliability, condition, safety, and traffic operations of Douglas County’s transportation system. The purpose of the Transportation Capital Improvements Program Progress Report (2017 through 2022) is to demonstrate to the citizens of Douglas County, Colorado, (the County) that revenues collected for the Transportation Capital Improvements Program (CIP) are managed effectively and economically to maintain and improve the overall condition, safety, operations, and expansion of Douglas County’s transportation system.				
Disaster Debris Management Plan	Yes	All Hazards Debris Management Plan, 2022	County	Emergency Management
How has or will this be integrated with the HMP and how does this reduce risk? This Plan has been developed to provide the framework for County government and other entities to clear and remove debris generated during a public emergency within the jurisdictional limits of Douglas County. This plan unifies the efforts of public and private organizations for a comprehensive and effective approach to: • Provide organizational structure, guidance, and standardized guidelines for the clearance, removal, and disposal of debris caused by a major debris-generating event. • Establish the most efficient and cost-effective methods to resolve disaster debris removal and disposal issues. • Initiate and coordinate private sector debris removal and disposal contracts to maximize cleanup efficiencies when deemed appropriate by Douglas County officials. • Expedite debris removal and disposal efforts that provide visible signs of recovery designed to mitigate the threat to the health, safety, and welfare of citizens. • Coordinate partnering relationships through communications and pre-planning with local, State, and Federal agencies that have debris management responsibilities. • Communicate with and guide citizen actions for clearing private properties.				
Floodplain Management or Watershed Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Stormwater Management Plan	Yes	Storm Drainage Design and Technical Criteria Manual	County	Public Works
How has or will this be integrated with the HMP and how does this reduce risk? The Douglas County Storm Drainage Design and Technical Criteria Manual specifies the policies and minimum technical criteria for the planning, analysis, and design of storm drainage systems within unincorporated Douglas County. All drainage reports and plans, drainage system analyses, and drainage system designs, submitted as a requirement of the Douglas County Zoning or Subdivision Resolutions, shall comply with these criteria.				
Open Space Plan	Yes	2030 Parks, Trails and Open Space Master Plan, 2012	County	Community Planning
How has or will this be integrated with the HMP and how does this reduce risk? The purpose of the 2030 Douglas County Parks, Trails and Open Space Master Plan (the “PTOS Plan” or “Plan”) is to establish a baseline of community-identified values that will guide decision-making processes in the development and management of parks and trails, and in the preservation and conservation of open space within Douglas County. An				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
element of the 2030 Douglas County Comprehensive Master Plan (“2030 CMP” or “CMP”), this updated PTOS Plan builds on goals, objectives, and policies of the 2030 CMP to foster integration of the two plans. The PTOS Plan serves as a basis for community conversation among citizens, appointed and elected officials, and County staff as a means to protect and enhance parks, trails, and open space as an important component of the high quality of life within the County. The PTOS Plan also presents a series of maps depicting a wide variety of conditions across the County, including existing and proposed park facilities, acquired and conserved open space lands, and existing County regional and open space trail corridors.				
Urban Water Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Habitat Conservation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Economic Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Wildfire Protection Plan	Yes	Douglas County Wildfire Protection Plan, 2022	County, State	Wildfire Mitigation Unit
How has or will this be integrated with the HMP and how does this reduce risk? The DC CWPP, revised in 2022, integrates with HMP through collaboratively developed wildfire preparedness and mitigation strategies and actions that protect residents, infrastructure, and the natural and built environments through • Education, outreach and engagement programs • Fuels treatment projects • Structure hardening • Identifying current policies and regulations, and potential future policy and regulatory programs and actions • Identifying current and potential future funding sources and recommendations Management actions found in the plan further align with the pillars of the National Cohesive Wildland Fire Management Strategy and the All Lands All Hands approach to wildland fire management.				
Community Forest Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Transportation Plan	Yes	2050 Transportation Master Plan, 2026	County	-
How has or will this be integrated with the HMP and how does this reduce risk? The primary purpose of the 2050 Transportation Master Plan (TMP) is to define a long-range vision for a multimodal transportation system that offers more choices in how people travel in Douglas County. The County’s Goal is to keep the traveling public safe, keep the traveling public and goods moving, and the economy growing. The TMP implements these goals through a comprehensive evaluation of the existing status of the road network, including congestion levels and physical condition; projections for future demands based on pending and potential growth and development trends; and integration of recent transportation planning efforts, including specialized studies and efforts by the County’s municipalities and state and regional agencies. The TMP guides the County’s capital improvement program and facilitates the effective investment of public funds for transportation system improvement.				
Agriculture Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Climate Action/ Resilience/Sustainability Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Tourism Plan	Yes	Recreation and Tourism Plan, 2017	County	Department of Community Development
How has or will this be integrated with the HMP and how does this reduce risk? Douglas County has created a Recreation and Tourism Plan to identify current opportunities and future needs. Adopted as a sub-section of the Douglas County Comprehensive Master Plan, the Recreation and Tourism Plan establishes a foundation for future recreation and tourism planning. Douglas County's extensive natural resource base and rich rural heritage are the foundation of the existing recreation and tourism industry. Both private and public interests provide recreation and tourism opportunities. Community groups, clubs, private vendors, and governments sponsor a variety of festivals and cultural activities that can occur in different locations around the County and bring residents and tourists together.				
Business/ Downtown Development Plan	Yes	Planned Development Guides, 2015; 2021; 2023; 2024	County	Department of Community Development
How has or will this be integrated with the HMP and how does this reduce risk? The Planned Development Guide (PDG) sets forth land uses and development standards; regulates the use of land and the use, bulk, maximum height, minimum lot area, minimum lot width, and minimum yard spaces of buildings; provides for a substantial Nonurban Use Area; provides regulations for uses permitted therein and accessory buildings and uses; provides additional supplementary regulations; and defines certain terms used therein. Several PDGs have been developed for areas within Douglas County including: • Castle Pines Village (July 2015) • Highlands Ranch (October 2023) • Pinery (July 2021) • Roxborough Village (May 2024)				
Other	Yes	Comprehensive Bike Plan, 2009	County	Public Works
How has or will this be integrated with the HMP and how does this reduce risk? Douglas County staff developed a comprehensive Bicycle Plan that was implemented in 2009, combining off-street trails with new on-street bike lanes. The County regularly works with local jurisdictions and regional stakeholders to review and update the Bicycle Plan. The Bicycle Map is updated as needed to reflect current bicycle facilities in the area.				
Other	Yes	Mineral Extraction Plan, 2019	County	Department of Community Development
How has or will this be integrated with the HMP and how does this reduce risk? The Mineral Extraction Plan (MEP) is a sub-element of the Douglas County Comprehensive Master Plan (CMP) that is focused specifically on mineral extraction. As a component of the CMP, the MEP reflects, acknowledges, and balances the common values, rights, and needs of all County residents and landowners and protects its unique and diverse resources. The plan attempts to balance the County's need for minerals against the potential impacts of extraction. Mineral extraction is necessary in the development of homes, roads, and office buildings and, therefore, contributes to the economic viability of the County. Reclaimed mineral extraction sites, moreover, provide opportunities for wildlife habitat, trail corridors, and other active and passive recreational uses.				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
RESPONSE/RECOVERY PLANNING				
Emergency Operations Plan	Yes	Emergency Operations Plan, 2025	County	Emergency Management
How has or will this be integrated with the HMP and how does this reduce risk? The Douglas County Emergency Operations Plan has been developed in accordance with the requirements for local emergency planning established under the State of Colorado Disaster Emergency Act of 1992 and is aligned with the National Response Framework (NRF) and National Incident Management System (NIMS). It meets the requirements of other State and Federal guidelines for local emergency management plans and programs. The Douglas County EOP establishes the structure for a coordinated response to various types of natural, technological, and manmade emergencies, disasters, or terrorist attacks. The EOP provides an overview of how Douglas County public safety partners collaborate, plan, and prepare for a hazardous incident that threatens lives, property, and natural resources.				
Continuity of Operations Plan	Yes	Emergency Operations Plan, 2025	County	Emergency Management
How has or will this be integrated with the HMP and how does this reduce risk? The Continuity of Operations Plan is held within the EOP. The Plan prepares the County for a wide range of emergencies, including natural disasters, technological failures, and other crises. The COOP helps identify and prioritize essential functions, ensuring they can be maintained or quickly resumed during disruptions; provides a structured plan to minimize the impact of emergencies on operations, thereby reducing potential losses and maintaining service delivery; and provides a roadmap for recovery, outlining steps to restore normal operations as swiftly as possible after an incident.				
Substantial Damage Response Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Threat and Hazard Identification and Risk Assessment	Yes	Hazard Mitigation Plan, 2026	County	Emergency Management
How has or will this be integrated with the HMP and how does this reduce risk? The Hazard Mitigation Plan acts as the County's THIRA for the identified hazards of concern.				
Post-Disaster Recovery Plan	Yes	Disaster Recovery Plan, 2019	County	Emergency Management
How has or will this be integrated with the HMP and how does this reduce risk? The intent of the Douglas County Disaster Recovery Plan is to provide a comprehensive framework for recovering from disasters and emergencies, particularly those incidents that are large or catastrophic. It is a guide for roles and responsibilities, prioritization, and decision-making practices in disaster recovery situations. The document is designed to map recovery actions that will result in a resilient and capable community. This plan was designed with both the short-term and long-term recovery needs in mind and thus takes care in assigning roles and responsibilities and any shifts that will occur in the transition between short-term and long-term recovery.				
Public Health Plan	Yes	Public Health Improvement Plan, 2021	County	Health Department
How has or will this be integrated with the HMP and how does this reduce risk? The public health improvement plan outlines strategies and actions to enhance community health, addressing key health issues through data-driven approaches and stakeholder collaboration. Data analyzed for the PLAN included primary and secondary data. Data came from local, state, and national sources such as Vital Statistics and Records from the CDPHE, U.S. Census Bureau, Behavioral Risk Factor Surveillance System, Healthy Kids Colorado Survey (HKCS), and Colorado Health Access Survey. To develop the health priorities, DCHD considered community input, the				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency

size and severity of the problem, and the opportunities and challenges that support or complicate the successful achievement of goals to improve the health and safety of Douglas County citizens.

Other	Yes	Community Health Assessment, 2021	County	Health Department

How has or will this be integrated with the HMP and how does this reduce risk?

The purpose of the community health assessment is to learn about the community: the health of the population, contributing factors to higher health risks or poorer health outcomes of identified populations, and community resources available to improve health status. Community health assessments describe the health of the population, identify areas for health improvement, identify contributing factors that impact health outcomes, and identify community assets and resources that can be mobilized to improve population health.

Other	Yes	2023-2026 Strategic Plan, 2023	County	Health Department

How has or will this be integrated with the HMP and how does this reduce risk?

Douglas County Health Department's (DCHD) strategic plan is a road map to ensure the needs identified in the 2021-2026 Public Health Improvement Plan are met. It defines and clarifies what is aimed to achieve, how the goals will be accomplished, and how to know if it is successful. The goals in this strategic plan align with the Department values, and its outcomes and objectives reinforce accountability to staff, partners, and most importantly, our community. The strategic plan helps DCHD staff prioritize work and understand how to allocate resources. It is a guiding tool that does not replace core activities or grants already underway; instead, the plan informs and complements program work plans and helps to direct department activities.

Other	Yes	Fire Operating Plan, 2025	County	Emergency Management

How has or will this be integrated with the HMP and how does this reduce risk?

This Fire Operating Plan is to set forth standard operating procedures, agreed procedures, and responsibilities to implement cooperative wildfire protection on all lands within Douglas County. It serves as a guide for fire departments and organizations to respond effectively to emergencies, including natural disasters, technological emergencies, and biological incidents. The plan outlines the responsibilities and duties of personnel, establishes a framework for comprehensive emergency management, and facilitates coordination with local first responders.

Other	Yes	Comprehensive Emergency Management Plan, 2021	County	Emergency Management

How has or will this be integrated with the HMP and how does this reduce risk?

Douglas County maintains a Comprehensive Emergency Management Plan (CEMP), which provides uniform policies and procedures for the effective coordination of actions to prevent (when possible), prepare for, respond to, recover from, and mitigate natural or man-made disasters that might affect the health, safety, or general welfare of Douglas County residents and visitors. The CEMP is flexible, adaptable and scalable, and articulates the roles and responsibilities of governmental entities, public and private partners. The CEMP is designed to accomplish the following:

- Minimize suffering, loss of life, personal injury, and property damage resulting from hazardous or emergency conditions.
- Provide a framework for a comprehensive emergency management system that addresses all aspects of emergency prevention, preparedness, response, recovery, and mitigation.
- Minimize disaster-related material shortages and service system disruptions that could have adverse impacts on county residents and visitors.
- Provide immediate relief and promote short-term and long-term recovery following a disaster.

The CEMP is compiled of several s. Those relative to hazard mitigation include the Damage Assessment Annex, Severe Weather Annex, and Wildfire Annex.

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Other	Yes	Rapid Needs Assessment Operating Plan	County	Emergency Management
How has or will this be integrated with the HMP and how does this reduce risk? The purpose of this operating plan is to provide guidance to all agencies involved in rapid needs assessment and will be incorporated in the Douglas County Comprehensive Emergency Management Plan (CEMP). It will also provide those involved in conducting a Rapid Needs Assessment with a tool to facilitate planning and implementing rapid needs assessment procedures, which will provide local personnel with the: Skills and knowledge needed to collect and report disaster intelligence immediately following an event. Procedures and forms they need to conduct rapid needs assessment				

2.3.2 Development and Permitting Capability

Table 2-3 summarizes the capabilities of Douglas County to oversee and track development.

Table 2-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits?	Yes	-
- If you issue development permits, what department is responsible? - If you do not issue development permits, what is your process for tracking new development?	-	Building Permits are issued for unincorporated areas of Douglas County. Building permits authorize the performance of a specified activity and allow the Building Official to protect the occupants of buildings by reducing the potential hazards of unsafe construction and ensuring public health, safety, and welfare. The Building Division also reviews construction documents and issue permits for the installation and alteration of buildings and structures, inspect the premises for permits that have been issued and enforce compliance with the provisions of the adopted Code.
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	Potential development locations are overlaid with the wildfire hazard area.
Do you have a buildable land inventory? If you have a buildable land inventory, please describe	No	-
Describe the level of buildout in your jurisdiction.	N/A	The unincorporated areas of the County are not completely built out and there is room for development. Much of this area is kept as natural greenspace.

2.3.3 Administrative and Technical Capability

Table 2-4 summarizes potential staff and personnel resources available to Douglas County and their current responsibilities that contribute to hazard mitigation.

Table 2-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
ADMINISTRATIVE CAPABILITY		
Planning Board	Yes	The Planning Commission ("PC") is made up of volunteer county residents that are appointed to serve on the PC by the Board of County Commissioners ("BCC"). The PC provides recommendations to the BCC regarding land use applications such as rezonings, subdivisions, and site development projects. The PC also provides recommendations to the BCC regarding proposed land use regulations and amendments to adopted regulations. The PC is responsible for adopting and amending the Douglas County Comprehensive Master Plan.
Zoning Board of Adjustment	Yes	The Board of Adjustment ("BOA") considers requests for variances to zoning standards such as setbacks, building heights, minimum lot sizes, and off-street parking requirements. The BOA must find that the variance would not create a substantial detriment to the public good.
Planning Department	Yes	Planning Services and Resources Divisions of the Department of Community Development are two divisions that oversee the County's land use planning functions. These functions include long-range planning, development review, public assistance, and zoning inspection and compliance.
Mitigation Planning Committee	Yes	The Douglas County Wildfire Action Collaborative brings together elected leaders, fire experts, foresters, emergency managers and private stakeholders to reduce wildfire risk and restore forest health across the Front Range with a dedicated focus on protecting our communities in Douglas County.
Environmental Board/Commission	Yes	Parks and Recreation builds and maintains parks, open lands, trails throughout Douglas County and manages recreation at Rueter-Hess Reservoir. The department consistently inspects properties to identify and allocate resources to proactively mitigate potential hazards. The department also supports County operations in the event of natural disasters.
Open Space Board/Committee	Yes	Douglas County Division of Open Space and Natural Resources seeks to enhance the quality of life for residents by protecting wildlife habitats and natural resources in our public access properties, historic sites and scenic views. All while preserving Douglas County's rural heritage while providing a wide range of compatible outdoor recreation and educational opportunities. We also offer special event / special use permits for our open space properties.
Economic Development Commission/Committee	Yes	Douglas County partners with, and provides support to, the Douglas County Economic Development Corporation and the Denver South Economic Development Corporation. These organizations are committed to fostering the economic health of Douglas County and the Denver Metro.

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Public Works/Highway Department	Yes	The Department of Public Works strives to provide a safe and reliable transportation network to enhance the quality of life within Douglas County. We maintain the roads and storm drainage systems, remove snow and ice, erect and maintain traffic signals, signage, and striping, construct new transportation infrastructure, and control noxious weeds. We oversee the design and construction of new developments, roads, and buildings. The Department includes Engineering, Operations, Traffic, Building, Development Review, and Stormwater.
Construction/Building/Code Enforcement Department	Yes	The Building Department handles permitting and inspections and considers wildfire mitigation during permit distribution.
Emergency Management/Public Safety Department	Yes	Douglas County Sheriff's Office cultivates a safe environment for families to live and a place for businesses to thrive.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	This is part of the Department of Public Works' responsibility and the Douglas County Parks and Recreation Department's responsibilities.
Mutual aid agreements	No	-
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	-
Other	Yes	Health Department
TECHNICAL/STAFFING CAPABILITY		
Planners or engineers with knowledge of land development and land management practices	Yes	Community Development, Public Works Operations, Public Works Engineering
Engineers or professionals trained in building or infrastructure construction practices	Yes	Public Works Operations, Public Works Engineering
Planners or engineers with an understanding of natural hazards	Yes	Community Development, Public Works Engineering
Staff with expertise or training in benefit/cost analysis	Yes	Community Development, Public Works Engineering
Professionals trained in conducting damage assessments	Yes	OEM, Public Works
Personnel skilled or trained in GIS and/or Hazus applications	Yes	Community Development, Public Works Engineering, Public Works Operations, Information Technology, Assessors, Sheriff's Office
Environmental scientists familiar with natural hazards	No	-
Surveyors	Yes	Public Works Engineering
Emergency manager	Yes	OEM
Grant writers	No	-

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Resilience Officer	Yes	Resiliency Planner – Douglas County
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

2.3.4 Fiscal Capability

Table 2-5 summarizes financial resources available to Douglas County.

Table 2-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	Eligible: Yes Accessible: Pending
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	Yes, with voter approval
User fees for water, sewer, gas, or electric service	No - Douglas County does not have stormwater utility or stormwater service fees.
Impact fees for homebuyers or developers of new development/homes	Limited ability but do not
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes, with voter approval
Incur debt through special tax bonds	Maybe with voter approval
Incur debt through private activity bonds	No, County cannot incur debt through Private Activity Bonds, only private entities can. Douglas County does have ability to approve issuance
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	No
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

2.3.5 Education and Outreach Capability

Table 2-6 summarizes the education and outreach resources available to Douglas County.

Table 2-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Communication & Public Affairs, Sheriff Public Information Officer, Combined Courts
Personnel skilled or trained in website development	Yes	Communication & Public Affairs

Outreach Resources	Available? (Yes/No)	Comment
Hazard mitigation information available on your website	Yes	County Webpage
Social media for hazard mitigation education and outreach	Yes	Facebook, X, LinkedIn, Youtube, Instagram, Nextdoor
Citizen boards or commissions that address issues related to hazard mitigation	Yes	Planning Commission, Douglas County Wildfire Action Collaborative
Warning systems for hazard events	Yes	IPAWS, Mass Notification System, Social Media, NWS, EAS, Weather radios, Local media (radio and TV)
Natural disaster/safety programs in place for schools	No	-
Organizations that conduct outreach to socially vulnerable populations and underserved populations	No	-
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	Mass Notification System, CERT, Social Media, Disaster Preparedness Guides, Public outreach, Training and exercise programs

2.3.6 Community Classifications

Table 2-7 summarizes classifications for community programs available to Douglas County.

Table 2-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	Yes	5	5/2019
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	4	11/2019
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
National Weather Service StormReady Certification	Individual fire departments participate	-	-
Firewise Communities classification	Yes	n/a	1/2019
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable

2.4 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 2-1 is responsible for maintaining this information.

2.4.1 NFIP Statistics

Table 2-8 summarizes the NFIP policy and claim statistics for the unincorporated areas of Douglas County.

Table 2-8. Unincorporated Douglas County NFIP Summary of Policy and Claim Statistics

Policies in Force	231
Paid Claims	52
# Repetitive Loss Properties (NFIP definition)	0
# Repetitive Loss Properties (FMA definition)	0
# Severe Repetitive Loss Properties	0

NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than \$1,000 were paid by the NFIP within any rolling 10-year period since 1978.

FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.

Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.

Source: FEMA 2025

2.4.2 Flood Vulnerability Summary

Table 2-9 provides a summary of the NFIP program in the unincorporated areas of Douglas County.

Table 2-9. NFIP Summary

NFIP Topic	Comments
Flood Vulnerability Summary	
Describe areas prone to flooding in your jurisdiction.	No frequently flooded areas in Douglas County
Do you maintain a list of properties that have been damaged by flooding?	No, not at this time.
Do you maintain a list of property owners interested in flood mitigation?	No, not at this time.
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	None, at this time.
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	No, not at this time.
How do you make Substantial Damage determinations?	Rarely needed, but the County follows FEMA and NFIP guidance.
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	None, at this time.
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	None, at this time.
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Yes, the County flood hazard maps adequately address flood risk.

NFIP Topic	Comments
NFIP Compliance	
What local department is responsible for floodplain management?	Public Works Engineering
Are any certified floodplain managers on staff in your jurisdiction?	Yes, the County has certified floodplain managers on staff.
Do you have access to resources to determine possible future flooding conditions from climate change?	No, not at this time.
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	No, not at this time.
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	The County conducts Floodplain Development Permit Reviews and helps citizens with FIRM questions or inquiries.
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	The County does not have to do this because structures not allowed in SFHA.
What are the barriers to running an effective NFIP program in the community, if any?	None, at this time.
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No, not at this time.
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	CAV: May 6, 2019 CAC: October 3, 2017
What is the local law number or municipal code of your flood damage prevention ordinance?	Section 18 – Douglas County Zoning Resolution – Floodplain Overlay District
What is the date that your flood damage prevention ordinance was last amended?	5/10/2016
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	Exceeds, Structures are not allowed to be placed in SFHA's.
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	Extensive review of proposed development.
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	The County is interested in improving the CRS classifications.

2.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 2-10 through Table 2-12.

Table 2-10. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
2020				
Total Permits	1,024	98	266	1,388
Permits within SFHA	0	0	0	0
2021				
Total Permits	1,425	179	226	1,830
Permits within SFHA	0	0	0	0
2022				
Total Permits	1,175	377	393	1,945
Permits within SFHA	0	0	0	0
2023				
Total Permits	832	147	178	1,157
Permits within SFHA	0	0	0	0
2024				
Total Permits	984	92	335	1,411
Permits within SFHA	0	0	0	0

SFHA = Special Flood Hazard Area (1% flood event)

Table 2-11. Recent Major Development and Infrastructure from 2020 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
Cross Creek	Single-family detached residential	102 lots	Scott Avenue and Moxie Circle	Wildfire Hazard Overlay District Adjacent to Floodplain Overlay District	Subdivision under construction
Trails	Single-family detached residential	139 lots	Piney Lake Road and S. Sampson Gulch Way	Wildfire Hazard Overlay District	Subdivision under construction
Piney Lake Trails	Single-family detached residential	176 lots	Piney Lake Road and County Line Road	Wildfire Hazard Overlay District	Subdivision under construction
Fields	Single-family detached residential	130 lots	North of Hilltop Road and Singing Hills Road intersection	Wildfire Hazard Overlay District	Subdivision under construction
Scott Avenue PD	Multi-family residential	220 units	Scott Avenue and Interlocken Street	Wildfire Hazard Overlay District	Approved plans, construction pending

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
				Adjacent to Floodplain Overlay District	
374 Inverness	Multi-family residential	325 units	374 Inverness Pkwy.	None	Approved plans, construction pending
King Soopers – Pinery Village	Retail Commercial	132,000 sq. ft.	6755 Prospector Lane	None	Approved plans, under construction
Echelon at County Line	Multi-family residential	317 units	Castle View Filing 1, 2nd Amendment, Lots 1A and 2A	None	Approved plans, construction pending
The Sophia	Multi-family residential	158 units	9696 Maroon Circle	None	Complete
Compass Meridan	Multi-family residential	448 units	Jamaica Street and Storm Peak Street	None	Complete
Apex Meridian	Multi-family residential	208 units 156 units 156 units	8767 Jamaica Street 362 Inverness Pkwy. 363 Inverness Pkwy.	None	Complete
Lansing Circle	Single-family detached residential	137 lots	Meridian Blvd. and Lansing Cir.	Adjacent Floodplain Overlay	Subdivision under construction
Rock Canyon Planned Development	Residential	54	39.52303, -104.92	Hazardous Materials	Completed
Waterton Road (Rampart Range Road to Airport Road)	Capital Improvement Project	-	Rampart Range Road to Airport Road	Hazardous Materials	Complete
Airport Road Improvements west of US 85	Capital Improvement Project	-	Airport Road	Hazardous Materials	Complete
I-25 South Gap Project (Castle Rock to Monument)	Capital Improvement Project	-	I-25 South	Hazardous Materials	Complete
US85 Widening County Line to Highlands Ranch Parkway	Capital Improvement Project	-	US85	Hazardous Materials	Complete
County Line Road Widening Broadway to University	Capital Improvement Project	-	County Line Road	Hazardous Materials	On-going
Hilltop Road Widening – Legend Highschool to Crestview Drive	Capital Improvement Project	-	Hilltop Road	Hazardous Materials	On-going

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
Crystal Valley Interchange	Capital Improvement Project	NA	Crystal Valley Interchange	Hazardous Materials	On-going

Table 2-12. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones	Description / Status of Development
Zebulon Regional Sports Complex	Sports complex with play fields, ice arena	No specifics available at this time	East of Moore Road and Waterton Road intersection	Wildfire Hazard Overlay District	Development Approval Stage
Range	Single-family detached residential	550	US Highway 85 and Airport Road	Wildfire Hazard Overlay District	Development Approval Stage
Pinery Meadows	Single-family attached and detached residential	96 detached lots 40 attached lots	Pinery Center Blvd.	Wildfire Hazard Overlay District Adjacent Floodplain Overlay	Development Approval Stage
Waterton Business Park	Commercial, light industrial, and hotel development	No specifics available at this time	East of Moore Road and Waterton Road intersection	Wildfire Hazard Overlay District	Development Approval Stage
Common Spirit - Meridian	Hospital and medical office buildings	TBD	E-470 and Peoria Street	None	Development Approval Stage
Ramblewood	Single-family detached residential	70 lots	South of Hilltop Road and Merryvale Trail	Wildfire Hazard Overlay District	Development Approval Stage
Happy Canyon Interchange	Capital Improvement Project	-	Happy Canyon Interchange	Hazardous Materials	Design phase - construction in 5-year CIP Estimated cost \$40M
Lincoln Avenue multimodal safety and operational improvements from Park Meadows to Oswego	Capital Improvement Project	-	Lincoln Avenue	Hazardous Materials	Design phase - construction in 5-year CIP Estimated cost \$40M
Crowfoot Valley Road Widening 2 to 4 lanes from Macanta to Bayou Gulch	Capital Improvement Project	-	Crowfoot Valley Road	Hazardous Materials	Planning phase - design & construction in 5-year CIP Estimated cost \$30M

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones	Description / Status of Development
Waterton Road Widening 2 to 4 lanes from Wadsworth to Campfire – includes bridge replacement	Capital Improvement Project	-	Waterton Road	Hazardous Materials	Planning phase – design & construction in 5-year CIP Estimated cost \$26M
US 85 / Titan Parkway Interchange	Capital Improvement Project	-	US 85 / Titan Parkway Interchange	Hazardous Materials	Planning phase – design & construction in 5-year CIP Estimated cost \$22M
Hilltop Road Widening 2 to 4 Lanes (Crestview to Singing Hills and Singing Hills to Flintwood)	Capital Improvement Project	-	Hilltop Road	Hazardous Materials	Design phase – construction in 5-year CIP Estimated cost \$22M

2.6 JURISDICTIONAL RISK ASSESSMENT

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Douglas County's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

2.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the unincorporated areas of Douglas County are shown in Figure 2-1 through Figure 2-2. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which the unincorporated areas of Douglas County has significant exposure. The maps show the location of potential new development, where available.

Figure 2-1. Unincorporated Douglas County Hazard Area Extent and Location Map 1

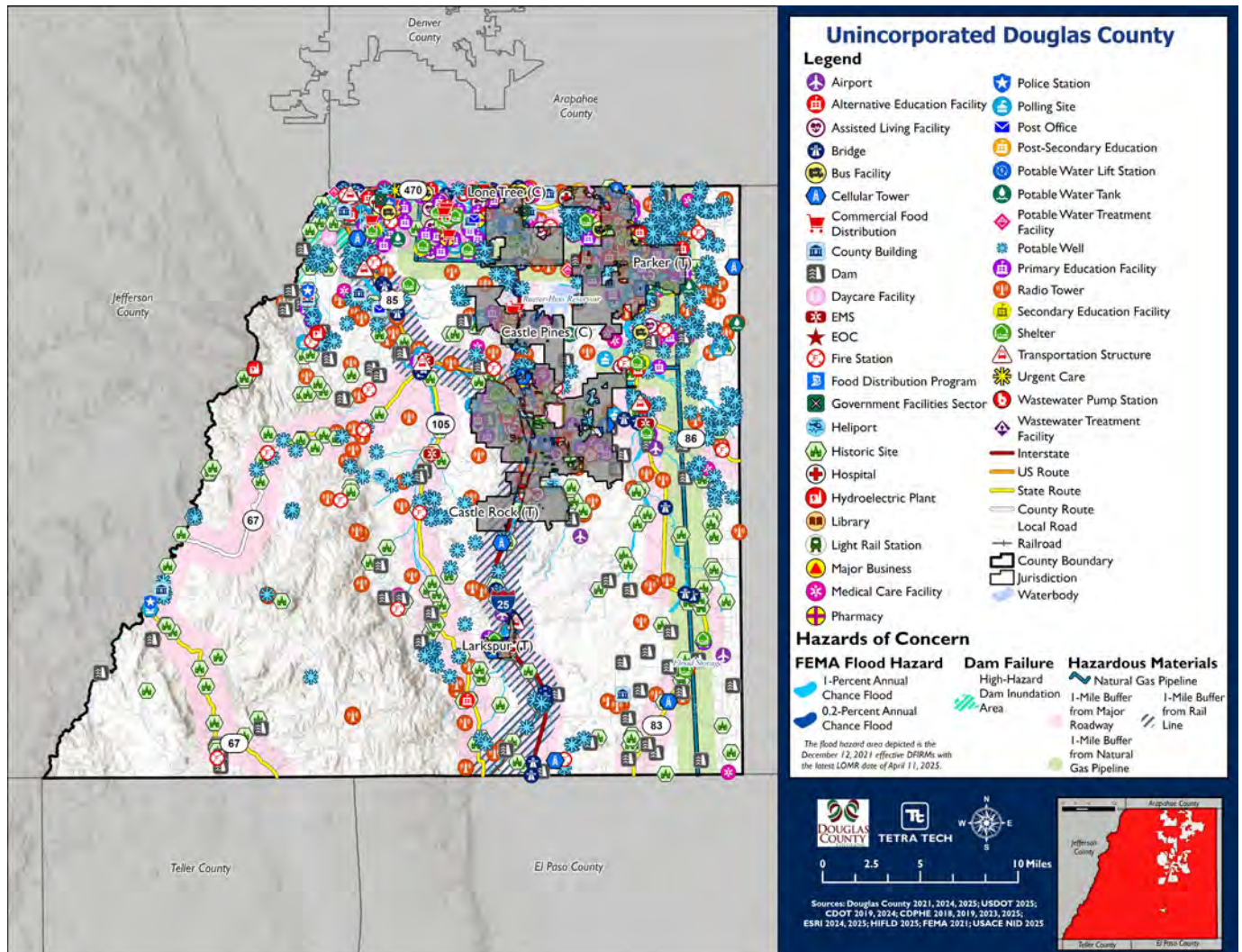
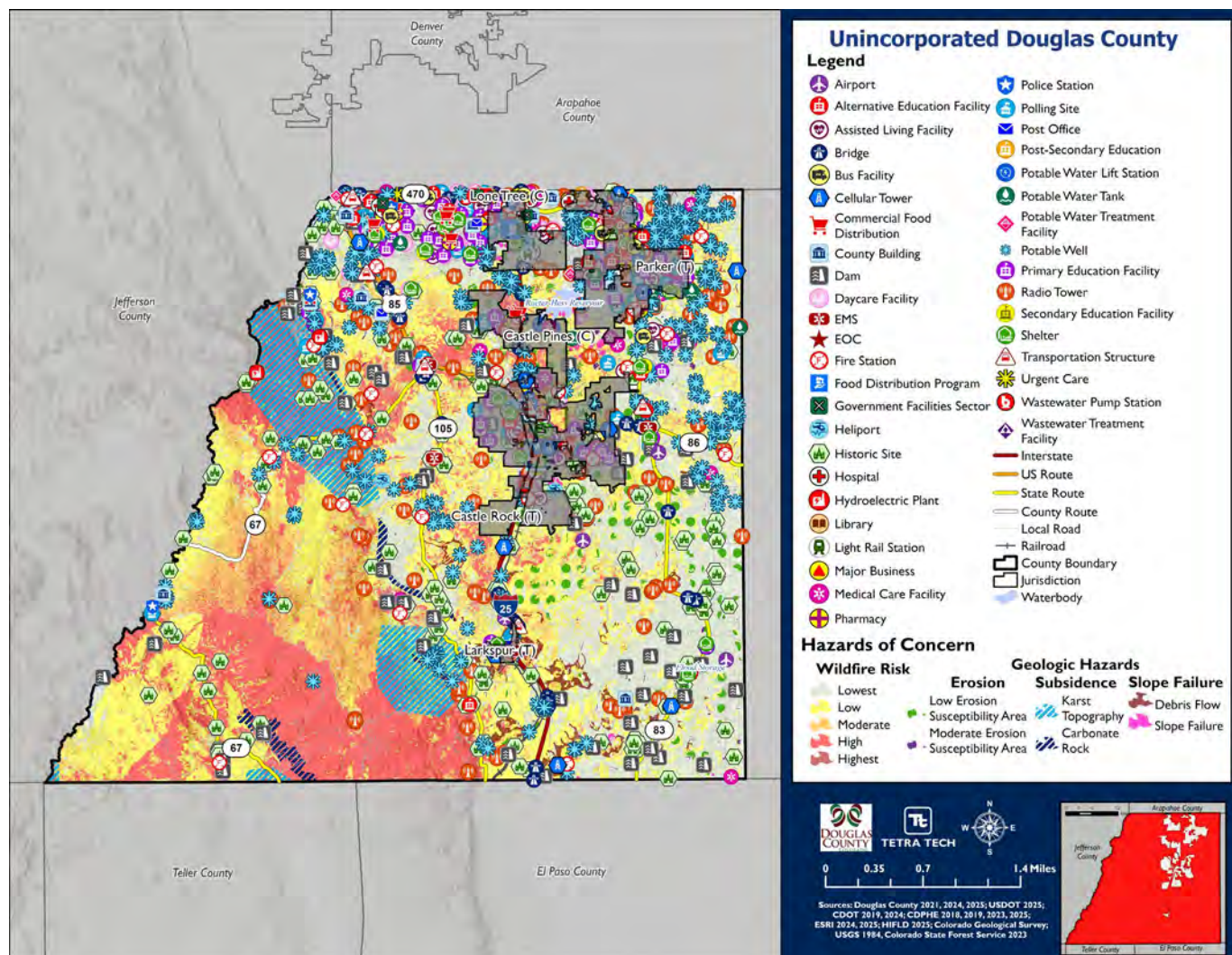


Figure 2-2. Unincorporated Douglas County Hazard Area Extent and Location Map 2



2.6.2 Hazard Event History

The history of natural and non-natural hazard events in Douglas County is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its jurisdictions. Table 2-13 provides details on loss and damage in Douglas County during hazard events since the last hazard mitigation plan update.

Table 2-13. Hazard Event History in Douglas County

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses
March 13-15, 2019	March Blizzard "Bomb Cyclone"	Yes	A rapidly intensifying storm system or bomb cyclone brought hurricane strength winds to the northeast plains of Colorado, along with moderate to heavy snowfall. Peak wind gusts ranged from 60 to 80 mph. Thundersnow produced snowfall rates up to 3 inches per hour just west of Denver. Two records were established at Denver International Airport. A record non-thunderstorm wind gust of 80 mph broke the previous record of 63 mph set in March 13, 2009. Widespread outages, multi-vehicle accidents and road closures prompted the governor to declare a state of emergency which activated the Colorado National Guard to assist state and local authorities in rescuing hundreds of stranded motorists. Disaster declarations included the following counties and cities: Adams, Arapahoe, Douglas, Elbert counties, as well as the city of Aurora. Multiple accidents included a 100-car pileup on Interstate 25, from MM 285 to the WY border; with another 100-car accident south of Denver toward Monument. The number of people who lost power during the storm totaled 445,000. Xcel energy called over 500 employees work to restore power with additional 300 out-of-state workers on their way to assist. Approximately 85,000 people, mostly in the Denver area, were without electricity the following day. At least 335 vehicles were stuck and abandoned on Interstate 25 near Larkspur. In Denver, 250 vehicles were abandoned during the storm. School buses were used to rescue stranded drivers. Warming centers and shelters opened area wide.	EOC Activated, County Disaster Declaration Signed.
April 10, 2019	Spring Storm, Winter Weather	N/A	A storm system produced heavy snow in the mountains, with moderate snowfall and strong gusty winds across the lower elevations. Peak wind gusts generally ranged from 35 to 55 mph and produced near blizzard conditions at times with areas of drifting snow and reduced visibility.	EOC Activated, No declaration.

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses
September 6, 2019	Severe Weather (Hail, Thunderstorm, Tornado)	N/A	Severe thunderstorms produced a combination of large hail (1.25 inches) and heavy rain. A brief tornado touched down in an open field near Highlands Ranch. A blast of lightning triggered a house fire in Douglas County, causing extensive damage.	No damages or losses to County facilities, infrastructure, or operations.
October 29-30, 2019	Severe Winter Weather	N/A	A winter storm brought record breaking temperatures and up to a foot of snow. Numerous schools were closed due to heavy snow and hazardous road conditions. Storm totals included: 10 inches near Parker; 7.5 inches near Castle Pine.	No damages or losses to County facilities, infrastructure, or operations.
January 20, 2020 - May 11, 2023	Pandemic EM-3436-CO, DR-4498-CO	Yes	During the COVID-19 pandemic disaster declaration, there were a reported 102,146 cases of COVID-19 and 527 COVID-19 related deaths in Douglas County.	Masking mandates, social distancing, some remote work.
June 29, 2020	Wildfire, Chatridge Fire	N/A	At approximately 09:49 hrs. on 6.29.20 a grass fire was reported near Hwy 85 and Chatridge Court in Douglas County. The fire was first reported at 09:49hrs on 6.29.20 to South Metro Fire. Crews arrived and ordered additional resources. Fire control was hampered by fuel type, dry conditions and winds out of the west. Four-hundred sixty-one (461) total acres were involved in Douglas County. The Douglas County IMT deployed in support of the incident at 1800 hours on Monday. South Metro Fire and Rescue transferred command of the incident to the Douglas County IMT at 00:00 6/30/2020. The IMT managed the fire through Tuesday, June30th. The fire was transitioned back to South Metro at 24:00 hrs. for final mop-up actions.	A CodeRed evacuation notice was launched for the entire Backcountry subdivision. Several structures were threatened – but ultimately no structures were damaged or destroyed. The designated evacuation point was Thunder Ridge High School. The Douglas County Fairgrounds was opened for Large and Small Animal sheltering.
March 13-14, 2021	Severe Winter Weather, EOC Activated, No declaration	N/A	Strong winds compounded with heavy snowfall made the roadways impassable in the afternoon and evening. Peak wind gusts to 48 mph produced extensive drifting snow. Drifts ranged from 3 to 6 feet deep. The heavy wet snow caused extensive tree damage and produced power outages.	No damages or losses to County facilities, infrastructure, or operations.
November - December 2021	Drought	N/A	Portions of the County were in a severe to extreme drought classification (D2/D3) through the months of November and December.	No damages or losses to County facilities, infrastructure, or operations.
February 23, 2023	Severe Weather (Extreme Cold), Severe Winter Weather	N/A	Bands of moderate to heavy snow showers coupled with strong winds produced poor visibilities and hazardous driving conditions. During the morning hours on the 23rd, wind	No damages or losses to County facilities, infrastructure, or operations.

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses
			chill temperatures ranged from -25°F to -30°F.	
May 12-13, 2023	Flood	N/A	Swollen creeks and streams produced flooding and flash flooding. Numerous hiking trails in Castlewood Canyon State Park were closed as they were underwater and impassable. Three men in the foothills of Douglas County had to be rescued when their vehicle got stuck in snow along Rampart Range Road in Pike National Forest.	No damages or losses to County facilities, infrastructure, or operations.
June 22, 2023	Severe Weather (Hail, Thunderstorm, Tornado) DR-4731-CO	Yes	An EF1 tornado touched down just south of CO-470 in the city of Highlands Ranch. Preliminarily the tornado was on the ground for 6.3 miles. No injuries were reported but over 100 trees were downed. Some window/shingle damage has been noted to both houses and commercial properties. Up to 2.5 inches hail occurred.	Initial damage reports included: damage to residential, commercial, government, church and school structures, numerous downed trees, downed traffic lights, broken fences, minor mudslides, flooding, motor vehicle accidents and power outages. No evacuations were ordered or necessary. No residents reported being displaced by tornado damage The primary need was to collect organic debris from approximately 16,000 downed trees and turn the slash into mulch. Citizens were allowed to bring all tree debris to collection sites free of charge.
January 13-16, 2024	Severe Weather (Extreme Cold), Severe Winter Weather	N/A	A long duration snowfall event occurred resulting in several feet of snow. Total snowfall accumulations across the urban corridor and northeast were light, with storm totals generally less than 6 inches, but the icy conditions did cause some travel impacts. Wind chill temperature dropped to -34°F; the record low of -19°F was tied on the morning of the 16th. Some of the plains locations dropped down to -30°F.	No damages or losses to County facilities, infrastructure, or operations.
February 23, 2024	WEINS Ranch Wildfire	N/A	Estimated 153 acres, Level 2 EOC Activation	EOC Activated, No Declaration

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses
			Unified Command, Staging, and Media Staging locations are established. A human and animal evacuation point was established at the Multi-purpose Barn at the Douglas County Fairgrounds. and a Red Cross Sheltering Team was put on standby but is not anticipated to be needed as the CodeRed pre-evacuation has been cancelled. A Temporary Flight Restriction was ordered and subsequently cancelled by Fire Command. A DCSO drone operator was deployed on scene for Situational Awareness (SA). The State Multi-mission Aircraft was launched for aerial situational awareness	
March 14, 2024	Winter Storm Event	N/A	A powerful winter storm struck the Front Range of Colorado March 13th and 14th, 2024, Level 2 Activation of EOC. Heavy snowfall has occurred throughout the County. Douglas County Government is closed. Local municipalities are closed. Heavy snowfall has impacted the whole I-25 corridor, and road conditions remain hazardous. DCSO is on accident alert at this time and working emergency and priority calls for service. Public Works snowplows are deployed and working to keep up with the continued heavy snowfall. Xcel Energy and CORE Energy reporting sporadic, small area power outages in their Douglas County serving areas	EOC Activated, No county declaration.
June 9, 2024	Severe Weather (Hail, Thunderstorm), Flood	N/A	Slow moving thunderstorms produced hail (1.25 inches) and heavy rainfall. There were reports of cars being swamped due to rising waters.	No damages or losses to County facilities, infrastructure, or operations.
July 30 – August 7, 2024	Wildfire	N/A	A fire was contained August 7th after reaching about 579 acres. No structures were lost in the fire. Several firefighters were treated for heat exhaustion. Mandatory evacuations were ordered for the Deer Creek Mesa area and several subdivisions in the area of Ken Caryl.	Technically Jefferson County Fire, no damages or losses to County facilities, infrastructure, or operations.
November 8, 2024	Snowstorm, Winter Storm	N/A	A slow moving and complex storm system affected Colorado from November 5th through November 9th. In some locations of east central and southeast Colorado, historic amounts of snow fell. Snow began to fall on the evening of November 5th, with periods of moderate to heavy snow then affecting the region through the early morning hours of November 9th.	EOC Activated, No Declaration

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses
July 13-25, 2025	Wildfire	N/A	On July 13th, 2025, at about 1400 hours, South Metro Fire and Douglas County Sheriff units were dispatched to the area of Hwy 85 and Titan Road for numerous reports of grass fires. It is believed a southbound train was accidentally sparking small spot fires in the grass next to the tracks. The exact cause is under investigation. Winds pushed the fires to grow rapidly and threaten several areas of private property. Numerous fire units were requested through mutual aid and aggressively engaged all fires, which eventually merged into one large fire. Douglas County Helicopter 5TA and Helitack Crew were instrumental in coordinating with ground units to suppress key portions of the fire to protect life and property. DCSO initiated evacuations of all homes and residents in Louviers, following a Code Red launch with door-to-door notifications. Emergency shelter was established at the DC Fairgrounds. Additional suppression support was provided by DC Public Works dozer and USFS helicopters. By dark, the fire was 90% contained at 130 acres Fireagencies continued to work on hot spots and mop up efforts until the 25th.	EOC Activation, No Declaration

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

2.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Douglas County.

Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions. Douglas County reviewed the hazard ranking to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the County indicated the following:

- Drought risk should be lowered from 'High' to 'Medium' due to water providers have procedures in place.

Table 2-14 shows Douglas County’s final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 2-14. Hazard Ranking

Hazard	Rank
Dam Failure	Low
Drought	Medium
Earthquake	Low
Flood	Medium
Geologic Hazards	Medium
Hazardous Materials	Medium
Pandemic	Medium
Severe Weather	High
Wildfire	High

Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction

Critical Facilities

Table 2-15 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 2-15. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Event	0.2% Event		
Franktown Parker FPB-1	Dam	Yes	Yes	2026-DouglasCo-12	No
Peak Shaving Pond	Dam	Yes	Yes	2026-DouglasCo-12	No
Wakeman	Dam	Yes	Yes	2026-DouglasCo-12	No
Barney Baird #3	Dam	Yes	Yes	2026-DouglasCo-12	No
Castle Rock Reservoir #2	Dam	No	Yes	2026-DouglasCo-12	No
Franktown Parker FPLG-1	Dam	Yes	Yes	2026-DouglasCo-12	No
Franktown Parker FPLG-2	Dam	Yes	Yes	2026-DouglasCo-12	No
Franktown Parker FPM-1	Dam	Yes	Yes	2026-DouglasCo-12	No
Franktown Parker FPR-1	Dam	Yes	Yes	2026-DouglasCo-12	No
Franktown Parker FPR-2	Dam	Yes	Yes	2026-DouglasCo-12	No
Pinery #11 Detention Pond	Dam	Yes	Yes	2026-DouglasCo-12	No
Platte Canyon	Dam	Yes	Yes	2026-DouglasCo-12	No
Spruce Mountain	Dam	Yes	Yes	2026-DouglasCo-12	No
Wauconda	Dam	Yes	Yes	2026-DouglasCo-12	No
West Creek	Dam	Yes	Yes	2026-DouglasCo-12	No

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Event	0.2% Event		
Deckers Hall	Polling Site	Yes	Yes	2026-DouglasCo-12	No
West Metro Fire Protection	Polling Site	Yes	Yes	2026-DouglasCo-12	No
Onvoy Spectrum, LLC	Radio Tower	No	Yes	2026-DouglasCo-12	No
Deckers DSCO Substation	Police Station	Yes	Yes	2026-DouglasCo-12	No
Hook Gravesite	Historic Site	Yes	Yes	2026-DouglasCo-12	No
Deckers Post Office #2	Historic Site	Yes	Yes	2026-DouglasCo-12	No
Huntsville Post Office #2	Historic Site	Yes	Yes	2026-DouglasCo-12	No
Glen Grove Post Office #2	Historic Site	No	Yes	2026-DouglasCo-12	No
Glen Grove School	Historic Site	Yes	Yes	2026-DouglasCo-12	No
Deane	Historic Site	Yes	Yes	2026-DouglasCo-12	No
Deckers	Historic Site	Yes	Yes	2026-DouglasCo-12	No
Coberly Halfway House #2	Historic Site	Yes	Yes	2026-DouglasCo-12	No
Frankstown #1	Historic Site	Yes	Yes	2026-DouglasCo-12	No
Huntsville #2	Historic Site	Yes	Yes	2026-DouglasCo-12	No
Winkler Ranch	Historic Site	Yes	Yes	2026-DouglasCo-12	No
Cronkrite	Historic Site	Yes	Yes	2026-DouglasCo-12	No
North West Creek	Historic Site	Yes	Yes	2026-DouglasCo-12	No
Russellville	Historic Site	Yes	Yes	2026-DouglasCo-12	No
Lucas Dairy / Shady Springs Ranch	Historic Site	Yes	Yes	2026-DouglasCo-12	No
Bear Canyon Agricultural District	Historic Site	Yes	Yes	2026-DouglasCo-12	No
Russellville Ranch	Historic Site	Yes	Yes	2026-DouglasCo-12	No
Strontia Springs Post Office	Historic Site	Yes	Yes	2026-DouglasCo-12	No
Littleton Fire Station	Fire Station	Yes	Yes	2026-DouglasCo-12	No
Parker Fire Station	Fire Station	No	Yes	2026-DouglasCo-12	No
Structure G-18-BC	Bridge	Yes	Yes	N/A	Yes, as per construction regulations
Structure G-17-AO	Bridge	Yes	Yes	N/A	Yes, as per construction regulations
Structure G-17-AL	Bridge	Yes	Yes	N/A	Yes, as per construction regulations
Structure G-17-AI	Bridge	Yes	Yes	N/A	Yes, as per construction regulations
Structure H-17-AJ	Bridge	Yes	Yes	N/A	Yes, as per construction regulations
Structure G-18-H	Bridge	Yes	Yes	N/A	Yes, as per construction regulations
Structure G-17-AN	Bridge	Yes	Yes	N/A	Yes, as per construction regulations

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Event	0.2% Event		
Structure G-16-E	Bridge	Yes	Yes	N/A	Yes, as per construction regulations
Structure G-17-CE	Bridge	Yes	Yes	N/A	Yes, as per construction regulations
Structure G-17-M	Bridge	No	Yes	N/A	Yes, as per construction regulations
Cottonwood South Lift Station	Potable Water Lift Station	No	Yes	2026-DouglasCo-12	No
9017516	Potable Well	Yes	Yes	2026-DouglasCo-12	No
9016984	Potable Well	Yes	Yes	2026-DouglasCo-12	No
253018	Potable Well	Yes	Yes	2026-DouglasCo-12	No
3678390	Potable Well	Yes	Yes	2026-DouglasCo-12	No
0325453A	Potable Well	Yes	Yes	2026-DouglasCo-12	No
230501	Potable Well	Yes	Yes	2026-DouglasCo-12	No
9018181	Potable Well	Yes	Yes	2026-DouglasCo-12	No
230327	Potable Well	Yes	Yes	2026-DouglasCo-12	No
3614613	Potable Well	No	Yes	2026-DouglasCo-12	No
9018189	Potable Well	Yes	Yes	2026-DouglasCo-12	No
9017648	Potable Well	Yes	Yes	2026-DouglasCo-12	No
518011	Potable Well	Yes	Yes	2026-DouglasCo-12	No
9018202	Potable Well	Yes	Yes	2026-DouglasCo-12	No
9017572	Potable Well	Yes	Yes	2026-DouglasCo-12	No
9017741	Potable Well	Yes	Yes	2026-DouglasCo-12	No
9018035	Potable Well	Yes	Yes	2026-DouglasCo-12	No
9016293	Potable Well	No	Yes	2026-DouglasCo-12	No
9019850	Potable Well	Yes	Yes	2026-DouglasCo-12	No
9016213	Potable Well	Yes	Yes	2026-DouglasCo-12	No
282021	Potable Well	Yes	Yes	2026-DouglasCo-12	No
CTL (Level 3 Communications) Englewood - ENWDCO32	Tier II Facility	Yes	Yes	2026-DouglasCo-12	No
Denver Water - Strontia Springs Reservoir Headquarters	Tier II Facility	Yes	Yes	2026-DouglasCo-12	No
MCI dba Verizon Business- PLJKCO (VZB- COPLJKCO)	Tier II Facility	No	Yes	2026-DouglasCo-12	No
Roxborough Water and Sanitation District Chemical Handling Facility	Tier II Facility	Yes	Yes	2026-DouglasCo-12	No

Source: Douglas County; CDOT; CDPHE; ESRI; HIFLD; US Energy Information Administration; FEMA

In addition to critical facilities that are exposed to flooding, the following high hazard dams are located in Douglas County:

- Strontia Springs Reservoir Rehab, located in Unincorporated Douglas County and owned by the Denver Water Board
- Chatfield Reservoir Rehab, located in Unincorporated Douglas County and owned by the Omaha District of the United States Army Corps of Engineers
- Cheesman Dam Rehab, located in Unincorporated Douglas County and owned by the Denver Water Board
- Chambers Reservoir Rehab, located in Unincorporated Douglas County, bordering the Town of Parker, and owned by the Arapahoe County Water and Wastewater Authority

2.6.4 Identified Issues

After a review of Douglas County's hazard event history, hazard rankings, hazard location, and current capabilities, the County identified the following vulnerabilities:

- The management strategies for County-owned lands categorized as forested properties include a hazardous fuels reduction component as part of a larger forest management/forest restoration strategy for protection of the property, the financial investment of tax payers, the natural resources values as well as social, recreational, and intrinsic values. Management strategies for smaller properties in hazardous subdivisions contain a hazardous fuels reduction component where appropriate. Implementation projects are guided by hazard analysis, the Douglas County CWPP and the current process for approval and implementation with Douglas County Open Space and Natural Resources. The County maintains a spreadsheet of county-owned properties that have the potential for mitigation action, or for properties that have had an initial entry, a maintenance schedule. Mitigation actions may include hand work, equipment work, County work, contractor work, and prescribed fire. This program must be carried out.
- The Debris Management Plan was updated and approved by the BOCC in early June 2022. The Debris Management Plan should be reviewed and updated.
- DCSO began development on the Emergency Operations Plan Evacuation Annex in 2012 as a response to lessons learned by Colorado Springs PD during the Waldo Canyon Fire. The evacuation plan was updated in 2019 which includes mass notification alert and warning templated messages. This plan is in the process of being reviewed at this time and updates. Part of the plan update will be to separate the Evacuation Plan and Alert and Warning Plan section to become their own standalone annexes. This planning process update also includes adopting evacuation warning and order terminology, updating policies and alerting templates to include the new terminology. Adopting and installing Hi-Lo siren tones into patrol vehicles as a mobile evacuation alerting tool. Developing and implementing Evacuation Zones into our alert and warning systems, and CAD Maps. Developing and implementing a Standard Evacuation Response Protocol
- There is an infestation of Tussock Moth in areas of unincorporated Douglas County, creating large areas of dead vegetation which provides fuel for wildfire.
- Douglas County implemented an Emergency Services Unit and Wildfire Suppression Aviation Program with the goal of improving wildfire suppression effectiveness and capability by co-housing county wildfire program managers with contract aviation assets. In 2025, BOCC approved \$650,000 for comprehensive design review and blueprint development.
- Critical facilities need to be protected to the 500-year flood level. There are several critical facilities located in the flood hazard area, including dams, polling sites, radio towers, police stations, historic sites, fire stations, potable water lift stations, potable wells, and tier II facilities, as outlined in Table 2-15.

- The Strontia Springs Reservoir is a High Hazard Dam that is located on the South Platte River. The dam is owned by the Denver Water Board. Failure of the dam could result in inundation of residential properties along Waterton Canyon Road, woodland and forested areas, and recreational areas in Unincorporated Douglas County. Although the dam was last inspected in 2024 and was noted to be in satisfactory conditions, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions. Denver Water is currently rebuilding the hydroelectric facility located at Strontia Springs Reservoir in Waterton Canyon, with the project projected to be completed in early Summer of 2026.
- The Chatfield Reservoir is a High Hazard Dam that is located on the South Platte River. The dam is owned by the Omaha District of the United States Army Corps of Engineers. Failure of the dam could result in inundation of residential and commercial properties, recreational areas, and transportation routes including major State highways such as 121 and 470, and United States Route 85 in Unincorporated Douglas County. Although the dam was last inspected in 2025 and was noted to be in satisfactory conditions, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.
- The Cheesman Dam is a High Hazard Dam that is located on the South Platte River. The dam is owned by the Denver Water Board. Failure of the dam could result in inundation of structures and properties along Wigwam and Wigwam Creek Roads, woodland and forested areas, and recreational areas in Unincorporated Douglas County. Although the dam was last inspected in 2025 and was noted to be in satisfactory conditions, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.
- The Chambers Reservoir is a High Hazard Dam that is located on the Happy Canyon Creek. The dam is owned by the Arapahoe County Water and Wastewater Authority. Failure of the dam could result in inundation of residential and commercial properties and transportation routes including State Highway 470 and South Chambers Road in the Town of Parker. Although the dam was last inspected in 2025 and was noted to be in satisfactory conditions, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions. The Arapahoe County Water and Wastewater Authority completed a project to remediate and re-grade the reservoir in 2020.
- There are approximately 24 small dams owned by the Natural Resource Conservation Service (NRCS) in the County. Most are outdated, over 60 years old, and are located on Cherry Creek. Old dams have an increased potential for failure due to being built based on older studies and building materials.
- There is an increase in erosion on Happy Canyon Creek which is negatively impacting Grandview Estates, North of Lincoln Avenue. Stream banks become eroded due to heavy rains from severe storms, degradation from flood waters and compacted snow and ice from severe winter storms. Stabilization measures, such as including gabions, riprap, drainpipes and/or related improvements, should be considered to prevent flooding and potential landslide issues.
- Undersized culverts often result in the flooding of roadways due to the inability to handle the influx of water. Debris build-up in these undersized pipes may also result in water back-flow, leading to further roadway flooding instances and impacting the integrity of the culverts. Several culverts in the County are undersized or have been damaged from instances of flooding and the debris caused by severe storms and severe winter winters.
- Drought impacts the communities and also increases the County's overall risk for wildfire occurrences. Some neighborhoods and small domestic water providers experience declines in well productivity and water quality during periods of drought.

- Drought impacts County residents' daily lives and can increase the overall risk to wildfire occurrence. Homeowners, small communities, and water districts may not have the knowledge, staff, or financial capabilities available to mitigate drought and lessen wildfire risks.
- Douglas County owns several parks and trails in the wildland urban interface, particularly on the edges of developed subdivisions. The built environment may become increasingly at risk to the wildfire hazard if wildfire fuel is not cleared.
- Coordination and homeowner requests would be much more efficient with a digital platform to schedule, track, and create/disseminate final reports (especially for home ignition zone assessments.) This would allow the County to standardize assessments across partner agencies.
- Although Douglas County has a written Public Health Plan, many municipalities within the County do not have their own plan written. Public health plans can expand healthy habits, prevent and fight pandemic and disease outbreak, improve safety, and manage chronic conditions like diabetes and mental illness. They are essential for addressing health disparities and promoting health equity within communities.

2.7 MITIGATION STRATEGY AND PRIORITIZATION

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

2.7.1 Past Mitigation Action Status

Table 2-16 indicates progress on Douglas County's mitigation strategy identified in the 2021 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

2.7.2 Additional Mitigation Efforts

In addition to the mitigation actions completed in Table 2-16, Douglas County identified the following mitigation efforts completed since the last HMP:

- Since 2013, the Citizen Disaster Preparedness Guide has been the primary OEM resource, with over 27,000 copies distributed at community events. In 2024, a refrigerator magnet was introduced to complement the guide, providing households with a quick-reference tool for essential preparedness items. This guide needs to be updated to provide the most up-to-date information for residents.
- Douglas County completed their first prescribed fire in 2025 and will be implementing more prescribed fires in the future. Douglas County uses prescribed fires as a management tool to protect and enhance resource values where appropriate and in concert with additional resource management tools that guide the management activities to meet the goals of the property in question. Prescribed fires implemented by Douglas County have been limited to areas with grass fuels. Prescribed fires in forested areas have been implemented by DFPC and USFS.

Since the adoption of the County's first HMP, Douglas County has made significant mitigation progress in the following areas:

- Wildfire mitigation

- Hazard outreach and education
- Dam repair, removal, and rehabilitation

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Table 2-16. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
Action DC1	Citizen Disaster Preparedness Guide	All natural hazards	OEM; Facilities Admin BOCC	Revise and Update the Citizen Preparedness Guide using a new format with a focus on disaster preparedness for all Douglas County Citizens. Components include Warning systems, Citizen Information, Preparing a Family Disaster Plan, Stockpile Checklist, Shelter & Recovery, Access & Functional Needs, Pet Preparedness and Evacuation, Thunderstorms & Lightning, Winter Storms & Extreme Cold, Floods, Tornadoes, Wildfires, Terrorism, Active Shooter, Public Health Emergency, Pandemic Flu, Hazardous Materials, and Helpful Resources. Printed and electronic versions available as well as an application for smartphones. Comment: Updates to guides are done annually and distributed to citizens.	1. Complete 2. The Citizen Disaster Preparedness Guide (CDPG) has served as the Office of Emergency Management's primary preparedness resource since 2013. Over 27,000 copies have been distributed to Douglas County residents through preparedness fairs and community events. In 2024, OEM introduced an additional preparedness tool to complement the CDPG: a refrigerator magnet designed as a quick-reference guide and memory aid to help households keep essential items readily available.	1. Discontinue 2. N/A 3. The County will revise and update the Citizen Preparedness Guide annually using a new format with a focus on disaster preparedness for all Douglas County Citizens. Components include Warning systems, Citizen Information, Preparing a Family Disaster Plan, Stockpile Checklist, Shelter & Recovery, Access & Functional Needs, Pet Preparedness and Evacuation, Thunderstorms & Lightning, Winter Storms & Extreme Cold, Floods, Tornadoes, Wildfires, Terrorism, Active Shooter, Public Health Emergency, Pandemic Flu, Hazardous Materials, and Helpful Resources. Printed and electronic versions available as well as an application for smartphones.
Action DC2	Performance assessments for small NRCS dams	Dam Failure, Flood	PWE PWOPs	There are about 24 small dams owned by the NRCS in the County. Most are over 60 years old and are located on Cherry Creek. This project would develop assessments of the dams to determine if they still function as intended or need	1. In Progress 2. 15 dams have been studied, 6 removed from NRCS inventory, and 5 have been rehabilitated.	1. Include in the 2026 HMP 2. Work will continue as planned, per PW criteria, and as directed by the Dam Safety Office. 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				repair or rehabilitation. Comment: 1 dam has been completed and others are being studied		
Action DC3	Flood Hazard Inventory Tool	Flood, Severe weather	PWE County GIS	Connect flood response to Inventory Tool and develop a flood response plan for the County. The Inventory Tool will connect to the County's GIS system. Comment: Gauges are linked to our GIS system: https://arcg.is/1Wu50S0 this is a webmap from AGOL	1. Completed 2. Product was taken over by the Mile High Flood District.	1. Discontinue 2. N/A 3. No further County action required.
Action DC4	Continue to implement fuels management strategies identified on Douglas County properties	Wildfire	OEM, County Wildfire Mitigation, Building Dept. Open Space and Natural Resources	The management strategies for County-Owned lands categorized as forested properties include a hazardous fuels reduction component as part of a larger forest management /forest restoration strategy for protection of the property, the financial investment of tax payers, the natural resources values as well as social, recreational, and intrinsic values. Management strategies for smaller properties in hazardous subdivisions contain a hazardous fuels reduction component where appropriate. Implementation projects are guided by hazard analysis, the Douglas County CWPP and the current process for approval and	1. In Progress 2. This remains and viable and necessary mitigation project. Wildfire mitigation treatments must be maintained by removing regrowth of treated vegetation. This work will be ongoing in perpetuity in order to maintain wildfire resilience on treated parcels.	1. Include in the 2026 HMP 2. This mitigation project continues on an annual basis. Primary entry treatments have been completed. ESU staff are now on a maintenance cycle where we retreat each parcel every 1-3 years. This work ensures maintenance of the original investment and overall intent to mitigate wildfire risk to county owned property and private property. This remains and viable and necessary mitigation project. Wildfire mitigation treatments must be maintained by removing regrowth of treated vegetation. This work will be ongoing in perpetuity in order to maintain wildfire resilience on treated parcels. 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				implementation with Douglas County Open Space and Natural Resources. The County maintains a spreadsheet of county-owned properties that have the potential for mitigation action. Mitigation actions may include hand work, equipment work, County work, contractor work, and prescribed fire. Comment: This is ongoing and the CWPP is being updated with anticipated completion in 2021		
Action DC5	Use prescribed fires to protect and enhance resource values	Wildfires	OEM, DFPC, USFS, Open Space and Natural Resources, Local fire districts	Douglas County can use prescribed fires as a management tool to protect and enhance resource values where appropriate and in concert with additional resource management tools that guide the management activities to meet the goals of the property in question. Prescribed fires implemented by Douglas County have been limited to areas with grass fuels. Prescribed fires in forested areas have been implemented by DFPC and USFS. Comment: This will continue to be a viable tool we will utilize when appropriate.	1. Ongoing 2. This remains a viable tool and will be implemented when appropriate.	1. Discontinue 2. N/A 3. A Type 2 Complexity Broadcast Prescribed Burn Plan for Spruce Meadows/Matthews Pasture was recently completed. Implementation is planned for Fall 2025 or Winter 2026. Additional units are planned for future years.
Action DC6	Debris management	All Hazards	OEM, Public Works Operations,	The Debris Management Plan will be developed beginning Q3 2015, with completion scheduled for	1. In Progress	1. Include in the 2026 HMP

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
	plan development		Facilities, Douglas County Health Dept.	Q2 2016. The Debris Management Plan is used following a large scale disaster such as flooding or a tornado. These events tend to have an extraordinary amount of debris and trash associated with them to the extent that a plan is needed for managing the waste Comment: Ongoing and plan will be updated in 2022	2. The Debris Management Plan was updated and approved by the BOCC in early June 2022. Debris Management Plan should be reviewed annually and updated every 3 – 5 years, dependent upon the release of updated guidelines from FEMA or lessons learned from actual incidents.	2. The County OEM will work to review and update the Disaster Debris Management Plan. 3. N/A
Action DC7	Evacuation plan revision and execution	All Hazards	OEM, Facilities, Red Cross, Sheriff's Office	DCSO began development on the Emergency Operations Plan Evacuation Annex in 2012 as a response to lessons learned by Colorado Springs PD during the Waldo Canyon Fire. The Evacuation Annex is partially complete and will be completed in phases over the next 3 years. Comment: plan fully complete and will be updated in 3-4 years ongoing	1. In Progress 2. Separate the Evacuation and Alert and Warning Plans to become standalone plans. Update both plans to include a more robust evacuation plan to include potential development of evacuation zones in 2026.	1. Include in the 2026 HMP 2. County OEM will separate the Evacuation and Alert and Warning Plans to become standalone plans. Then an update will be kicked off for both plans to include a more robust evacuation plan to include potential development of evacuation zones in 2026. 3. N/A
Action DC8	Citizen Disaster Preparedness Training	All Hazards	Douglas OEM	To enhance public outreach, OEM schedules a seven session Citizen Preparedness Training, utilizing the national CERT curriculum and Stop the Bleed practicum training.	1. Ongoing 2. Douglas County is fortunate to have a highly engaged community committed to preparedness. To support this, DCOEM has redesigned the CERT training into a streamlined two-session program focused on personal and family readiness. The first session introduces participants to OEM and covers essential	1. Discontinue 2. N/A 3. Douglas County OEM has redesigned its C) citizen preparedness training into a two-session disaster preparedness workshop focused on personal and family preparedness. This streamlined approach allows for more frequent offerings while equipping participants with

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
					preparedness planning, such as reunification and evacuation. The second session gives participants the opportunity to test their own family preparedness plans in a practical setting. This new format allows OEM to offer more frequent classes while ensuring the community gains the knowledge and confidence needed to be better prepared.	practical skills to strengthen community resilience.
Action DC9	Wildland Fire Preparedness Seminars – for HOAs and for the General Public	Wildfire	OEM	This seminar features an examination of lessons learned from recent wildfire disasters in other communities similar to Douglas County, evacuation readiness tips, and a discussion panel of panel of emergency management, firefighter and law enforcement subject matter experts. In addition, this workshop will provide individual, hands-on assistance – helping participants register to receive early-warning alerts via CodeRED, PulsePoint and Twitter.	1. Complete 2. This project has been held and completed in various forms several times since the last update. We are now covering these topics on more case specific situations and rolling the content into broader Citizen Preparedness Workshops.	1. Discontinue 2. N/A 3. This content is being rolled up under OEM's current Citizen Disaster Preparedness Workshops. This effort is more holistic and all-inclusive for all disasters, not just wildfire.
Action DC10	Hazmat ESRI commodity flow identification project.	Hazardous Materials	OEM, DCSO Hazmat team, County GIS team	Hazmat ESRI commodity flow identification project.	1. No progress 2. This project was never begun due to lack of resources and lack of specific specifications for the project.	1. Discontinue 2. N/A 3. Because this project has continually been delayed for lack of resources and project definition it is of a low priority and will likely not

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						have resources available in the future.
Action DC11	Wildfire Evacuation Drills	Wildfire	OEM, Sheriff's office and Fire depts.	Wildfire evacuation drills provide participants with a realistic evacuation experience that includes receiving alerts via phone, text and emails, or a knock on the door by law enforcement personnel; instruction to evacuate the area by vehicle and direction to a "evacuation point". Participants then "execute" their home and family evacuation plan and travel to the designated evacuation point where they gather together to receive evacuation preparedness information and handouts, have the opportunity to ask questions of local authorities, and make connections and network with their neighbors regarding continued community preparedness planning.	1. Ongoing 2. Wildfire evacuation drills are valuable annual efforts for community wildfire preparedness. They are not limited to the Franktown area. At least wildfire evacuation drill has been completed each year since the last HMP revision.	1. Discontinue 2. N/A 3. Wildfire evacuation drills provide participants with a realistic evacuation experience that includes receiving alerts via phone, text and emails, or a knock on the door by law enforcement personnel; instruction to evacuate the area by vehicle and direction to a "evacuation point". Participants then "execute" their home and family evacuation plan and travel to the designated evacuation point where they gather together to receive evacuation preparedness information and handouts, have the opportunity to ask questions of local authorities, and make connections and network with their neighbors regarding continued community preparedness planning.
Action DC12	Greater Larkspur Wildfire Mitigation Project	Wildfire	OEM, County Wildfire Mitigation, PP Metro, CSFS, Larkspur Fire, USFS, Open Space and	Collaborative effort between Douglas County, Colorado State Forest Service, US Forest Service and Perry Park Metro District. Goal is to reduce hazardous wildfire fuels bordering public and private lands, focusing on dead vegetation created by the	1. In Progress 2. This project is largely completed and moving into maintenance cycles. CSFS Spencer Weston has the data and financials for this update.	1. Include in the 2026 HMP 2. This project is largely completed and moving into maintenance cycles. It will be an annual ongoing collaborative spearheaded by the County OEM. 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
			Natural Resources	Tussock Moth infestation. Desired end result is more resilient landscape and private property that can withstand wildfire and give firefighters better opportunities for suppression.		
Action DC13	Douglas County Fire and Aviation Facility	Wildfire	OEM, BOCC, PWE, Fire depts	Permanent facility to house the Douglas County Emergency Services Unit and Wildfire Suppression Aviation Program. Goal is to improve wildfire suppression effectiveness and capability by co-housing county wildfire program managers with contract aviation assets. Permanent facility would improve training opportunities, situational awareness, response times and equipment longevity and safety.	1. In Progress 2. In 2025, BOCC approved \$650,000 for comprehensive design review and blueprint development.	1. Include in the 2026 HMP 2. In 2025, BOCC approved \$650,000 for comprehensive design review and blueprint development. This remains a high priority for long term viability of Douglas County's aviation program. This project will be implemented when financially viable. 3. N/A
Action DC14	Wildfire Strategy	Wildfire	OEM, County Wildfire Mitigation, Public Relations	Develop a top-down science-based wildfire strategy for agency officials that includes preparedness, risk reduction (mitigation), and personal responsibility with an emphasis on home ignition.	1. Ongoing 2. OEM and other county departments continue efforts towards this end.	1. Discontinue 2. N/A 3. OEM and other county departments will continue efforts towards the development of a science-based wildfire strategy.
Action DC15	Wildfire Action Collaborative	Wildfire	BOCC, DCSO, USFS, CSFS, County Wildfire Mitigation, OEM, FPDs, DC	Establish with partner agencies, a coordinated group, reflective of a wildfire working group to establish and commit to using consistent, accurate, science-based messaging on wildfire	1. Completed 2. This project/effort has been implemented and renamed the Douglas County Wildfire Action Collaborative. This group meets once per month and includes all	1. Discontinue 2. N/A 3. This is important work and a highly effective collaborative that will continue in perpetuity.

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
			Wildland Coordinators, Citizen Groups	preparedness and risk reduction practices in the Home Ignition Zone (HIZ). Establish science-based BMPs for native vegetation as species as it relates to wildfire. Identify opportunities and methods for thought provoking and engaging communication.	groups mentioned in the responsible party section.	
Action DC16	Wildfire Education	Wildfire	County Wildfire mitigation, CSFS	Educate through individual property and community wildfire assessment and risk reduction recommendations and assist in the design and execution of community-based wildfire mitigation projects.	1. In Progress 2. In continual progress, coordination and homeowner requests would be much more efficient with a digital platform to schedule, track, and create/disseminate final reports (especially for home ignition zone assessments.) This would also allow us to standardize assessments across partner agencies in the county.	1. Include 2. Deliver individual and community-level wildfire risk assessments, develop actionable mitigation recommendations, and support the planning and implementation of community wildfire mitigation projects. Enhance program effectiveness through coordinated outreach, community networking events, and partnerships with local fire agencies to broaden engagement and maximize mitigation outcomes. 3. N/A
Action DC17	Wildfire Reduction	Wildfire	County Wildfire mitigation	Completed two development-wide wildfire mitigation/hazardous fuels reduction projects in both a new community of high-density homes and 2 new filings for new home construction in existing communities. As these projects come through, we will continue	1. Complete 2. Through our Cost-Share program we have targeted HOA's to complete wildfire mitigation on community owned property, we have also funded community chipping events. Through the land use process, section 17 of the building code, we require new developments to complete a	1. Revise and include 2. Implement a wildfire mitigation cost-share program to increase scope and scale of community wildfire mitigation projects and home hardening projects. Use wildfire hazard maps and other fire behavior technology to help target areas of highest priority to reduce wildfire risk to life,

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				to develop these hazardous fuels reduction projects.	forest action plan prior to development.	property, and critical infrastructure. 3. Revised to be more specific
Action DC18	Happy Canyon Creek at Interstate 25 Stream Stabilization	Flood, Erosion	Douglas County – Public Works Engineering, Mile High Flood District	Happy Canyon Creek at Interstate 25 Stream Stabilization	1. Complete. 2. Ongoing vegetation management to ensure long-term success	1. Discontinue 2. N/A 3. Completed action
Action DC19	Happy Canyon Creek North of Lincoln Avenue	Flood, Erosion	Douglas County – Public Works Engineering, Mile High Flood District	Happy Canyon Creek North of Lincoln Avenue	1. In Progress 2. Stream Stabilization of Happy Canyon Creek through Grandview Estates, North of Lincoln Avenue	1. Include in 2026 HMP 2. N/A 3. N/A
Action DC20	Major Drainageway Planning Study for Cherry Creek from Reservoir to Bayou Gulch Road	Flood, Severe Weather	Mile High Flood District, Douglas County	Major Drainageway Planning Study for Cherry Creek from Reservoir to Bayou Gulch Road	1. Complete 2. N/A	1. Discontinue 2. N/A 3. Completed action.
Action DC21	Maintain Culverts	Flood, Severe Weather	DC, DC PW EN	Reduce flood hazard to public by ensuring culvert inventory is fully functional, passing design flows and capacities. Also creates the possibility of brining substandard pipes to meet contemporary criteria. Primarily achieved through trenchless rehabilitation.	1. In Progress 2. 349 culverts have been upgraded since start of program	1. Include in 2026 HMP 2. N/A 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
Action DC22	Surveil Culverts	Flood, Severe Weather	DC, DC PW EN	Inspect and video culverts throughout the county to identify hazards to the public that may include sub-design capacities (flooding), structural failures (road collapse), and related hazards resulting from a failed culvert. This routine annual program informs and prioritizes the culvert rehabilitation program.	1. In Progress 2. 6,404 of the 13,259 DC owned and maintained culverts have been inspected since start of program	1. Include in 2026 HMP 2. N/A 3. N/A
Action DC23	CWPP	All Hazards	County Wildfire mitigation, CSFS, OEM, FPD	The DC CWPP is going through the update process. The CWPP process authorized Under Title 1 of the 2003 HFRA and required in the State of Colorado under SB 09-001 is a collaborative effort to identify and implement locally based solutions for protection of life, property and critical infrastructure in the WUI. The process brings together a diverse group of stakeholders and must meet the minimum standards set forth by the State Forester.	1. Complete 2. The Douglas County CWPP was updated in 2022.	1. Discontinue 2. N/A 3. Completed in 2022.
Action DC24	Continue the Douglas County Water Alternatives Program	Wildfire	Department of Community Development; County Administration	The program assists homeowners and small domestic water providers in developing renewable water supply alternatives through the funding of feasibility studies and engineering costs. Participants in the program may also have the ability to use the support as	1. In Progress 2. Progress since 2021 has included: a. A 2021 feasibility study for Louviers resulted in \$4.3 million of ARPA funds being allocated in 2022 towards extension of a water line that can deliver renewable water	1. Include in the 2026 HMP. 2. No changes need to be made to the Action. 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				leverage for additional grant funding. Diversification of water supplies by entities that provide water to existing developments can improve their capability to withstand drought conditions.	to the Louviers Water and San Dist. b. In 2023, a study of the feasibility of connecting to Caste Rock Water was completed for Keene Ranch, Castle Mesa, and Castle Oaks subdivisions. c. In 2023, a study of the feasibility of connecting to Parker WSD or Castle Rock Water was completed for the Happy Canyon subdivision. d. In 2024 a study of the feasibility of connecting to the Town of Larkspur's water system was completed for three properties south of the Town. e. Since the inception of the program, the following communities have made connections to renewable water supplies: - Plum Valley Heights - Chatfield East - Chatfield Acres - Titan Industrial Park - Ravenna	
Action DC25	Continue providing technical support for water resource planning	All Hazards	Department of Community Development; County Administration	Douglas County staff offers technical support to homeowners, small communities, and water districts and aids those entities with limited resources in addressing	1. In Progress 2. Progress since 2021 has included: a. In 2022, \$2.65 million of ARPA allocation was committed to the Sedalia	1. Include in the 2026 HMP. 2. N/A 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				water resources planning needs. Support could include fostering relationships, providing research assistance, or coordinating public outreach efforts. Diversification of water supplies by entities that provide water to existing developments can improve their capability to withstand drought conditions.	Water and Sanitation District (SWSD) to partially fund replacement of aging water infrastructure and a future interconnect with regional water providers. b. In 2022, \$1.96 million of ARPA allocation was committed to the Louviers Water and Sanitation District (LWSD) to be put towards improvements to its existing infrastructure to remove radium from their water supply. Since completion of the radium removal project in 2025, multiple water tests show that the radium levels are below the threshold for public health issues. c. In 2023, Douglas County entered into agreements with Castle Rock and Dominion WSD to fund water and wastewater improvements on the Highway 85 corridor. d. In 2024 and 2025, Castle Rock Water and Dominion WSD have continued to execute their water and waste water projects with County support.	
Action DC26	Develop fuels management strategies for	Wildfire	Parks and Recreation Department;	Douglas County owns several parks and trails in the wildland urban interface, particularly on	1. In progress 2. Mitigation efforts continue as Standard Operating Procedure.	1. Include 2. Douglas County's efforts to incorporate fuels management into

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
	County park and trail properties		Douglas County Wildfire Mitigation	the edges of developed subdivisions. Fuel management strategies could include fuel reduction or development of fire breaks	These efforts include the following: maintaining proper trail width to provide recreation and fire break capabilities, fuel reduction through vegetation removal, and noxious weed management.	SOP are an effective tool for wildfire mitigation and will continue in the future. 3. N/A

2.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Douglas County participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 “Selecting Appropriate Mitigation Measures for Floodprone Structures” (March 2007)
- FEMA “Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards” (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Douglas County would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in County priorities.

Table 2-17 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 12 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 2-18 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.

Table 2-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure	X	X			X				X	X
Drought	X		X	X	X		X	X		X
Earthquake	X									X
Flood	X	X			X	X		X	X	X
Geologic Hazards	X	X				X		X		X
Hazardous Materials	X									X
Pandemic	X				X					
Severe Weather	X	X							X	X
Wildfire	X	X	X	X	X		X	X		X

Local Plans and Regulations (LPR)—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

Structure and Infrastructure Project (SIP)—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

Natural Systems Protection (NSP)—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

Education and Awareness Programs (EAP)—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

Preventative Measures (PR)—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

Property Protection (PP)—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

Public Information (PI)—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

Natural Resource Protection (NR)—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

Structural Flood Control Projects (SP)—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

Emergency Services (ES)—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities

Table 2-18. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria													High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Administrative	Hazards of Concern	Timeline	Community Lifelines	Other Local Objectives	Total	
2026-DouglasCo-01	Citizen Disaster Preparedness Guide	1	1	1	1	1	1	0	1	1	1	1	1	11	High
2026-DouglasCo-02	Debris Management Plan	1	1	1	1	1	1	0	1	1	1	1	1	11	High
2026-DouglasCo-03	Evacuation Plan	1	0	1	1	1	1	0	1	1	1	1	1	10	High
2026-DouglasCo-04	Greater Larkspur Wildfire Mitigation Project	1	1	1	1	1	1	1	1	1	1	1	1	12	High
2026-DouglasCo-05	Douglas County Fire and Aviation Facility	1	1	1	1	1	1	0	1	1	1	1	1	11	High
2026-DouglasCo-06	Critical Facility Protection	1	1	1	1	1	1	0	1	1	1	1	0	10	High
2026-DouglasCo-07	Strontia Springs Reservoir Rehab	1	1	1	1	0	0	1	1	0	1	1	0	8	Medium
2026-DouglasCo-08	Chatfield Reservoir Rehab	1	1	1	1	0	0	1	1	0	1	1	0	8	Medium
2026-DouglasCo-09	Cheesman Dam Rehab	1	1	1	1	0	0	1	1	0	1	1	0	8	Medium
2026-DouglasCo-10	Chambers Reservoir Rehab	1	1	1	1	0	0	1	1	0	1	1	0	8	Medium
2026-DouglasCo-11	Performance Assessment for Small NRCS Dams	1	1	1	1	1	1	0	0	1	1	1	0	11	High
2026-DouglasCo-12	Happy Canyon Creek North of Lincoln Avenue	1	1	1	1	1	0	1	0	1	1	1	0	11	High
2026-DouglasCo-13	Undersized Culverts	1	1	1	1	1	1	0	1	1	1	1	0	12	High
2026-DouglasCo-14	Douglas County Water Alternatives Program	1	0	1	1	1	1	0	1	1	1	1	1	12	High
2026-DouglasCo-15	Technical Support for Water Resource Planning	1	0	1	1	1	1	0	1	1	1	1	1	12	High

Project Number	Project Name	Scores for Evaluation Criteria													High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Administrative	Hazards of Concern	Timeline	Community Lifelines	Other Local Objectives	Total	
2026-DouglasCo-16	Develop Fuels Management Strategies for County Park and Trail Properties	1	1	1	1	1	1	1	0	1	1	1	0	12	High
2026-DouglasCo-17	Wildfire Education	1	1	1	1	1	1	0	0	0	1	1	1	11	High
2026-DouglasCo-18	Municipal Public Health Plans	1	0	1	1	1	0	0	1	0	0	1	0	6	Medium

Note: Volume I, Section 19 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-12).

Action 2026-DouglasCo-01. Citizen Disaster Preparedness Guide

Lead Agency:	OEM								
Supporting Agencies:	Building Dept. Open Space and Natural Resources								
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☒ Flood ☒ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☒ Wildfire								
Description of the Problem:	The management strategies for County-owned lands categorized as forested properties include a hazardous fuels reduction component as part of a larger forest management/forest restoration strategy for protection of the property, the financial investment of tax payers, the natural resources values as well as social, recreational, and intrinsic values. Management strategies for smaller properties in hazardous subdivisions contain a hazardous fuels reduction component where appropriate. Implementation projects are guided by hazard analysis, the Douglas County CWPP and the current process for approval and implementation with Douglas County Open Space and Natural Resources. The County maintains a spreadsheet of county-owned properties that have the potential for mitigation action. Mitigation actions may include hand work, equipment work, County work, contractor work, and prescribed fire.								
Description of the Solution:	Primary entry treatments have been completed. Additional treatments work to mitigate wildfire risk to county owned property and private property. Wildfire mitigation treatments must be performed by removing regrowth of treated vegetation. This work will enhance wildfire resilience on treated parcels.								
Estimated Cost:	Low (staff time)								
Potential Funding Sources:	General Funds								
Implementation Timeline:	Ongoing capability								
Goals Met:	4								
Benefits:	The removal of fire fuel can drastically reduce the risk of wildfires. Removing the fire fuel in risk areas can further protect persons and property from potential impacts.								
Impact on Future Development:	Proactive land management sets a precedent for integrating wildfire mitigation into planning, encouraging future development to consider defensible space and fire-adapted design.								
Impact on Critical Facilities/Lifelines:	Maintaining treated areas reduces the likelihood of wildfire damage to critical infrastructure such as power lines, water systems, and emergency access routes.								
Impact on Capabilities:	The program enhances the County's operational capabilities by maintaining a structured, data-informed approach to land management and wildfire mitigation.								
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☒ Education and Awareness Programs (EAP)								
CRS Category:	☐ Preventative Measures (PR) ☒ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)								
Priority:	☒ High ☐ Medium ☐ Low								
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Rely on state wildfire mitigation</td><td>Not always accessible or available annually.</td></tr> <tr> <td>Rely on federal wildfire mitigation</td><td>Not accessible for the County.</td></tr> </tbody> </table>			No Action	Current problem exists	Rely on state wildfire mitigation	Not always accessible or available annually.	Rely on federal wildfire mitigation	Not accessible for the County.
No Action	Current problem exists								
Rely on state wildfire mitigation	Not always accessible or available annually.								
Rely on federal wildfire mitigation	Not accessible for the County.								

Action 2026-DouglasCo-02. Debris Management Plan

Lead Agency:	OEM		
Supporting Agencies:	Public Works Operations, Facilities, Douglas County Health Dept.		
Hazard(s) of Concern:	☒ Dam Failure ☒ Drought ☒ Earthquake ☒ Flood ☒ Geologic Hazards	☒ Hazardous Materials ☐ Pandemic ☒ Severe Weather ☒ Wildfire	
Description of the Problem:	The Debris Management Plan was updated and approved by the BOCC in early June 2022. The Debris Management Plan should be reviewed updated.		
Description of the Solution:	The County OEM will work to review and update the Disaster Debris Management Plan. This plan works to establish procedures and guidelines for managing disaster debris in a coordinated, environmentally responsible, and cost-effective manner. The plan will identify responsibilities for execution of the plan. The plan will align with permitted temporary collection areas.		
Estimated Cost:	Low (staff time)		
Potential Funding Sources:	General funds		
Implementation Timeline:	Ongoing updates; Short-term (1-2 years)		
Goals Met:	2, 4, 5, 6		
Benefits:	The action will result in increased quicker and more efficient cleanup after disaster events.		
Impact on Future Development:	Incorporating updated debris management practices supports resilient development by ensuring that future growth areas are considered in post-disaster cleanup logistics.		
Impact on Critical Facilities/Lifelines:	Timely debris removal helps maintain access to and functionality of critical facilities and lifelines, such as hospitals, emergency routes, and utilities.		
Impact on Capabilities:	Regular updates to the plan enhance the County's operational readiness and coordination capabilities during disaster recovery efforts.		
Mitigation Category:	☒ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)	
CRS Category:	☒ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)	
Priority:	☒ High	☐ Medium	☐ Low
Alternatives:	No Action Utilize old Disaster Debris Plan Rely on federal resources	Current problem exists Will be outdated and not have updated information for implementation. Not always locally accessible or local pertinent information.	

Action 2026-DouglasCo-03. Evacuation Plan

Lead Agency:	OEM		
Supporting Agencies:	Sheriff's Office, Facilities, Red Cross		
Hazard(s) of Concern:	☒ Dam Failure ☒ Drought ☒ Earthquake ☒ Flood ☒ Geologic Hazards	☒ Hazardous Materials ☐ Pandemic ☒ Severe Weather ☒ Wildfire	
Description of the Problem:	DCSO began development on the Emergency Operations Plan Evacuation Annex in 2012 as a response to lessons learned by Colorado Springs PD during the Waldo Canyon Fire. The evacuation plan was updated in 2019 which includes mass notification alert and warning templated messages. This plan is in the process of being reviewed at this time and updates. Part of the plan update will be to separate the Evacuation Plan and Alert and Warning Plan section to become their own standalone annexes.		
Description of the Solution:	County OEM will separate the Evacuation and Alert and Warning Plans to become standalone plans. Then an update will be kicked off for both plans to include a more robust evacuation plan to include potential development of evacuation zones in 2026. This planning process update includes adopting evacuation warning and order terminology, updating policies and alerting templates to include the new terminology. Adopting and installing Hi-Lo siren tones into patrol vehicles as a mobile evacuation alerting tool. Developing and implementing Evacuation Zones into our alert and warning systems, and CAD Maps. Developing and implementing a Standard Evacuation Response Protocol		
Estimated Cost:	Low (staff time)		
Potential Funding Sources:	General funds		
Implementation Timeline:	Short-term (1-2 years). Updates are an ongoing capability.		
Goals Met:	4, 5, 6		
Benefits:	Evaluating evacuation routes with surrounding jurisdictions ensures continuity during implementation. Furthermore, identifying routes which are not impacted, or have limited impact, to hazards, such as flood, prevent additional loss or damages.		
Impact on Future Development:	The development of evacuation zones and improved alert systems will guide safer land use planning and ensure that future developments are integrated into emergency response frameworks.		
Impact on Critical Facilities/Lifelines:	Enhanced evacuation and alert protocols help ensure continuity of operations and timely protection of critical facilities and lifelines during emergencies.		
Impact on Capabilities:	Separating and updating the plans strengthens the County's emergency management capabilities by allowing for more detailed, scenario-specific planning and coordination.		
Mitigation Category:	☒ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)	
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)	
Priority:	☒ High	☐ Medium	☐ Low
Alternatives:	No Action Utilize 2012 plan Rely on federal evacuation procedures	Current problem exists Outdated and will not be accurate anymore. Not always deployed for every emergency.	

Action 2026-DouglasCo-04. Greater Larkspur Wildfire Mitigation Project

Lead Agency:	OEM		
Supporting Agencies:	County Wildfire Mitigation, PP Metro, CSFS, Larkspur Fire, USFS, Open Space and Natural Resources		
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☐ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☒ Wildfire		
Description of the Problem:	There is an infestation of Tussock Moth in unincorporated Douglas County, creating large areas of dead vegetation which provides fuel for wildfire.		
Description of the Solution:	Reducing hazardous wildfire fuels bordering public and private lands, focusing on dead vegetation, will create a more resilient landscape and ensure private property can withstand wildfire, giving firefighters better opportunities for suppression. This project is largely completed and moving into maintenance cycles. Once completed, it will be an annual ongoing collaborative spearheaded by the County OEM.		
Estimated Cost:	High (approximately \$2 million)		
Potential Funding Sources:	CSFS Grant, General Fund		
Implementation Timeline:	Ongoing annually		
Goals Met:	4, 5, 6		
Benefits:	The removal of fire fuel can drastically reduce the risk of wildfires. Removing the fire fuel in risk areas can further protect persons and property from potential impacts.		
Impact on Future Development:	This project supports safer future development by reducing wildfire risk in the wildland-urban interface and encouraging fire-adapted community planning. The reduction of fuels within the shaded fuel break creates a safer, more defensible environment for emergency responders, providing a reliable location to slow, contain, and ultimately suppress wildfire spread		
Impact on Critical Facilities/Lifelines:	Fuel reduction near key areas helps protect critical infrastructure and lifelines, such as roads, utilities, and emergency service routes, from wildfire damage.		
Impact on Capabilities:	The ongoing collaborative approach strengthens interagency coordination and builds long-term operational capacity for wildfire mitigation and land stewardship.		
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP) ☒ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)		
CRS Category:	☒ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI) ☒ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)		
Priority:	☒ High	☐ Medium	☐ Low
Alternatives:	No Action	Current problem exists	
	Conduct bi-annually	May lose communication and loss of planning efforts.	
	Rely on state resources	Not always publicly accessible on an annual basis.	

Action 2026-DouglasCo-05. Douglas County Fire and Aviation Facility

Lead Agency:	OEM		
Supporting Agencies:	BOCC, PWE, Fire depts, Facilities		
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☐ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☒ Wildfire		
Description of the Problem:	Douglas County implemented an Emergency Services Unit and Wildfire Suppression Aviation Program with the goal of improving wildfire suppression effectiveness and capability by co-housing county wildfire program managers with contract aviation assets. In 2025, BOCC approved \$650,000 for comprehensive design review and blueprint development		
Description of the Solution:	In 2025, BOCC approved \$650,000 for comprehensive design review and blueprint development. This remains a high priority for long-term viability of Douglas County's aviation program. This project will be implemented when financially viable.		
Estimated Cost:	High (approximately \$5 million)		
Potential Funding Sources:	General fund		
Implementation Timeline:	Short-term (1-2 years)		
Goals Met:	1, 4		
Benefits:	The appropriate storage and placement of materials and assets is crucial to the program's longevity. The Wildfire Suppression Aviation Program has been increasingly more active as wildfires continue to impact the County each year.		
Impact on Future Development:	A dedicated facility enhances regional fire suppression infrastructure, supporting safer development in wildfire-prone areas and potentially influencing zoning and building standards.		
Impact on Critical Facilities/Lifelines:	Faster and more effective wildfire response helps safeguard critical infrastructure such as power lines, water systems, and transportation corridors from fire damage.		
Impact on Capabilities:	The facility will significantly expand the County's operational capabilities by improving coordination, training, equipment maintenance, and rapid deployment of aviation assets.		
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☒ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)		
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)		
Priority:	☒ High ☐ Medium ☐ Low		
Alternatives:	No Action		Current problem exists
	Utilize existing structure		There is not one feasible or accessible
	Utilize emergency shelter building		Not possible as it would be loss of a critical structure for emergencies.

Action 2026-DouglasCo-06. Critical Facility Protection

Lead Agency:	Facilities								
Supporting Agencies:	OEM								
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☒ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☐ Wildfire								
Description of the Problem:	Critical facilities need to be protected to the 500-year flood level. There are several critical facilities located in the flood hazard area, including dams, polling sites, radio towers, police stations, historic sites, fire stations, potable water lift stations, potable wells, and tier II facilities, as outlined in Table 2-15.								
Description of the Solution:	The County will notify the critical facility owners and managers of the facility's location in the flood hazard area. The County will encourage each facility to conduct a feasibility assessment to determine what additional floodproofing measures are needed at the critical facilities to protect them to the 500-year flood level. Options include: - Elevation of facility - Floodproofing of facility - Mobile flood barriers Once the most cost-effective option is identified, the facility owner or manager will carry out the option.								
Estimated Cost:	Medium								
Potential Funding Sources:	FEMA HMA, USDA Community Facilities Grant Program, County Budget								
Implementation Timeline:	Within 5 Years								
Goals Met:	1, 3, 5								
Benefits:	Ensures continuity of operations of several critical facilities in the County.								
Impact on Future Development:	The risk of significant damage occurring to the structure will be reduced, which will allow critical operations to be maintained or only briefly interrupted in severe events. This provides continued support to both current and future development in the service area.								
Impact on Critical Facilities/Lifelines:	This action will protect critical facilities, maintaining the critical services that it provides.								
Impact on Capabilities:	This action improves continuity of operations during a flood event, allows for a more rapid return to pre-disaster capabilities after a flood event, and faster deployment of post disaster capabilities.								
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☒ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)								
CRS Category:	☐ Preventative Measures (PR) ☒ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)								
Priority:	☒ High ☐ Medium ☐ Low								
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Relocate facility</td><td>Relocation is expensive and results in loss or delay of critical services in the immediate area</td></tr> <tr> <td>Establish plans to enter into MOU with neighboring critical facilities to provide service during flood events</td><td>Reduction in response times and delay of critical services in the immediate area.</td></tr> </tbody> </table>			No Action	Current problem exists	Relocate facility	Relocation is expensive and results in loss or delay of critical services in the immediate area	Establish plans to enter into MOU with neighboring critical facilities to provide service during flood events	Reduction in response times and delay of critical services in the immediate area.
No Action	Current problem exists								
Relocate facility	Relocation is expensive and results in loss or delay of critical services in the immediate area								
Establish plans to enter into MOU with neighboring critical facilities to provide service during flood events	Reduction in response times and delay of critical services in the immediate area.								

Action 2026-DouglasCo-07. Strontia Springs Reservoir Rehab

Lead Agency:	Denver Water Board								
Supporting Agencies:	County Engineer, County OEM, Colorado DHSEM								
Hazard(s) of Concern:	☒ Dam Failure ☐ Drought ☐ Earthquake ☒ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☐ Wildfire								
Description of the Problem:	The Strontia Springs Reservoir is a High Hazard Dam that is located on the South Platte River. The dam is owned by the Denver Water Board. Failure of the dam could result in inundation of residential properties along Waterton Canyon Road, woodland and forested areas, and recreational areas in Unincorporated Douglas County. Although the dam was last inspected in 2024 and was noted to be in satisfactory conditions, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions. Denver Water is currently rebuilding the hydroelectric facility located at Strontia Springs Reservoir in Waterton Canyon, with the project projected to be completed in early Summer of 2026.								
Description of the Solution:	The County Engineer will work with the Denver Water Board to complete an engineering study of the Strontia Springs Reservoir. The County will also request information and input from its Public Works Operations Division regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Denver Water Board will pursue funding support, permit approval, and implement the cost-effective measures. Douglas County will support initiatives as applicable.								
Estimated Cost:	High								
Potential Funding Sources:	FEMA HMA, HHPD, USDA Watershed Rehabilitation Program								
Implementation Timeline:	Within 5 years								
Goals Met:	4, 5, 6, 7, 8								
Benefits:	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.								
Impact on Future Development:	Future development located in or near the dam inundation area will be further protected from a dam failure event.								
Impact on Critical Facilities/Lifelines:	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.								
Impact on Capabilities:	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.								
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☒ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)								
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)								
Priority:	☐ High ☒ Medium ☐ Low								
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Decommission Dam</td><td>High cost, flood risk for nearby infrastructure increased, loss an environmental, flood control, and stormwater management resource.</td></tr> <tr> <td>Elevate nearby structures</td><td>Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions</td></tr> </tbody> </table>			No Action	Current problem exists	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss an environmental, flood control, and stormwater management resource.	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions
No Action	Current problem exists								
Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss an environmental, flood control, and stormwater management resource.								
Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions								

Action 2026-DouglasCo-08. Chatfield Reservoir Rehab

Lead Agency:	Omaha District of the United States Army Corps of Engineers								
Supporting Agencies:	County Engineer, County OEM, Colorado DHSEM								
Hazard(s) of Concern:	☒ Dam Failure ☐ Drought ☐ Earthquake ☒ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☐ Wildfire								
Description of the Problem:	The Chatfield Reservoir is a High Hazard Dam that is located on the South Platte River. The dam is owned by the Omaha District of the United States Army Corps of Engineers. Failure of the dam could result in inundation of residential and commercial properties, recreational areas, and transportation routes including major State highways such as 121 and 470, and United States Route 85 in Unincorporated Douglas County. Although the dam was last inspected in 2025 and was noted to be in satisfactory conditions, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.								
Description of the Solution:	The County Engineer will work with the Omaha District of the United States Army Corps of Engineers to complete an engineering study of the Chatfield Reservoir. The County will also request information and input from its Public Works Operations Division regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Omaha District of the United States Army Corps of Engineers will pursue funding support, permit approval, and implement the cost-effective measures. Douglas County will support initiatives as applicable.								
Estimated Cost:	High								
Potential Funding Sources:	FEMA HMA, HHPD, USDA Watershed Rehabilitation Program								
Implementation Timeline:	Within 5 years								
Goals Met:	4, 5, 6, 7, 8								
Benefits:	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.								
Impact on Future Development:	Future development located in or near the dam inundation area will be further protected from a dam failure event.								
Impact on Critical Facilities/Lifelines:	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.								
Impact on Capabilities:	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.								
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☒ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)								
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)								
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No Action	Current problem exists								
Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss an environmental, flood control, and stormwater management resource.								
Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions								

Action 2026-DouglasCo-09. Cheesman Dam Rehab

Lead Agency:	Denver Water Board								
Supporting Agencies:	County Engineer, County OEM, Colorado DHSEM								
Hazard(s) of Concern:	☒ Dam Failure ☐ Drought ☐ Earthquake ☒ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☐ Wildfire								
Description of the Problem:	The Cheesman Dam is a High Hazard Dam that is located on the South Platte River. The dam is owned by the Denver Water Board. Failure of the dam could result in inundation of structures and properties along Wigwam and Wigwam Creek Roads, woodland and forested areas, and recreational areas in Unincorporated Douglas County. Although the dam was last inspected in 2025 and was noted to be in satisfactory conditions, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.								
Description of the Solution:	The County Engineer will work with the Denver Water Board to complete an engineering study of the Cheesman Dam. The County will also request information and input from its Public Works Operations Division regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Denver Water Board will pursue funding support, permit approval, and implement the cost-effective measures. Douglas County will support initiatives as applicable.								
Estimated Cost:	High								
Potential Funding Sources:	FEMA HMA, HHPD, USDA Watershed Rehabilitation Program								
Implementation Timeline:	Within 5 years								
Goals Met:	4, 5, 6, 7, 8								
Benefits:	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.								
Impact on Future Development:	Future development located in or near the dam inundation area will be further protected from a dam failure event.								
Impact on Critical Facilities/Lifelines:	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.								
Impact on Capabilities:	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.								
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☒ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)								
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)								
Priority:	☐ High ☒ Medium ☐ Low								
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Decommission Dam</td><td>High cost, flood risk for nearby infrastructure increased, loss an environmental, flood control, and stormwater management resource.</td></tr> <tr> <td>Elevate nearby structures</td><td>Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions</td></tr> </tbody> </table>			No Action	Current problem exists	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss an environmental, flood control, and stormwater management resource.	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions
No Action	Current problem exists								
Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss an environmental, flood control, and stormwater management resource.								
Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions								

Action 2026-DouglasCo-10. Chambers Reservoir Rehab

Lead Agency:	Arapahoe County Water and Wastewater Authority								
Supporting Agencies:	County Engineer, County OEM, Colorado DHSEM								
Hazard(s) of Concern:	☒ Dam Failure ☐ Drought ☐ Earthquake ☒ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☐ Wildfire								
Description of the Problem:	The Chambers Reservoir is a High Hazard Dam that is located on the Happy Canyon Creek. The dam is owned by the Arapahoe County Water and Wastewater Authority. Failure of the dam could result in inundation of residential and commercial properties and transportation routes including State Highway 470 and South Chambers Road in the Town of Parker. Although the dam was last inspected in 2025 and was noted to be in satisfactory conditions, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions. The Arapahoe County Water and Wastewater Authority completed a project to remediate and re-grade the reservoir in 2020.								
Description of the Solution:	The County Engineer will work with the Arapahoe County Water and Wastewater Authority to complete an engineering study of the Chambers Reservoir. The County will also request information and input from its Public Works Operations Division regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Arapahoe County Water and Wastewater Authority will pursue funding support, permit approval, and implement the cost-effective measures. Douglas County will support initiatives as applicable.								
Estimated Cost:	High								
Potential Funding Sources:	FEMA HMA, HHPD, USDA Watershed Rehabilitation Program								
Implementation Timeline:	Within 5 years								
Goals Met:	4, 5, 6, 7, 8								
Benefits:	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.								
Impact on Future Development:	Future development located in or near the dam inundation area will be further protected from a dam failure event.								
Impact on Critical Facilities/Lifelines:	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.								
Impact on Capabilities:	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.								
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☒ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)								
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)								
Priority:	☐ High ☒ Medium ☐ Low								
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Decommission Dam</td><td>High cost, flood risk for nearby infrastructure increased, loss an environmental, flood control, and stormwater management resource.</td></tr> <tr> <td>Elevate nearby structures</td><td>Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions</td></tr> </tbody> </table>			No Action	Current problem exists	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss an environmental, flood control, and stormwater management resource.	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions
No Action	Current problem exists								
Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss an environmental, flood control, and stormwater management resource.								
Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions								

Action 2026-DouglasCo-11. Performance Assessment for Small NRCS Dams

Lead Agency:	Public Works Department – Public Works Engineering and Public Works Operations								
Supporting Agencies:	NRCS Dam Safety Office								
Hazard(s) of Concern:	☒ Dam Failure ☐ Drought ☐ Earthquake ☒ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☐ Wildfire								
Description of the Problem:	There are approximately 24 small dams owned by the Natural Resource Conservation Service (NRCS) in the County. Most are outdated, over 60 years old, and are located on Cherry Creek. Old dams have an increased potential for failure due to being built based on older studies and building materials.								
Description of the Solution:	The County Public Works Department will work with the NRCS Dam Safety Office to develop assessments of these identified dams to determine if they still function as intended or need repair/rehabilitation. To date, 15 NRCS dams have been studied, six have been removed from the NRCS inventory, and five have been rehabilitated. Work will continue as planned, per Public Works Department criteria, and as directed by the NRCS Dam Safety Office.								
Estimated Cost:	Low								
Potential Funding Sources:	General funds, staff time								
Implementation Timeline:	Short (1-2 years); ongoing maintenance and evaluation								
Goals Met:	4, 5, 6, 8								
Benefits:	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.								
Impact on Future Development:	Assessing and rehabilitating NRCS dams ensures safe water storage and flood control, reducing risks that could hinder future development and supporting long-term community resilience.								
Impact on Critical Facilities/Lifelines:	Maintaining or removing substandard dams protects downstream infrastructure, transportation routes, and water systems, safeguarding essential services and public safety during extreme weather events.								
Impact on Capabilities:	Collaboration with the NRCS Dam Safety Office and systematic assessments enhance the County's technical expertise and capacity to manage dam safety proactively, improving emergency preparedness and resource planning.								
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☒ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)								
CRS Category:	☒ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☒ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)								
Priority:	☒ High	☐ Medium	☐ Low						
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Remove the NRCS dams</td><td>Loss of critical infrastructure, flooding will worsen.</td></tr> <tr> <td>Relocate NRCS dams</td><td>Not an option, costly, flooding in these areas will worsen.</td></tr> </tbody> </table>			No Action	Current problem exists	Remove the NRCS dams	Loss of critical infrastructure, flooding will worsen.	Relocate NRCS dams	Not an option, costly, flooding in these areas will worsen.
No Action	Current problem exists								
Remove the NRCS dams	Loss of critical infrastructure, flooding will worsen.								
Relocate NRCS dams	Not an option, costly, flooding in these areas will worsen.								

Action 2026-DouglasCo-12. Happy Canyon Creek North of Lincoln Avenue

Lead Agency:	Public Works Engineering and Mile High Flood District								
Supporting Agencies:	-								
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☒ Flood ☒ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☐ Wildfire								
Description of the Problem:	There is an increase erosion on Happy Canyon Creek which is negatively impacting Grandview Estates, North of Lincoln Avenue. Stream banks become eroded due to heavy rains from severe storms, degradation from flood waters and compacted snow and ice from severe winter storms. Stabilization measures, such as including gabions, riprap, drainpipes and/or related improvements, should be considered to prevent flooding and potential landslide issues.								
Description of the Solution:	The County Public Works Department will work with the Mile High Flood District to conduct a stream stabilization project of Happy Canyon Creek. First a feasibility study will be conducted to guide the most feasible and effective action to take to stabilize the creek. Once the most feasible action is identified, the Public Works Department and Mile High Flood District will start implementation to stabilize the bank of Happy Canon Creek.								
Estimated Cost:	High								
Potential Funding Sources:	FEMA HMA, County Budget								
Implementation Timeline:	Short (1-2 years)								
Goals Met:	2, 4								
Benefits:	Overall flooding will be reduced, which will result in less frequency of road closures and reduced damage to properties.								
Impact on Future Development:	Stabilizing Happy Canyon Creek reduces erosion and flood risks, creating safer conditions for future development and protecting property values in adjacent areas.								
Impact on Critical Facilities/Lifelines:	Stream stabilization safeguards transportation routes, utilities, and other critical infrastructure near the creek, ensuring continuity of essential services during severe weather events.								
Impact on Capabilities:	Partnering with the Mile High Flood District and conducting feasibility studies enhances the County's technical capacity and collaborative approach to managing flood hazards effectively.								
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☒ Structure and Infrastructure Project (SIP) ☒ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)								
CRS Category:	☐ Preventative Measures (PR) ☒ Property Protection (PP) ☐ Public Information (PI) ☒ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)								
Priority:	☒ High ☐ Medium ☐ Low								
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Remove Happy Canyon Creek</td><td>Not an option, habitat degradation, increased flooding in area.</td></tr> <tr> <td>Acquire all properties which flood</td><td>Cost prohibitive</td></tr> </tbody> </table>			No Action	Current problem exists	Remove Happy Canyon Creek	Not an option, habitat degradation, increased flooding in area.	Acquire all properties which flood	Cost prohibitive
No Action	Current problem exists								
Remove Happy Canyon Creek	Not an option, habitat degradation, increased flooding in area.								
Acquire all properties which flood	Cost prohibitive								

Action 2026-DouglasCo-13. Undersized Culverts

Lead Agency:	Public Works Engineering						
Supporting Agencies:	-						
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☒ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☒ Severe Weather ☐ Wildfire						
Description of the Problem:	Undersized culverts often result in the flooding of roadways due to the inability to handle the influx of water. Debris build-up in these undersized pipes may also result in water back-flow, leading to further roadway flooding instances and impacting the integrity of the culverts. Several culverts in the County are undersized or have been damaged from instances of flooding and the debris caused by severe storms and severe winter winters						
Description of the Solution:	The County Public Works Department will work to reduce flood hazards to the public by ensuring culvert inventory is fully functional, passing current design flows and capacities. The Public Works Department will also conduct a preliminary review of bringing substandard pipes to meet contemporary criteria. This will be achieved primarily through the trenchless rehabilitation program. To date, a total of 349 culverts within the County have been upgraded since start of program. The County Public Works Department Engineering Division will inspect and video County culverts to identify hazards impacting flood control measures. Examples include sub-design capacities (flooding), structural failures (road collapse), and related hazards resulting from a failed culvert systems. This program informs and prioritizes the culvert rehabilitation program. To date, a total of 6,404 of the 13,259 County owned and maintained culverts have been inspected since start of program.						
Estimated Cost:	Low						
Potential Funding Sources:	FEMA HMA, County Budget						
Implementation Timeline:	Ongoing maintenance and evaluation						
Goals Met:	4, 7						
Benefits:	Overall flooding will be reduced, which will result in less frequency of road closures and reduced damage occurring to culverts and roadways during severe events. Businesses are likely to remain in place if they are able to remain open, or re-open sooner following a flood.						
Impact on Future Development:	Upgrading culverts to meet current design standards reduces flood risk and supports safe, sustainable development by ensuring infrastructure can handle future growth and changing climate conditions. Culvert inspections and hazard identification support safe and sustainable future development by reducing flood risks and preventing infrastructure failures that could disrupt growth.						
Impact on Critical Facilities/Lifelines:	Maintaining fully functional culvert systems protects roads and transportation networks, key lifelines for emergency response and daily operations, by preventing failures that could disrupt access and services.						
Impact on Capabilities:	Implementing a trenchless rehabilitation program and conducting preliminary reviews enhances the County's ability to manage stormwater infrastructure efficiently, improving resilience and operational readiness. Standardized inspection and video documentation enhances the County's ability to proactively manage stormwater infrastructure, improving planning, maintenance efficiency, and resilience against flooding hazards.						
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☒ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)						
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☒ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)						
Priority:	☒ High ☐ Medium ☐ Low						
Alternatives:	<table border="1"> <tr> <td>No Action</td><td>Current problem exists</td></tr> <tr> <td>Remove all outdated culverts within the County</td><td>Not an option, problem still persists.</td></tr> </table>			No Action	Current problem exists	Remove all outdated culverts within the County	Not an option, problem still persists.
No Action	Current problem exists						
Remove all outdated culverts within the County	Not an option, problem still persists.						

	Relocate culverts within the County	May worsen flooding in certain areas, costly to relocate.

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Action 2026-DouglasCo-14. Douglas County Water Alternatives Program

Lead Agency:	Department of Community Development, Community and Resource Services Division	
Supporting Agencies:	County Administration	
Hazard(s) of Concern:	☐ Dam Failure ☒ Drought ☐ Earthquake ☐ Flood ☐ Geologic Hazards	☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☒ Wildfire
Description of the Problem:	Drought impacts the communities and also increases the County's overall risk for wildfire occurrences. Neighborhoods and small domestic water providers experience declines in well productivity and water quality during periods of drought.	
Description of the Solution:	The Department of Community Development and Administration Office will work together to implement the Douglas County Water Alternatives Program. The Douglas County Water Alternatives Program has accomplished to date: • A 2021 feasibility study for Louviers resulted in \$4.3 million of ARPA funds being allocated in 2022 towards extension of a water line that can deliver renewable water to the Louviers Water and Sanitation District. • In 2023, a study of the feasibility of connecting to Castle Rock Water was completed for Keene Ranch, Castle Mesa, and Castle Oaks subdivisions. • In 2023, a study of the feasibility of connecting Parker Water and Sanitation District or Castle Rock Water was completed for the Happy Canyon subdivision. • In 2024 a study of the feasibility of connecting to the Town of Larkspur's water system was completed for three properties south of the Town. • Since the inception of the program, the following communities have made connections to renewable water supplies: • Plum Valley Heights • Chatfield East • Chatfield Acres • Titan Industrial Park • Ravenna	
Estimated Cost:	Varies depending on each project funded through program	
Potential Funding Sources:	General funds allocated for this County program	
Implementation Timeline:	Ongoing funding opportunities	
Goals Met:	2, 3, 4, 6, 7	
Benefits:	This program assists homeowners and small domestic water providers in developing renewable water supply alternatives through the funding of feasibility studies and engineering costs. Participants in the program may also use the support as leverage for additional grant funding opportunities. Diversification of water supplies by entities that provide water to existing developments can improve their capability to withstand drought conditions and limit wildfire risks.	
Impact on Future Development:	The Douglas County Water Alternatives Program promotes sustainable growth by enabling homeowners and small water providers to secure renewable water sources, reducing drought vulnerability and supporting resilient future development.	
Impact on Critical Facilities/Lifelines:	By funding feasibility studies and engineering costs, the program strengthens water infrastructure and ensures reliable access to safe drinking water, protecting public health and essential services during emergencies.	
Impact on Capabilities:	Providing technical support and leveraging grant opportunities enhances the County's capacity to implement innovative water solutions, improving long-term resilience and operational effectiveness in resource management.	
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP)	☒ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)
CRS Category:	☒ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)	☒ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)

Priority:	☒ High	☐ Medium	☐ Low
Alternatives:	No Action	Current problem exists	
	Rely on state or federal grant funds	Not always accessible to local residents or water districts, very competitive nationally.	
	Rely on non-profit assistance	Usually dependent on hazard and only available post-disaster occurrence.	

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Action 2026-DouglasCo-15. Technical Support for Water Resource Planning

Lead Agency:	Department of Community Development, Community and Resource Services Division		
Supporting Agencies:	-		
Hazard(s) of Concern:	☐ Dam Failure ☒ Drought ☐ Earthquake ☐ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☒ Wildfire		
Description of the Problem:	Drought impacts County residents' daily lives and can increase the overall risk to wildfire occurrence. Homeowners, small communities, and water districts may not have the knowledge, staff, or financial capabilities available to mitigate drought and lessen wildfire risks.		
Description of the Solution:	Douglas County Department of Community Development and County Administration staff will offer technical support to homeowners, small communities, and water districts to aid with limited resource issues and address water resource planning needs in the community. Support could include fostering relationships, providing research assistance, or coordinating public outreach efforts. Diversification of water supplies by entities that provide water to existing developments can improve their capability to withstand drought conditions and limit wildfire risks. Progress to date includes: - In 2022, \$2.65 million of ARPA allocation was committed to the Sedalia Water and Sanitation District (SWSD) to partially fund replacement of aging water infrastructure and a future interconnect with regional water providers. - In 2022, \$1.96 million of ARPA allocation was committed to the Louviers Water and Sanitation District (LWSD) to be put towards improvements to its existing infrastructure to remove radium from their water supply. Since completion of the radium removal project in 2025, multiple water tests show that the radium levels are below the threshold for public health issues. - In 2023, Douglas County entered into agreements with Castle Rock and Dominion WSD to fund water and wastewater improvements on the Highway 85 corridor. - In 2024 and 2025, Castle Rock Water and Dominion Water and Sanitation Division have continued to execute their water and wastewater projects with County support.		
Estimated Cost:	Varies depending on the project and outreach		
Potential Funding Sources:	General funds allocated by the County		
Implementation Timeline:	Ongoing efforts, as funds remain available		
Goals Met:	3, 4, 6, 7		
Benefits:	This action will improve the public education and outreach capabilities in the County by including discussions on disaster preparedness and hazard mitigation to residents and business owners, which will contribute to the resiliency of the County.		
Impact on Future Development:	Providing technical support and fostering water resource planning strengthens the sustainability of future development by ensuring reliable water supplies and reducing vulnerability to drought and wildfire risks.		
Impact on Critical Facilities/Lifelines:	Investments in water infrastructure and interconnectivity protect essential services like drinking water and sanitation, safeguarding public health and maintaining continuity for communities during emergencies.		
Impact on Capabilities:	Coordinated outreach, research assistance, and partnerships enhance the County's ability to manage limited resources effectively, improving resilience and operational capacity for long-term water security.		
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☒ Education and Awareness Programs (EAP)		
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☒ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)		
Priority:	☒ High	☐ Medium	☐ Low

Alternatives:	No Action	Current problem exists
	Mandate water restrictions	Not publicly backed.
	Rely on state and federal public outreach resources	Not always locally pertinent or available to residents.

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Action 2026-DouglasCo-16. Developing Fuels Management Strategies for County Park and Trail Properties

Lead Agency:	Parks and Recreation Department								
Supporting Agencies:	Douglas County Wildfire Mitigation								
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☐ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☒ Wildfire								
Description of the Problem:	Douglas County owns several parks and trails in the wildland urban interface, particularly on the edges of developed subdivisions. The built environment may become increasingly at risk to the wildfire hazard if wildfire fuel is not cleared.								
Description of the Solution:	The Parks and Recreation Department along with the Douglas County Wildfire Mitigation Group will work to identify fuel management strategies for the wildland urban interface area. These mitigation efforts will be incorporated as Standard Operating Procedures (SOP) for the County. These efforts include the following: maintaining proper trail width to provide recreation and fire break capabilities, fuel reduction through vegetation removal, and noxious weed management. Douglas County's efforts to incorporate fuels management into SOP are an effective tool for wildfire mitigation and will continue in the future.								
Estimated Cost:	Low								
Potential Funding Sources:	General funds, staff time								
Implementation Timeline:	Ongoing implementation								
Goals Met:	4, 5								
Benefits:	The removal of fire fuel can drastically reduce the risk of wildfires. Removing the fire fuel in risk areas can further protect persons and property from potential impacts.								
Impact on Future Development:	Integrating fuel management strategies into SOPs will reduce wildfire risk in the wildland-urban interface, creating safer conditions for new development and long-term community growth.								
Impact on Critical Facilities/Lifelines:	These mitigation efforts help protect essential infrastructure, parks, and trails from wildfire damage, ensuring continuity of critical services and recreational access during emergencies.								
Impact on Capabilities:	Standardized procedures for vegetation management, trail maintenance, and weed control strengthen operational readiness and improve the County's ability to respond effectively to wildfire threats.								
Mitigation Category:	☒ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)								
CRS Category:	☒ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)								
Priority:	☒ High ☐ Medium ☐ Low								
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Remove structures from WUI area</td><td>Loss of critical services, costly, and problem still persists.</td></tr> <tr> <td>Relocate structures from WUI area</td><td>Loss of critical services, costly, and there is limited space available to relocate these structures within the County jurisdiction.</td></tr> </tbody> </table>			No Action	Current problem exists	Remove structures from WUI area	Loss of critical services, costly, and problem still persists.	Relocate structures from WUI area	Loss of critical services, costly, and there is limited space available to relocate these structures within the County jurisdiction.
No Action	Current problem exists								
Remove structures from WUI area	Loss of critical services, costly, and problem still persists.								
Relocate structures from WUI area	Loss of critical services, costly, and there is limited space available to relocate these structures within the County jurisdiction.								

Action 2026-DouglasCo-17. Wildfire Education

Lead Agency:	County Wildfire Mitigation		
Supporting Agencies:	Colorado State Forest Service (CSFS)		
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☐ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☒ Wildfire		
Description of the Problem:	Coordination and homeowner requests would be much more efficient with a digital platform to schedule, track, and create/disseminate final reports (especially for home ignition zone assessments.) This would allow the County to standardize assessments across partner agencies.		
Description of the Solution:	The County Wildfire Mitigation Department and Colorado State Forest Service (CSFS) will work to deliver individual and community-level wildfire risk assessments, develop actionable mitigation recommendations, and support the planning and implementation of community wildfire mitigation projects.		
Estimated Cost:	Low (staff time)		
Potential Funding Sources:	General funds, staff time		
Implementation Timeline:	Ongoing program		
Goals Met:	2, 3, 4, 5, 6		
Benefits:	This action will enhance program effectiveness through coordinated outreach, community networking events, and partnerships with local fire agencies to broaden engagement and maximize mitigation outcomes.		
Impact on Future Development:	This project strengthens future development by promoting wildfire-resilient land use decisions informed by localized risk assessments and clear mitigation guidance.		
Impact on Critical Facilities/Lifelines:	By reducing wildfire exposure through targeted mitigation planning, this effort enhances the protection and operational continuity of critical facilities across Douglas County.		
Impact on Capabilities:	The project expands Douglas County's overall capabilities by improving community engagement, strengthening interagency coordination, and increasing the county's capacity to plan and implement effective wildfire mitigation strategies.		
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☒ Education and Awareness Programs (EAP)		
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☒ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)		
Priority:	☒ High	☐ Medium	☐ Low
Alternatives:	No Action	Current problem exists	
	Rely on federal outreach	Great partnership but not reliable as single source for locally available information.	
	Rely on state outreach	Great partnership but not reliable as single source for locally available information.	

Action 2026-DouglasCo-18. Municipal Public Health Plans

Lead Agency:	Douglas County Health Department		
Supporting Agencies:	Local municipalities, Douglas County Department of Human Services, Douglas County Emergency Management		
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☐ Flood ☐ Geologic Hazards	☐ Hazardous Materials ☒ Pandemic ☐ Severe Weather ☐ Wildfire	
Description of the Problem:	Although Douglas County has a written Public Health Plan, many municipalities within the County do not have their own plan written. Public health plans can expand healthy habits, prevent and fight pandemic and disease outbreak, improve safety, and manage chronic conditions like diabetes and mental illness. They are essential for addressing health disparities and promoting health equity within communities.		
Description of the Solution:	Various Douglas County Departments, including the Health Department, Department of Human Services, and the Sheriff's Office's Division of Emergency Management, will assist local municipalities in the development of their own municipal public health plan. The public health plan will serve to protect and improve the health of individuals, families, communities, and populations.		
Estimated Cost:	Low		
Potential Funding Sources:	Municipal budgets, County budget, Public Health Infrastructure Grant		
Implementation Timeline:	5+ years		
Goals Met:	2, 3, 6, 7		
Benefits:	Public health plans can expand healthy habits, prevent and fight pandemic and disease outbreak, improve safety, and manage chronic conditions like diabetes and mental illness. They are essential for addressing health disparities and promoting health equity within communities.		
Impact on Future Development:	Future development generally coincides with an increase in population, whether it be temporary visitors or permanent residencies. The development of Public Health Plans can impact how people make choices of where to live and how to get around, their ability to access healthy foods and opportunities for physical activity, and affect broader issues of social equity, clean air and water, and more.		
Impact on Critical Facilities/Lifelines:	This action will strengthen the Health and Medical lifeline, and potentially the Safety and Security lifeline. Public Health Plans serve to protect and improve the health of individuals, families, communities, and populations.		
Impact on Capabilities:	For many municipalities, the writing of a Public Health Plan will create a new capability. The writing of these plans will assist in making the County as a whole more prepared and understanding of potential vulnerabilities and how to address them.		
Mitigation Category:	☒ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)	
CRS Category:	☒ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)	
Priority:	☐ High	☒ Medium	☐ Low
Alternatives:	No Action Municipalities utilize County plan Municipalities utilize State plan	Current problem exists Covers municipality, but is not written for its population exclusively Covers municipality, but is not written for its population exclusively	

3. CITY OF CASTLE PINES

This jurisdictional annex to the Douglas County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the City of Castle Pines with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Castle Pines, describes who participated in the planning process, assesses Castle Pines' risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

3.1 HAZARD MITIGATION PLANNING TEAM

The City of Castle Pines identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many City departments. The Public Works Director represented the community on the Douglas County HMP Local Planning Committee and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 3-1 summarizes City officials who participated in the development of the annex and in what capacity. Additional documentation of the City's planning activities through Local Planning Committee meetings is included in Volume I.

Table 3-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Larry Nimmo, Public Works Director Address: 7437 Village Square Drive, Suite 200, Castle Pines, CO 80108 Phone Number: 303-705-0216 Email: larry.nimmo@castlepinesco.gov	Name/Title: Donna Ferguson, Director of Community Development Address: 7437 Village Square Drive, Suite 200, Castle Pines, CO 80108 Phone Number: 303-705-0224 Email: donna.ferguson@castlepinesco.gov
National Flood Insurance Program Floodplain Administrator	
According to the FEMA Community Status Book Report, the City of Castle Pines does not participate in the NFIP.	
Additional Contributors	
Name/Title: Michael Penny, City Manager Method of Participation: Attended meetings.	
Name/Title: Charli Smith – Assistant to the City Manager Method of Participation: Provided information on collected worksheets.	
Name/Title: Joseph Marencik, Stormwater Program and Utility Manager Method of Participation: Provided information on collected worksheets.	
Name/Title: Donna Ferguson, Director of Community Development Method of Participation: Provided information on collected worksheets.	

3.2 COMMUNITY PROFILE

3.2.1 Location

City of Castle Pines is set at the base of Daniels Park and situated on 2,433 acres of upland Ponderosa Pine, shrub lands, and grassy plains. The City is bisected by Interstate 25. The land consists of a wide range of topography encompassing mountain vistas, dramatic ridgelines, hills, and grass covered plains.

The current boundaries generally extend from Cherokee Ranch and Daniels Park primarily to the west, Highlands Ranch Open Space Conservation Area to the north, open space and agricultural lands to the east, and agricultural lands to the south, which serve as a physical boundary between the City, Castle Pines Village, and Castle Rock. The City of Castle Pines encompasses an area of 9.55 square miles.

3.2.2 History

City of Castle Pines was incorporated in February 2008. Although the City government is fairly new, residents have been established in the area since the early 1980s, when the first subdivision was platted in unincorporated Douglas County. During this time, the area began a fast growth period during the 1980s, with a historic population of a few thousand, and then slowed down in growth during the early 1990s. In the late 1990s and early 2000s, the population began to increase as new housing and adequate infrastructure became available. In November 2010, the residents of Castle Pines voted to drop the term “North” from the City’s title. In November of 2018, Castle Pines residents opted to move towards Home Rule with the establishment of the Home Rule Charter Commission. The City’s government structure was officially changed on May 14, 2019 to Home Rule.

3.2.3 Governing Body

With the adoption of home rule, Castle Pines follows Colorado laws and operates under a mayor- council government system. The city council and mayor are elected officials. These positions are voluntary, and both the Council and mayor make a multitude of policy decisions on behalf of the jurisdiction. Elections for City Council commence in odd-numbered years, where three to four seats are typically open for election. The Mayor and Council members serve four-year terms.

Development of this annex was carried out by the members of the local mitigation planning team, whose members are listed in Table 3-1.

3.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

Castle Pines performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities

- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day local government operations. As part of the hazard mitigation analysis, planning and /policy documents were reviewed and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. Development of an updated mitigation strategy provided an opportunity for Castle Pines to identify opportunities for integrating mitigation concepts into ongoing City procedures.

3.3.1 Planning and Regulatory Capability and Integration

Table 3-2 summarizes the planning and regulatory tools that are available to Castle Pines.

Table 3-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
CODES, ORDINANCES, & REGULATIONS				
Building Code	Yes	Chapter 18, Building Regulations, 2019	Local	Community Development
How has or will this be integrated with the HMP and how does this reduce risk? Chapter 18 Article 1 adopts the International Building Code which states that: 1. No building shall be hereafter constructed, erected, enlarged, altered, or moved into the City unless the same shall, as to design, construction, quality of materials and workmanship, conform with the IBC, as adopted and as amended. 2. At least one (1) certified true copy of each of the primary and secondary codes adopted by this Article shall be on file in the Office of the City Clerk and available for inspection during regular business hours.				
Zoning/Land Use Code	Yes	Zoning Ordinance in the Unified Development Ordinance	Local	Community Development
How has or will this be integrated with the HMP and how does this reduce risk? The City of Castle Pines is conducting a comprehensive update to its zoning code. The opportunity to incorporate additional mitigation and abatement measures will be contemplated for inclusion into the Code. - Opportunity to integrate with SMFR, Douglas County				
Subdivision Code	Yes	Subdivision Procedures in the Unified Development Ordinance	Local	Community Development
How has or will this be integrated with the HMP and how does this reduce risk? The City of Castle Pines is conducting a comprehensive update to its subdivision code. The opportunity to incorporate additional mitigation and abatement measures will be contemplated for inclusion in the subdivision code.				
Site Plan Code	Yes	Site Improvement Plan Procedures in the Zoning Code	Local and County	Community Development
How has or will this be integrated with the HMP and how does this reduce risk? The City of Castle Pines is conducting a comprehensive update to its subdivision code. The opportunity to incorporate additional mitigation and abatement measures will be contemplated for inclusion in the subdivision code.				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Stormwater Management Code	Yes	Chapter 11-Article 2 of the Municipal code; Storm Drainage Design and Technical Criteria Manual	Local	Community Development

How has or will this be integrated with the HMP and how does this reduce risk?

The purpose and subject matter of the Criteria is to provide minimum technical criteria for the planning, analysis and design of storm drainage systems within the boundaries of the City.

Post-Disaster Recovery/ Reconstruction Code	No	-	-	-

How has or will this be integrated with the HMP and how does this reduce risk?

Real Estate Disclosure Requirements	Yes	C.R.S. 38-35.7-102	State	Sellers and Landlords of commercial or residential property

How has or will this be integrated with the HMP and How has or will this be integrated with the HMP and how does this reduce risk?

In Colorado, real estate transactions involving properties located in flood zones are subject to specific disclosure requirements. Sellers must disclose any known flood damage to the property, which includes past flooding experiences, the presence of a floodplain, and whether the property is covered by flood insurance. Failure to disclose this information can lead to legal repercussions, including claims of misrepresentation or fraud. Sellers are required to provide buyers with access to the current Flood Insurance Rate Map (FIRM) and any related documentation that outlines the specific flood risk associated with the property. This transparency is crucial for buyers to make informed decisions and understand their liabilities regarding flood insurance and the potential for future flooding events.

Growth Management	No	Unified Land Development Code	Local	Community Development

How has or will this be integrated with the HMP and how does this reduce risk?

The City is working to complete its Unified Land Development Code (ULDC). At the conclusion of this process, the City will have a modernized and tailored land development code that meets the needs of the City and its residents through alignment with the City's Comprehensive Plan. This will include everything from organization and formatting to common terminology and cross-referencing. The updated ULDC will combine the Zoning Code and the Subdivision Regulations into one unified code. As of January 2025, approximately 80% of an updated draft document was complete.

Environmental Protection Ordinance(s)	No	-	-	-

How has or will this be integrated with the HMP and how does this reduce risk?

Flood Damage Prevention Ordinance	Yes	Zoning Ordinance, Section 18	Local, Federal	City Engineer

How has or will this be integrated with the HMP and how does this reduce risk?

To minimize flood-related losses in areas subject to flooding, to protect the health, safety, and welfare of the residents, and to minimize hazards due to flooding and flood related erosion in addition to the following:

- to ensure that landowners of areas of special flood hazards assume responsibility for their actions;
- to minimize damage to public facilities and utilities such as water, gas, electric, telephone and sewer lines, roads and bridges located in areas of special flood hazard;
- to minimize expenditure of public money for costly flood control projects and the need for rescue and relief efforts associated with flooding;

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
- to minimize prolonged business interruption; - to protect the hydraulic characteristics of the drainageways, the storage capacity of floodplains, and to assure retention of floodway area to convey flood flows which can reasonably be expected to occur; and - to comply with the program requirements of the Federal Emergency Management Agency (FEMA) in order that national flood insurance is available to City residents. In order to accomplish the intent, this Section includes methods and provisions for: - restricting uses or prohibiting certain uses which would be hazardous to the public health, safety and property; - requiring permitted floodplain uses to be protected against flooding by providing general flood protection at the time of initial construction or reconstruction; - requiring water supply and sanitation systems to be protected against flood damage at the time of initial construction so as to prevent disease, contamination and unsanitary conditions; - delineating areas that could be inundated by flooding thereby protecting individuals from purchasing floodplain land for purposes which are not suitable; - regulating excavation, filling, dumping, dredging, and channelization which may increase flood damage; and - preventing or regulating the construction of flood barriers which will unnaturally divert floodwater or which may increase flood hazards in other areas.				
Wellhead Protection	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Emergency Management Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Change Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other: Wildfire Hazard Areas	Yes	Zoning Ordinance, Section 17	Local	Chief Building Official
How has or will this be integrated with the HMP and how does this reduce risk? To identify Wildfire Hazard Areas and to protect the health, safety, and welfare of residents by minimizing the potential for the loss of life and property by the ignition and spread of wildfires in the Wildland/Urban Interface and the Wildland/Urban Intermix. Specific purposes are as follows: - To develop and maintain a map of Castle Pines that allows for preliminary identification of Wildfire Hazard Areas. - To identify the process for assessing and mitigating the Wildfire Hazard concurrent with the land planning process. - To identify specific types of development to be subject to wildfire mitigation measures and the provisions of the Douglas County Wildfire Mitigation Standards. - To identify the standards with which development proposed in Wildfire Hazard Areas must comply. - To set forth the procedures for identifying, describing, and mitigating wildfire risk during the land development process. - To design wildfire mitigation prescriptions which facilitate overall stewardship by the landowner or other appropriate entity.				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
PLANNING DOCUMENTS				
General/Comprehensive Plan	Yes	Comprehensive Plan, 2021	Local	Community Development
How has or will this be integrated with the HMP and how does this reduce risk? The Comp Plan sets forth goals that recognize and respect natural geologic conditions and hazard risks; specifically, ensure development is appropriate when weighed against hazards and natural constraints, discourage and avoid development in areas with high potential for wildfire, where mitigation is impractical or excessive, or other significant constraints and hazards are present, identify and mitigate wildfire hazards in areas determined appropriate for development, coordinate with local fire and emergency service providers, as well as county and state level wildlife departments on pertinent wildlife management issues.				
Capital Improvement Plan	Yes	Five-Year Capital Projections, 2019-2023	Local	Public Works
How has or will this be integrated with the HMP and how does this reduce risk? The Five-Year Capital Projections is part of the annual budget and is approved by the City Council. This plan approves the current year and projects future investments in capital projects as directed by the City Council.				
Disaster Debris Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Floodplain Management or Watershed Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Stormwater Management Plan	Yes	Stormwater Management Program	Local	Stormwater Program Manager
How has or will this be integrated with the HMP and how does this reduce risk? The City has a stormwater management program (Chapter 11) as a part of the MS4 permit and this program can include policies and procedures for responding to flooding events.				
Open Space Plan	Yes	Comprehensive Plan, 2021	Local	Parks, Recreation and Open Space
How has or will this be integrated with the HMP and how does this reduce risk? The City of Castle Pines has plans on the maintenance of open space lands that are currently being updated.				
Urban Water Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Habitat Conservation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Economic Development Plan	Yes	Economic Development Action Plan, 2020	Local	City Manager's Office
How has or will this be integrated with the HMP and how does this reduce risk? In 2019 the City adopted an Economic Development Action Plan. We are currently in the process of updating our plan for 2026.				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Community Wildfire Protection Plan How has or will this be integrated with the HMP and how does this reduce risk? The City completed the CWPIP in 2024 and has completed mitigation efforts on 240 acres of open space	Yes	Community Wildfire Protection Plan, 2024	Local	Parks, Recreation and Open Space
Community Forest Management Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Transportation Plan How has or will this be integrated with the HMP and how does this reduce risk? The City is in the process of updating the Transportation Master Plan.	Yes	Transportation Master Plan Update, 2026	Local	Public Works
Agriculture Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Climate Action/ Resilience/Sustainability Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Tourism Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Business/ Downtown Development Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Other How has or will this be integrated with the HMP and how does this reduce risk? The strategic document that evaluates historic - crash data and system challenges and identifies strategies and actions to reduce the potential for significant injuries and fatalities in the future. This Safety Action Plan (SAP) builds on the City's momentum in creating a safe, reliable, and connected system. This SAP provides a 'playbook' of prioritized and community-informed projects and recommended policy/process changes aim to reduce significant injuries over time.	Yes	Safety Action Plan, 2021	Local	City Manager's Office
Other How has or will this be integrated with the HMP and how does this reduce risk? The Stormwater Pollution Prevention Plan includes the procedures and process for post construction stormwater management for new development and redevelopment, and stormwater ordinances for the City.	Yes	Stormwater Pollution Prevention Plan, 2022	Local	Stormwater Program Manager

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Other	Yes	Strategic Plan, 2025-2026	Local	City Council
How has or will this be integrated with the HMP and how does this reduce risk? The plan seeks to ensure a successful future for the City through excellence in actions to ensure long-term financial resiliency and vitality; -constructing reliable and safe infrastructure; building our community through intentional and responsible development; continuous outreach and engagement to foster a united community; supporting high performing operations through our top-notch city government; and attracting a wide variety of top-tier businesses to maximize our economic strength				
RESPONSE/RECOVERY PLANNING				
Emergency Operations Plan	Yes	Emergency Management Plan, 2023	Local	City Manager's Office
How has or will this be integrated with the HMP and how does this reduce risk? The City of Castle Pines has an Emergency Management Plan which will allow the City to work with the County and State				
Continuity of Operations Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Substantial Damage Response Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Threat and Hazard Identification and Risk Assessment	Yes	Emergency Management Plan	Local	City Manager's Office
How has or will this be integrated with the HMP and how does this reduce risk? This is included in the Emergency Management Plan.				
Post-Disaster Recovery Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Public Health Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

3.3.2 Development and Permitting Capability

Table 3-3 summarizes the capabilities of Castle Pines to oversee and track development.

Table 3-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits?	Yes	-
- If you issue development permits, what department is responsible? - If you do not issue development permits, what is your process for tracking new development?	-	The Community Development Department.
Are permits tracked by hazard area? (For example, floodplain development permits.)	No	-
Do you have a buildable land inventory? If you have a buildable land inventory, please describe	Yes	We have Residential and Commercial Land available for future building.
Describe the level of buildout in your jurisdiction.	N/A	The City is not built out. It still has zoned, but undeveloped residential and commercial land on both the west and east sides of I-25. We are zoned for additional residential units and up to 2.1 million square feet of commercial on the east side of the City, and approximately 150 residential units and 500,000 sq. ft of mixed use/commercial on the west side of the City.

3.3.3 Administrative and Technical Capability

Table 3-4 summarizes potential staff and personnel resources available to Castle Pines and their current responsibilities that contribute to hazard mitigation.

Table 3-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
ADMINISTRATIVE CAPABILITY		
Planning Board	Yes	The City of Castle Pines Planning Commission deliberates and makes recommendations to the City Council on land-use applications, proposed long-range policy planning documents, and zoning regulations. The Commission consists of seven residents from various backgrounds who are appointed by the City Council.
Zoning Board of Adjustment	Yes	The City of Castle Pines Board of Adjustment holds public hearings on variance requests and considers appeals to interpretations made by City staff. The Board of Adjustment is comprised of the same members as the Planning Commission and meets on the same meeting days, as needed.
Planning Department	Yes	Community Development plays an important role in the management, preservation, and advancement of the City's natural resources, built environment, and quality of life. The Department is comprised of three inter-related divisions that coordinate services for development

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
		activities in the City of Castle Pines in including Planning and Zoning, Building Department, and Code Enforcement.
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	Yes	Parks and Recreation Advisory Board provides recommendations to the City Council on future needs
Economic Development Commission/Committee	Yes	The role of the Finance Department is to oversee the City's financial resources and its workforce.
Public Works/Highway Department	Yes	The Castle Pines Public Works Department is committed to providing safe and reliable public infrastructure, including stormwater management, street maintenance, snow removal and traffic services. The City maintains over 55 miles of roadway.
Construction/Building/Code Enforcement Department	Yes	The City of Castle Pines Building Department is responsible for implementing and enforcing the building code, issuing building permits, and completing building inspections.
Emergency Management/Public Safety Department	Yes	The City of Castle Pines partners with several top-rated agencies to provide residents and visitors with safety services and protection they can depend on.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	This is housed under Public Works.
Mutual aid agreements	Yes	Fire there is no formal agreement with South Metro, for fire/ems since the City is within the jurisdiction. Police response there is an IGA with the DCSO. Emergency Management is an IGA with DCSO.
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	-
Other	Yes	Castle Pines Recreation
TECHNICAL/STAFFING CAPABILITY		
Planners or engineers with knowledge of land development and land management practices	Yes	In-house Planner
Engineers or professionals trained in building or infrastructure construction practices	Yes	Internal and contracted civil engineers
Planners or engineers with an understanding of natural hazards	Yes	In-house Planners
Staff with expertise or training in benefit/cost analysis	Yes	Contracted
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazus applications	Yes	Contracted

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Staff that work with socially vulnerable populations or underserved communities	No	-
Environmental scientists familiar with natural hazards	Yes	Contracted
Surveyors	No	-
Emergency manager	Yes	Contracted
Grant writers	No	-
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	Yes	Contracted

3.3.4 Fiscal Capability

Table 3-5 summarizes financial resources available to Castle Pines.

Table 3-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	Yes, subject to voter approval
User fees for water, sewer, gas, or electric service	No
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	Yes
Incur debt through general obligation bonds	Yes, subject to voter approval
Incur debt through special tax bonds	Yes, subject to voter approval
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	Yes
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	Yes
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

3.3.5 Education and Outreach Capability

Table 3-6 summarizes the education and outreach resources available to Castle Pines.

Table 3-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	City Manager's Office

Outreach Resources	Available? (Yes/No)	Comment
Personnel skilled or trained in website development	Yes	Contracted
Hazard mitigation information available on your website	Yes	Various plans, stormwater information
Social media for hazard mitigation education and outreach	Yes	Facebook, NextDoor, YouTube, X, Instagram, LinkedIn
Citizen boards or commissions that address issues related to hazard mitigation	Yes	City Council
Warning systems for hazard events	Yes	County notification system
Natural disaster/safety programs in place for schools	No	-
Organizations that conduct outreach to socially vulnerable populations and underserved populations	No	-
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	Email and electronic newsletter

3.3.6 Community Classifications

Table 3-7 summarizes classifications for community programs available to Castle Pines.

Table 3-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable

3.4 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). According to the FEMA Community Status Book Report, the City of Castle Pines does not participate in the NFIP.

3.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern.

Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 3-8 through Table 3-10.

Table 3-8. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
2020				
Total Permits	-	-	-	413
Permits within SFHA	-	-	-	0
2021				
Total Permits	-	-	-	619
Permits within SFHA	-	-	-	0
2022				
Total Permits	-	-	-	375
Permits within SFHA	-	-	-	0
2023				
Total Permits	-	-	-	152
Permits within SFHA	-	-	-	0
2024				
Total Permits	-	-	-	200
Permits within SFHA	-	-	-	0

SFHA = Special Flood Hazard Area (1% flood event)

Table 3-9. Recent Major Development and Infrastructure from 2020 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones	Description / Status of Development
Castle Pines Indoor Self-storage	Commercial	1 structure	Lot 1B, Lagae Family Minor Development	Hazardous Materials, Wildfire	Construction In Progress
Lifetime	Commercial	1 structure	Lot 1, Canyonside F3	Hazardous Materials, Wildfire	Approved by Board Committee
The Canyons Filing No. 3	Residential	450 units	Various	Hazardous Materials, Geologic Hazards, Wildfire	Construction In Progress

Table 3-10. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones	Description / Status of Development
No known or anticipated major development or infrastructure was identified.					

3.6 JURISDICTIONAL RISK ASSESSMENT

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Castle Pines' risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

3.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the City are shown in Figure 3-1 through Figure 3-2. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Castle Pines has significant exposure. The maps show the location of potential new development, where available.

Figure 3-1. Castle Pines Hazard Area Extent and Location Map 1

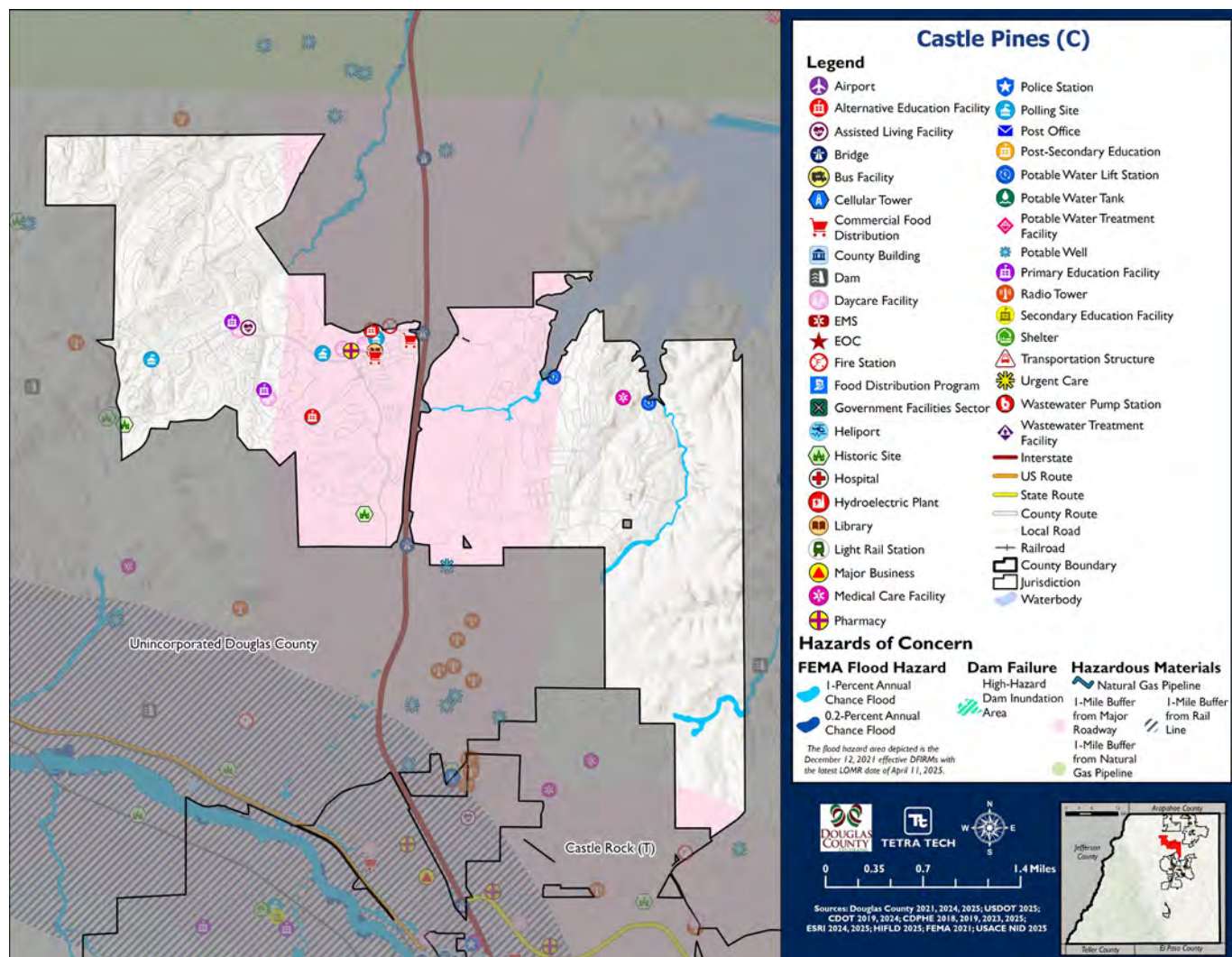
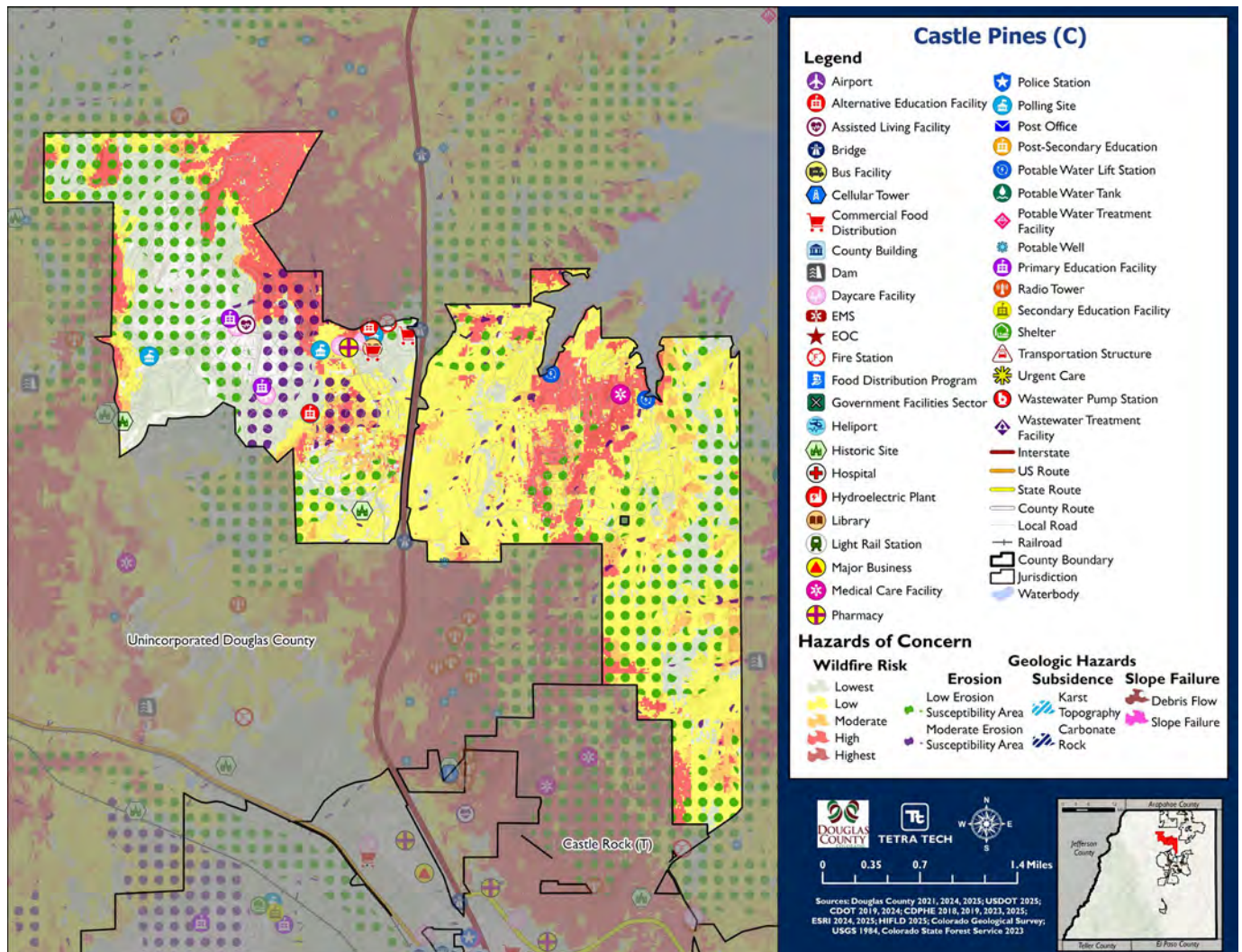


Figure 3-2. Castle Pines Hazard Area Extent and Location Map 2



3.6.2 Hazard Event History

The history of natural and non-natural hazard events in Castle Pines is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its jurisdictions. Table 3-11 provides details on loss and damage in Castle Pines during hazard events since the last hazard mitigation plan update.

Table 3-11. Hazard Event History in Castle Pines

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses
September 6, 2019	Severe Weather	N/A	Severe thunderstorms produced a combination of large hail (1.25 inches) and heavy rain. A brief tornado touched down in an open field near Highlands Ranch. A blast of lightning triggered a house fire in Douglas County, causing extensive damage.	No damage or losses reported.
October 29-30, 2019	Severe Weather	N/A	A winter storm brought record breaking temperatures and up to a foot of snow. Numerous schools were closed due to heavy snow and hazardous road conditions. Storm totals included: 10 inches near Parker; 7.5 inches near Castle Pine.	No damage or losses reported.
January 20, 2020 - May 11, 2023	Pandemic EM-3436-CO, DR-4498-CO	Yes	During the COVID-19 pandemic disaster declaration, there were a reported 102,146 cases of COVID-19 and 527 COVID-19 related deaths in Douglas County.	No damage or losses reported.
March 13-14, 2021	Severe Weather	N/A	Strong winds compounded with heavy snowfall made the roadways impassable in the afternoon and evening. Peak wind gusts to 48 mph produced extensive drifting snow. Drifts ranged from 3 to 6 feet deep. The heavy wet snow caused extensive tree damage and produced power outages.	No damage or losses reported.
November - December 2021	Drought	N/A	Portions of the County were in a severe to extreme drought classification (D2/D3) through the months of November and December.	No damage or losses reported.
February 23, 2023	Severe Weather	N/A	Bands of moderate to heavy snow showers coupled with strong winds produced poor visibilities and hazardous driving conditions. During the morning	No damage or losses reported.

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses
			hours on the 23rd, wind chill temperatures ranged from -25°F to -30°F.	
May 12-13, 2023	Flood	N/A	Swollen creeks and streams produced flooding and flash flooding. Numerous hiking trails in Castlewood Canyon State Park were closed as they were underwater and impassable. Three men in the foothills of Douglas County had to be rescued when their vehicle got stuck in snow along Rampart Range Road in Pike National Forest.	Localized flooding in a few areas of the City. Development activities on the in the Canyons were impacted.
June 22, 2023	Severe Weather DR-4731-CO	Yes	An EF1 tornado touched down just south of CO-470 in the city of Highlands Ranch. Preliminarily the tornado was on the ground for 6.3 miles. No injuries were reported but over 100 trees were downed. Some window/shingle damage has been noted to both houses and commercial properties. Up to 2.5 inches hail occurred.	Localized flooding on Monarch Blvd.
January 13-16, 2024	Severe Weather	N/A	A long duration snowfall event occurred resulting in several feet of snow. Total snowfall accumulations across the urban corridor and northeast were light, with storm totals generally less than 6 inches, but the icy conditions did cause some travel impacts. Wind chill temperature dropped to -34°F; the record low of -19°F was tied on the morning of the 16th. Some of the plains locations dropped down to -30°F.	No damage or losses reported.
June 9, 2024	Severe Weather, Flood	N/A	Slow moving thunderstorms produced hail (1.25 inches) and heavy rainfall. There were reports of cars being swamped due to rising waters.	No damage or losses reported.
July 30 – August 7, 2024	Wildfire	N/A	A fire was contained August 7th after reaching about 579 acres. No structures were lost in the fire. Several firefighters were treated for heat exhaustion. Mandatory evacuations were ordered for the Deer Creek Mesa	No damage or losses reported.

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses
			area and several subdivisions in the area of Ken Caryl.	

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

3.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Castle Pines.

Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions. Castle Pines reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the City indicated the following:

- Drought: Adjusted to a low hazard ranking. Considering the city's current industry composition (excluding agriculture and sectors that require water for cooling, such as data centers and hospitals), a drought would likely have a limited impact on Castle Pines' economy or infrastructure.
- Dam Failure: City would have downstream impacts if a dam failure were to occur.
- Hazardous Materials: Hazardous waste can be transported on I-25, leading to a risk of a spill if there is an accident or issue with transport.

Table 3-12 shows Castle Pines' final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 3-12. Hazard Ranking

Hazard	Rank
Dam Failure	Low
Drought	Low
Earthquake	Low
Flood	Medium
Geologic Hazards	Medium
Hazardous Materials	Medium
Pandemic	Medium
Severe Weather	High

Hazard	Rank
Wildfire	High

Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction

Critical Facilities

Table 3-13 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 3-13. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Event	0.2% Event		
Newlin Liftstation	Potable Water Lift Station	Yes	Yes	2026-CastlePines-08	No

Source: Douglas County; CDOT; CDPHE; ESRI; HIFLD; US Energy Information Administration; FEMA

3.6.4 Identified Issues

After a review of Castle Pines' hazard event history, hazard rankings, hazard location, and current capabilities, Castle Pines identified the following vulnerabilities within the community:

- City of Castle Pines will coordinate with South Metro Fire Rescue to reduce fuel load throughout high-risk areas of the City, including WUI areas of Castle Pines and unincorporated Douglas County. The City has completed mitigation of 242.31 acres and has approximately 40 acres of mitigation work remaining.
- The City needs to update the land development code to promote water conservation measures, including a requirement for future commercial development to include 50% xeriscaping when feasible.
- The City needs to purchase a weather service that is specific to Castle Pines to provide real-time data to increase warning capacity for high-hazard events.
- The City does not have an up-to-date Emergency Management Plan or training in place for staff.
- The City does not have an adopted Continuity of Operations Plan (COOP) in place.
- City residents need better awareness for and accurate information on wildfire risk and safety measures.
- City staff need additional training on emergency management response and procedures in the event of a hazard occurrence.
- Critical facilities need to be protected to the 500-year flood level. The Newlin Lift station facility is located in the flood hazard area.
- Though the City has minimal flood risks, concerns with localized areas of flooding may rise due to more intense precipitation events. Joining the National Flood Insurance Program would permit the City to incorporate best practices to better protect the City, its residents, and their properties from potential damage.
- Although dam risk is low, there may be the potential for impacts on the Lemon Gulch as a result of the flood waters should the Lemon Gulch Dam, a low-hazard dam, have a failure.

- Hazardous waste can be transported on I-25, leading to a risk of a spill if there is an accident or issue with transport.

3.7 MITIGATION STRATEGY AND PRIORITIZATION

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

3.7.1 Past Mitigation Action Status

Table 3-14 indicates progress on the City's mitigation strategy identified in the 2021 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

3.7.2 Additional Mitigation Efforts

In addition to the mitigation actions completed in Table 3-14, Castle Pines identified the following mitigation efforts completed since the last HMP:

- The City coordinated with various divisions from County, State and Federal entities to identify vulnerable populations and facilities; and develop a preparedness plan to ensure continuity of operations during a potential epidemic or pandemic.
- The City developed a City-wide protocol for extreme weather conditions to address cancellation and evacuation for outdoor events; and ensure all attendees at outside events are aware of safety precautions.
- The City has adopted the 2022 International Building and Fire Code with Amendments. These codes establish the minimum requirements for building codes for all new construction and tenant finishes and the fire and life safety codes for new and existing businesses.
- The City has joined the Douglas County Wildfire Partnership and attends the monthly meeting.
- Upgraded the existing inlet and added a secondary inlet at Monarch Boulevard and Lagae Road.

Since the adoption of the County's first HMP, Castle Pines has made significant mitigation progress in the following areas:

- Plan development and adoption
- Wildfire risk reduction
- Stormwater management

Table 3-14. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
Action CP-001	Wildfire prevention and fuel reduction.	Wildfire	City of Castle Pines, SMFR and Douglas County	City of Castle Pines will coordinate with South Metro Fire Rescue to reduce fuel load throughout high-risk areas of the City, including WUI areas of Castle Pines and unincorporated Douglas County.	1. Ongoing Capability - Maintenance of the mitigated areas. 2. The City has completed mitigation of 242.31 acres and has approximately 40 acres of mitigation work remaining.	1. Include in the 2026 HMP 2. The City will engage a contractor to complete handwork to remove ladder fuels as well as remove weeds that grow in the previously mitigated areas. We will engage goats to continue removing new growth of scrub oak.
Action CP-002	Update Land Development Code.	Wildfire, Drought	Special Districts, City of Castle Pines	Update land development code to promote water conservation measures, including a requirement for future commercial development to include 50% xeriscaping when feasible. ETC.	1. In Progress 2. Pending update and City Council approval. Approval expected in 2026	1. Include in the 2026 HMP 2. The City Council will work to approve adopting the requirement for future commercial development to include 50% xeriscaping when feasible. 3. N/A
Action CP-003	Pandemic Preparedness Plan.	Pandemic	CDPHE, Douglas County, City of Castle Pines	Coordinate with various divisions from City, County, State and Federal entities to identify vulnerable populations and facilities; and develop a preparedness plan to ensure continuity of operations during a potential epidemic or pandemic.	1. Complete 2. N/A	1. Discontinue 2. N/A 3. Completed Action
Action CP-004	Lightning/ Severe Weather protocols for outside events.	Severe Storm	City of Castle Pines, Douglas Country	Develop a City-wide protocol for extreme weather conditions to address cancellation and evacuation for outdoor events; and ensure all attendees at outside events are aware of safety precautions.	1. Complete 2. N/A	1. Discontinue 2. N/A 3. Completed Action

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
Action CP-005	Enhanced Warning and Weather Service.	Severe Storm	City of Castle Pines	Purchase weather service specific to Castle Pines to provide real-time data to increase warning capacity for high-hazard events.	1. In Progress 2. Challenges with funding availability.	1. Include in the 2026 HMP 2. The City will explore funding opportunities to purchase weather service specific to Castle Pines to provide real-time data to increase warning capacity for high-hazard events.
Action CP-006	International Building Code Update.	Severe Storm, Wildfire	City of Castle Pines	The City has adopted the 2022 International Building and Fire Code with Amendments. These codes establish the minimum requirements for building codes for all new construction and tenant finishes and the fire and life safety codes for new and existing businesses	1. Complete 2. N/A	1. Discontinue 2. N/A 3. Completed Action
Action CP-007	Douglas County Wildfire Partnership.	Wildfire	City of Castle Pines, DCWP; SMFR	Castle Pines will join the Douglas County Wildfire Partnership (DCWP). Castle Pines along with South Metro Fire and Rescue and various state, federal, NGO, and private stakeholders, will work with the Partnership to assess impact from wildfire; identify opportunities to maintain continuity of operations; and develop a comprehensive mitigation strategy to identify projects that will reduce wildfire risk, increase natural resource protection, encourage the incorporation of wildfire management principles into local planning, land use and building	1. Complete - ongoing capability 2. Castle Pines has joined the Douglas County Wildfire Partnership and attends the monthly meeting.	1. Discontinue. 2. Castle Pines will continue to work with the Partnership to assess impact from wildfire; identify opportunities to maintain continuity of operations; and update comprehensive mitigation strategies to identify projects that will reduce wildfire risk, increase natural resource protection, encourage the incorporation of wildfire management principles into local planning, land use and building codes, and promote public awareness of wildfire risk. 3. Ongoing capability, completed action.

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				codes, and promote public awareness of wildfire risk.		

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3.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Castle Pines participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 “Selecting Appropriate Mitigation Measures for Floodprone Structures” (March 2007)
- FEMA “Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards” (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Castle Pines would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in City priorities.

Table 3-15 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 12 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 3-16 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.

Table 3-15. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure	X			X	X					X
Drought	X			X				X		X
Earthquake	X			X						X
Flood	X			X	X	X				X
Geologic Hazards	X			X						X
Hazardous Materials	X									X
Pandemic	X									X
Severe Weather	X			X	X					X
Wildfire	X		X	X	X	X	X	X		X

Local Plans and Regulations (LPR)—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

Structure and Infrastructure Project (SIP)—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

Natural Systems Protection (NSP)—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

Education and Awareness Programs (EAP)—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

Preventative Measures (PR)—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

Property Protection (PP)—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

Public Information (PI)—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

Natural Resource Protection (NR)—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

Structural Flood Control Projects (SP)—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

Emergency Services (ES)—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities

Table 3-16. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria												Total	High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Administrative	Hazards of Concern	Timeline	Community Lifelines	Other Local Objectives		
2026-Castle Pines-01	Wildfire Prevention and Fuel Reduction	1	1	1	1	1	1	0	1	1	1	1	0	10	High
2026-Castle Pines-02	Update Land Development Code	1	1	1	1	1	1	1	1	1	1	1	0	11	High
2026-Castle Pines-03	Enhanced Warning and Weather Service	1	1	1	1	1	0	0	1	1	1	1	1	10	High
2026-Castle Pines-04	Update City-Wide Emergency Management Plan	1	1	1	1	1	1	0	1	1	1	1	1	11	High
2026-Castle Pines-05	Develop a Continuity of Operations Plan (COOP)	1	1	1	1	1	1	0	1	1	1	1	1	11	High
2026-Castle Pines-06	Wildfire Education	1	1	1	1	1	1	1	1	1	1	1	1	12	High
2026-Castle Pines-07	Training for Staff on Emergency Management	1	1	1	1	1	1	0	1	1	1	1	0	10	High
2026-Castle Pines-08	Critical Facility Protection	1	1	1	1	1	1	0	1	1	1	1	0	10	High
2026-Castle Pines-09	Consider Joining the NFIP	0	1	1	1	1	1	1	0	0	1	0	0	7	Medium
2026-Castle Pines-10	Dam Owner Partnership	1	1	1	1	1	1	0	1	0	1	1	0	9	High
2026-Castle Pines-11	Hazardous Materials Transport	1	1	1	1	1	1	1	1	0	1	1	0	10	High

Note: Volume I, Section 19 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-12).

Action 2026-Castle Pines-01. Wildfire Prevention and Fuel Reduction

Lead Agency:	City of Castle Pines		
Supporting Agencies:	SMFR and Douglas County		
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☐ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☒ Wildfire		
Description of the Problem:	City of Castle Pines will coordinate with South Metro Fire Rescue to reduce fuel load throughout high-risk areas of the City, including WUI areas of Castle Pines and unincorporated Douglas County. The City has completed mitigation of 242.31 acres and has approximately 40 acres of mitigation work remaining.		
Description of the Solution:	The City will engage a contractor to complete handwork to remove ladder fuels as well as remove weeds that grow in the previously mitigated areas. Investigate the feasibility of utilizing goats to continue removing new growth of scrub oak.		
Estimated Cost:	Low		
Potential Funding Sources:	General funds		
Implementation Timeline:	Short (1-2 years)		
Goals Met:	2, 4, 5, 6		
Benefits:	The removal of fire fuel can drastically reduce the risk of wildfires. Removing the fire fuel in WUI areas can further protect persons and property from potential impacts.		
Impact on Future Development:	This action will protect future development planned in and around WUI areas.		
Impact on Critical Facilities/Lifelines:	Critical facilities will be better protected and able to operate more proficiently by lessening the exposure to wildfire impacts.		
Impact on Capabilities:	This will increase the wildfire response and mitigation capabilities of the City.		
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP) ☒ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)		
CRS Category:	☐ Preventative Measures (PR) ☒ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)		
Priority:	☒ High	☐ Medium	☐ Low
Alternatives:	No Action		Current problem exists
	No partnership with the SMFR		Loss of critical knowledge and resources for wildfire mitigation.
	Rely on state assistance		Not always reliable and not available at this time.

Action 2026-Castle Pines-02. Update Land Development Code

Lead Agency:	City of Castle Pines		
Supporting Agencies:	Special Districts		
Hazard(s) of Concern:	☐ Dam Failure ☒ Drought ☐ Earthquake ☐ Flood ☐ Geologic Hazards	☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☒ Wildfire	
Description of the Problem:	The City needs to update the land development code to promote water conservation measures, including a requirement for future commercial development to include 50% xeriscaping when feasible.		
Description of the Solution:	The City Council will work to approve adopting the requirement for future commercial development to include 50% xeriscaping when feasible.		
Estimated Cost:	Low		
Potential Funding Sources:	General funds, Special District funds		
Implementation Timeline:	Short-term (1-2 years)		
Goals Met:	2, 4, 5		
Benefits:	Xeriscaping reduces or eliminates the need for irrigation, using plants adapted to the local climate. This reduces the vegetation's need for excessive watering. Local plant species will be more resilient to hazards in the area, including wildfire.		
Impact on Future Development:	Future commercial developments will need to incorporate xeriscaping into site planning, encouraging more sustainable and climate-resilient landscaping practices.		
Impact on Critical Facilities/Lifelines:	By reducing water demand, the policy can help preserve water availability for critical facilities during droughts or emergencies.		
Impact on Capabilities:	Implementing this requirement may necessitate enhanced planning and enforcement capabilities within the City's development review and inspection processes.		
Mitigation Category:	☒ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)	
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)	☒ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)	
Priority:	☒ High	☐ Medium	☐ Low
Alternatives:	No Action		Current problem exists
	Rely on property owners to xeriscape		Will not always adhere unless regulated.
	Rely on federal resources during drought		Not always reliable or available locally.

Action 2026-Castle Pines-03. Enhanced Warning and Weather Service

Lead Agency:	City of Castle Pines								
Supporting Agencies:	-								
Hazard(s) of Concern:	☒ Dam Failure ☒ Drought ☒ Earthquake ☒ Flood ☒ Geologic Hazards	☐ Hazardous Materials ☐ Pandemic ☒ Severe Weather ☒ Wildfire							
Description of the Problem:	The City needs to purchase a weather service that is specific to Castle Pines to provide real-time data to increase warning capacity for high-hazard events.								
Description of the Solution:	The City will explore funding opportunities to purchase weather service specific to Castle Pines to provide real-time data to increase warning capacity for high-hazard events.								
Estimated Cost:	TBD								
Potential Funding Sources:	General funds								
Implementation Timeline:	Short-term (1-2 years)								
Goals Met:	1, 2, 3, 7								
Benefits:	Providing increased warning time is likely to increase chances of survival during an emergency event. Residences and businesses are more likely to perform protective actions with the knowledge that they will receive accurate and timely warning of an emergency.								
Impact on Future Development:	Access to real-time, localized weather data can inform safer site planning and design, especially in areas prone to severe weather, enhancing resilience in future developments.								
Impact on Critical Facilities/Lifelines:	Enhanced weather monitoring will support timely protective actions for critical facilities and lifelines, reducing service disruptions during extreme weather events.								
Impact on Capabilities:	The City's emergency management and public safety capabilities will be strengthened through better situational awareness and faster response times enabled by real-time data.								
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☒ Education and Awareness Programs (EAP)							
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)							
Priority:	☒ High	☐ Medium	☐ Low						
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Utilize state warning systems</td><td>Not always reliable or accessible for local areas.</td></tr> <tr> <td>Utilize federal warning systems</td><td>Not always reliable or accessible for local areas.</td></tr> </tbody> </table>	No Action	Current problem exists	Utilize state warning systems	Not always reliable or accessible for local areas.	Utilize federal warning systems	Not always reliable or accessible for local areas.		
No Action	Current problem exists								
Utilize state warning systems	Not always reliable or accessible for local areas.								
Utilize federal warning systems	Not always reliable or accessible for local areas.								

Action 2026-Castle Pines-04. Update City-Wide Emergency Management Plan

Lead Agency:	City of Castle Pines								
Supporting Agencies:	OEM								
Hazard(s) of Concern:	☒ Dam Failure ☒ Drought ☒ Earthquake ☒ Flood ☒ Geologic Hazards	☒ Hazardous Materials ☒ Pandemic ☒ Severe Weather ☒ Wildfire							
Description of the Problem:	The City does not have an up-to-date Emergency Management Plan or training in place for staff.								
Description of the Solution:	Work with OEM to update our Emergency Management Plan and develop training for staff								
Estimated Cost:	Low; staff time								
Potential Funding Sources:	General funds								
Implementation Timeline:	Short-term; ongoing updates								
Goals Met:	2, 4, 5, 6, 7								
Benefits:	The Emergency Management Plan details what the City will do during an emergency. Updating the EMP will permit the City to integrate new plans, policies, capabilities, and hazard assessments.								
Impact on Future Development:	A current Emergency Management Plan strengthens municipal resilience, supporting safe and sustainable future development by ensuring operational continuity during emergencies.								
Impact on Critical Facilities/Lifelines:	An updated plan prioritizes protection and continuity for critical facilities, minimizing downtime and safeguarding essential infrastructure during hazard events.								
Impact on Capabilities:	Collaborating with OEM to update the plan and train staff enhances the city's emergency preparedness and response capabilities, ensuring coordinated and efficient actions during crises.								
Mitigation Category:	☒ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)							
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)							
Priority:	☒ High	☐ Medium	☐ Low						
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th> <th>Current problem exists</th> </tr> </thead> <tbody> <tr> <td>Utilize previous Emergency Management Plan</td> <td>Is outdated and does not provide the most accurate information today.</td> </tr> <tr> <td>Rely on state Emergency Management Plan</td> <td>May not be locally pertinent information or procedures for the City.</td> </tr> </tbody> </table>	No Action	Current problem exists	Utilize previous Emergency Management Plan	Is outdated and does not provide the most accurate information today.	Rely on state Emergency Management Plan	May not be locally pertinent information or procedures for the City.		
No Action	Current problem exists								
Utilize previous Emergency Management Plan	Is outdated and does not provide the most accurate information today.								
Rely on state Emergency Management Plan	May not be locally pertinent information or procedures for the City.								

Action 2026-Castle Pines-05. Develop a COOP

Lead Agency:	City of Castle Pines								
Supporting Agencies:	OEM, County								
Hazard(s) of Concern:	☒ Dam Failure ☒ Drought ☒ Earthquake ☒ Flood ☒ Geologic Hazards	☒ Hazardous Materials ☒ Pandemic ☒ Severe Weather ☒ Wildfire							
Description of the Problem:	The City does not have an adopted Continuity of Operations Plan (COOP) in place.								
Description of the Solution:	Work with OEM and County to develop COOP Plan for the City								
Estimated Cost:	Low; staff time								
Potential Funding Sources:	General funds								
Implementation Timeline:	Short-term; ongoing updates								
Goals Met:	2, 4, 5, 6, 7								
Benefits:	The Continuity of Operations Plan (COOP) will ensure that essential functions of the City continue during and after a disruption caused by emergencies, whether manmade, natural, or technological.								
Impact on Future Development:	An adopted COOP plan strengthens municipal resilience, supporting sustainable growth and future development by ensuring operational stability during disruptions.								
Impact on Critical Facilities/Lifelines:	The COOP plan prioritizes continuity for critical facilities, minimizing downtime and safeguarding essential infrastructure during hazard events.								
Impact on Capabilities:	Collaborating with OEM and County to create a COOP plan enhances the city's emergency preparedness and response capabilities, ensuring coordinated and efficient recovery efforts.								
Mitigation Category:	☒ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)							
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)							
Priority:	☒ High	☐ Medium	☐ Low						
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Rely on federal procedures</td><td>May not be locally pertinent information or procedures for the City.</td></tr> <tr> <td>Rely on state procedures</td><td>May not be locally pertinent information or procedures for the City.</td></tr> </tbody> </table>	No Action	Current problem exists	Rely on federal procedures	May not be locally pertinent information or procedures for the City.	Rely on state procedures	May not be locally pertinent information or procedures for the City.		
No Action	Current problem exists								
Rely on federal procedures	May not be locally pertinent information or procedures for the City.								
Rely on state procedures	May not be locally pertinent information or procedures for the City.								

Action 2026-Castle Pines-06. Wildfire Education

Lead Agency:	City of Castle Pines		
Supporting Agencies:	South Metro Fire, County		
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☐ Flood ☐ Geologic Hazards	☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☒ Wildfire	
Description of the Problem:	City residents and business owners need better awareness for and accurate information on wildfire risk and safety measures.		
Description of the Solution:	Working with the County and South Metro Fire to create educational videos around fire safety.		
Estimated Cost:	Low; staff time		
Potential Funding Sources:	General funds		
Implementation Timeline:	Short-term (1-2 years)		
Goals Met:	3, 6		
Benefits:	This action will improve the public education and outreach capabilities in the City by including discussions on disaster preparedness and hazard mitigation to residents and business owners, which will contribute to the resiliency of the City.		
Impact on Future Development:	Improved public awareness of wildfire risk supports safer community planning and development, reducing vulnerability in high-risk areas.		
Impact on Critical Facilities/Lifelines:	Educating residents on fire safety helps prevent behaviors that could endanger critical infrastructure, reducing the likelihood of damage during wildfire incidents.		
Impact on Capabilities:	Collaborating with the County and South Metro Fire enhances the city's outreach and communication capabilities, ensuring consistent and effective wildfire risk messaging.		
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☒ Education and Awareness Programs (EAP)	
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☒ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)	
Priority:	☒ High	☐ Medium	☐ Low
Alternatives:	No Action Rely on federal resources Rely on state resources	Current problem exists May not be locally pertinent information for residents. May not be locally pertinent information for residents.	

Action 2026-Castle Pines-07. Training for Staff on Emergency Management

Lead Agency:	City of Castle Pines								
Supporting Agencies:	OEM								
Hazard(s) of Concern:	☒ Dam Failure ☒ Drought ☒ Earthquake ☒ Flood ☒ Geologic Hazards	☒ Hazardous Materials ☒ Pandemic ☒ Severe Weather ☒ Wildfire							
Description of the Problem:	City staff need additional training on emergency management response and procedures in the event of a hazard occurrence.								
Description of the Solution:	Work with OEM to train staff on Emergency Management Response.								
Estimated Cost:	Low; staff time								
Potential Funding Sources:	General funds								
Implementation Timeline:	Short-term (1-2 years); ongoing updates								
Goals Met:	4, 6, 7								
Benefits:	This action will increase the preparedness and response capabilities of City staff, ensuring staff is knowledgeable in the steps to take in the event of an emergency.								
Impact on Future Development:	Building staff expertise in hazard response strengthens municipal resilience, supporting safe and sustainable future development.								
Impact on Critical Facilities/Lifelines:	Well-trained personnel improve the protection and continuity of critical facilities during emergencies, minimizing operational disruptions.								
Impact on Capabilities:	Collaborating with OEM to provide training enhances the city's emergency preparedness and response capabilities, ensuring coordinated and efficient actions during hazard events.								
Mitigation Category:	☒ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)							
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)							
Priority:	☒ High	☐ Medium	☐ Low						
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Rely on federal training</td><td>May not be locally pertinent information for staff. Most of the time these courses cost money.</td></tr> <tr> <td>Rely on state training</td><td>May not be locally pertinent information for staff. Most of the time these courses cost money.</td></tr> </tbody> </table>	No Action	Current problem exists	Rely on federal training	May not be locally pertinent information for staff. Most of the time these courses cost money.	Rely on state training	May not be locally pertinent information for staff. Most of the time these courses cost money.		
No Action	Current problem exists								
Rely on federal training	May not be locally pertinent information for staff. Most of the time these courses cost money.								
Rely on state training	May not be locally pertinent information for staff. Most of the time these courses cost money.								

Action 2026-Castle Pines-08. Critical Facility Protection

Lead Agency:	Critical Facility Owners and Managers								
Supporting Agencies:	City Council								
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☒ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☐ Wildfire								
Description of the Problem:	Critical facilities need to be protected to the 500-year flood level. The Newlin Lift station facility is located in the flood hazard area.								
Description of the Solution:	The City will notify the critical facility owners and managers of the facility's location in the flood hazard area. The City will encourage each facility to conduct a feasibility assessment to determine what additional floodproofing measures are needed at the critical facilities to protect them to the 500-year flood level. Options include: - Elevation of facility - Floodproofing of facility - Mobile flood barriers Once the most cost-effective option is identified, the facility owner or manager will carry out the option.								
Estimated Cost:	Medium								
Potential Funding Sources:	FEMA HMA, USDA Community Facilities Grant Program, City Budget								
Implementation Timeline:	Within 5 Years								
Goals Met:	1, 3, 5								
Benefits:	Ensures continuity of operations of several critical facilities in the City.								
Impact on Future Development:	The risk of significant damage occurring to the structure will be reduced, which will allow critical operations to be maintained or only briefly interrupted in severe events. This provides continued support to both current and future development in the service area.								
Impact on Critical Facilities/Lifelines:	This action will protect critical facilities, maintaining the critical services that it provides.								
Impact on Capabilities:	This action improves continuity of operations during a flood event, allows for a more rapid return to pre-disaster capabilities after a flood event, and faster deployment of post disaster capabilities.								
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☒ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)								
CRS Category:	☐ Preventative Measures (PR) ☒ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)								
Priority:	☒ High ☐ Medium ☐ Low								
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Relocate facility</td><td>Relocation is expensive and results in loss or delay of critical services in the immediate area</td></tr> <tr> <td>Establish plans to enter into MOU with neighboring critical facilities to provide service during flood events</td><td>Reduction in response times and delay of critical services in the immediate area.</td></tr> </tbody> </table>			No Action	Current problem exists	Relocate facility	Relocation is expensive and results in loss or delay of critical services in the immediate area	Establish plans to enter into MOU with neighboring critical facilities to provide service during flood events	Reduction in response times and delay of critical services in the immediate area.
No Action	Current problem exists								
Relocate facility	Relocation is expensive and results in loss or delay of critical services in the immediate area								
Establish plans to enter into MOU with neighboring critical facilities to provide service during flood events	Reduction in response times and delay of critical services in the immediate area.								

Action 2026-Castle Pines-09. Consider Joining the NFIP

Lead Agency:	Public Works								
Supporting Agencies:	City Council								
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☒ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☐ Wildfire								
Description of the Problem:	Though the City has minimal flood risks, concerns with localized areas of flooding may rise due to more intense precipitation events. Joining the National Flood Insurance Program would permit the City to incorporate best practices to better protect the City, its residents, and their properties from potential damage.								
Description of the Solution:	Evaluate and consider the benefit of joining and participating in the National Flood Insurance Program. Train staff to facilitate the program.								
Estimated Cost:	Low								
Potential Funding Sources:	City Budget								
Implementation Timeline:	Within 5 years								
Goals Met:	4, 5								
Benefits:	This action will increase the NFIP capabilities of the City and ensure the City's NFIP program has enough staff to accomplish its goals and reach NFIP compliance.								
Impact on Future Development:	Officials that understand best practices in floodplain management will have the opportunity to influence future development and prevent unsafe building in flood hazard areas.								
Impact on Critical Facilities/Lifelines:	The opportunity will exist for leaders and operators of utilities and other essential services to attend training and provide direction on ways they prepare for, plan for, and prevent interruptions in service as a result of a flood.								
Impact on Capabilities:	This action will create a new capability for the City.								
Mitigation Category:	☒ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)								
CRS Category:	☒ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)								
Priority:	☐ High ☒ Medium ☐ Low								
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Hire outside contractors for floodplain administration</td><td>Costly</td></tr> <tr> <td>Establish shared service agreements for floodplain administration from neighboring municipalities</td><td>Neighboring municipalities are unlikely to have the staff capacity to take on this role</td></tr> </tbody> </table>			No Action	Current problem exists	Hire outside contractors for floodplain administration	Costly	Establish shared service agreements for floodplain administration from neighboring municipalities	Neighboring municipalities are unlikely to have the staff capacity to take on this role
No Action	Current problem exists								
Hire outside contractors for floodplain administration	Costly								
Establish shared service agreements for floodplain administration from neighboring municipalities	Neighboring municipalities are unlikely to have the staff capacity to take on this role								

Action 2026-Castle Pines-10. Dam Owner Partnership

Lead Agency:	Public Works								
Supporting Agencies:	County, Dam Owner								
Hazard(s) of Concern:	☒ Dam Failure ☐ Drought ☐ Earthquake ☒ Flood ☐ Geologic Hazards	☐ Hazardous Materials ☐ Pandemic ☒ Severe Weather ☐ Wildfire							
Description of the Problem:	Although dam risk is low, there may be the potential for impacts on the Lemon Gulch as a result of the flood waters should the Lemon Gulch Dam, a low-hazard dam, have a failure.								
Description of the Solution:	The City will work with the County and owners of the dams to ensure inspections and safety procedures are up to date. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Dam Owner will pursue funding support, permit approval from the State, and implement the cost-effective measures.								
Estimated Cost:	Low								
Potential Funding Sources:	City Budget								
Implementation Timeline:	Within 5 years								
Goals Met:	4, 6, 8								
Benefits:	This action will improve the safety and security of those who live near the dams and increase the resilience of responding agencies.								
Impact on Future Development:	Future development near the dams will be more secure as safety procedures and inspections are regularly performed on the dams.								
Impact on Critical Facilities/Lifelines:	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.								
Impact on Capabilities:	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.								
Mitigation Category:	☒ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)							
CRS Category:	☒ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)							
Priority:	☒ High	☐ Medium	☐ Low						
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Utilize information from DWR</td><td>Owners may not be required to submit a safety plan to the State</td></tr> <tr> <td>Utilize information from the National Inventory of Dams</td><td>Not all dams are listed on the inventory</td></tr> </tbody> </table>	No Action	Current problem exists	Utilize information from DWR	Owners may not be required to submit a safety plan to the State	Utilize information from the National Inventory of Dams	Not all dams are listed on the inventory		
No Action	Current problem exists								
Utilize information from DWR	Owners may not be required to submit a safety plan to the State								
Utilize information from the National Inventory of Dams	Not all dams are listed on the inventory								

Action 2026-Castle Pines-11. Hazardous Materials Transport

Lead Agency:	Public Works		
Supporting Agencies:	County, Colorado DOT		
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☐ Flood ☐ Geologic Hazards ☒ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☐ Wildfire		
Description of the Problem:	Hazardous waste can be transported on I-25, leading to a risk of a spill if there is an accident or issue with transport.		
Description of the Solution:	Partner with the County and Colorado DOT to ensure permitting procedures and inspections are performed regularly to ensure the risk for a hazardous materials incident is minimal along I-25.		
Estimated Cost:	Low		
Potential Funding Sources:	City Budget		
Implementation Timeline:	Within 5 years		
Goals Met:	4, 6		
Benefits:	By partnering with outside agencies who have legal jurisdiction, the City will be able to communicate its concern of hazardous materials being transported appropriately. Ensuring vehicles have the correct permits for the materials being transported and are being inspected to check the proper storage of the materials provides assurance that risk reduction measures are being adhered to.		
Impact on Future Development:	Future development along I-25 will have lower risk to exposure from a hazardous materials incident.		
Impact on Critical Facilities/Lifelines:	Preventing or reducing the risk of a hazardous materials incident on I-25 will ensure the transportation lifeline in the City is minimally impacted. Further, the safety and security lifeline will be able to prioritize other needs.		
Impact on Capabilities:	This action will strengthen the City's capability to work with outside agencies.		
Mitigation Category:	☒ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)		
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)		
Priority:	☒ High	☐ Medium	☐ Low
Alternatives:	No Action The City will inspect vehicles Redirect vehicles transporting hazardous materials to other roadways	Current problem exists Not in the City's legal jurisdiction Not in the City's legal jurisdiction	

4. TOWN OF CASTLE ROCK

This jurisdictional annex to the Douglas County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Town of Castle Rock with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Castle Rock, describes who participated in the planning process, assesses Castle Rock's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

4.1 HAZARD MITIGATION PLANNING TEAM

The Town of Castle Rock identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Town departments. The Fire Chief / Emergency Manager represented the community on the Douglas County HMP Local Planning Committee and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 4-1 summarizes Town officials who participated in the development of the annex and in what capacity. Additional documentation of the Town's planning activities through Local Planning Committee meetings is included in Volume I.

Table 4-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Norris Croom, Fire Chief and Emergency Manager Address: 300 Perry St., Castle Rock, CO 80104 Phone Number: 303-435-1558 Email: NCroom@crgov.com	Name/Title: Oren Bersagel-Briese, Deputy Chief Address: 300 Perry St., Castle Rock, CO 80104 Phone Number: 303-435-0612 Email: obriese@crgov.com
National Flood Insurance Program Floodplain Administrator	
Name/Title: David Van Dellen, Castle Rock Water Address: 175 Kellogg Court, Building 171, Castle Rock, CO 80109 Phone Number: 720-733-2474 Email: DVanDellen@crgov.com	
Additional Contributors	
Name/Title: Mark Billman, EHS Program Manager Method of Participation: Provided information on collected worksheets.	
Name/Title: Norris Croom, Fire Chief and Emergency Manager Method of Participation: Provided information on collected worksheets; attended meetings.	

4.2 COMMUNITY PROFILE

4.2.1 Location

The Town of Castle Rock's physical setting gives it a natural shape and identity. Steeply sloping terrain, buttes and ridgelines surround the Town, rising 300 to 800 feet above the 6,200-foot average elevation. Creeks and gulches meander through the many drainage basins and ponderosa pine and scrub oak cover the landscape. Panoramic views of the Rocky Mountains extend from Pike's Peak in the south to Long's Peak to the north.

The current boundaries generally extend from Castle Rock Parkway, south to Dawson Ridge and from the Meadows, east to Cobblestone Ranch, encompassing an area of 34.2 square miles.

4.2.2 History

The Town of Castle Rock was incorporated in 1881, after having been selected the County seat seven years earlier. Much of the early Town was built on the availability of rail transportation and the presence of the quarries that the railroads served. Settlers, attracted by the Homestead Act of 1862, joined gold prospectors, quarry, sawmill and railroad workers and ranchers in building the new community. The Town's population initially grew slowly and steadily after its founding, topping 300 in 1900, and reaching 478 in 1930. By 1940, the Town added another 100 residents.

From 1950 to 1960, the Town grew by over 400 residents, from 741 to 1,154 persons. By the time the 1970 Census was conducted, Castle Rock's population reached 2,078 persons. This was just under 25 percent of the County's total population of 8,407.

The Denver area's rapid sub-urbanization in the 1970's strongly affected the Town as new, urban density developments were approved and began to develop. From 1970 to 1980, Castle Rock added 1,843 new residents, an increase of 88 percent to 3,921 persons. During this decade, the Town population dropped to 16 percent of the County's total of 25,153. During the 1980's, the Town's population grew at a much faster rate. At the end of 1989, the population of the Town was estimated at 8,875, an increase of 126 percent from 1980. Castle Rock's population has steadily increased since 1990, growing by nearly ten times since that decade from 8,612 to 87,612 persons today.

4.2.3 Governing Body

Castle Rock is governed by the Town Council, which includes seven elected officials: six Council Members, who each represent an election district, and the Mayor, who is elected at large. Among its duties, the Town council adopts ordinances to become local law and approves the budget, financial plans, land-use decisions, and the Town's Comprehensive and Master Plans.

Development of this annex was carried out by the members of the local mitigation planning team, whose members are listed in Table 4-1.

4.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

Castle Rock performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day local government operations. As part of the hazard mitigation analysis, planning and policy documents were reviewed and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. Development of an updated mitigation strategy provided an opportunity for Castle Rock to identify opportunities for integrating mitigation concepts into ongoing Town procedures.

4.3.1 Planning and Regulatory Capability and Integration

Table 4-2 summarizes the planning and regulatory tools that are available to Castle Rock.

Table 4-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
CODES, ORDINANCES, & REGULATIONS				
Building Code	Yes	Chapter 15, Article II Building and Construction, 2019	State and Local	Town Administration
How has or will this be integrated with the HMP and how does this reduce risk? The Town adopts by reference the following code: International Building Code, 2018 Edition (appendices to the International Building Code are only adopted to the extent specified by the user and with Chief Building Official approval), for regulating and governing conditions and maintenance of all property, buildings and structures; by providing the standards for supplied utilities and facilities and other physical things and conditions essential to ensure the structures are safe, sanitary and fit for occupation and use; and the condemnation of buildings and structures unfit for human occupancy and use and the demolition of such structures, as hereafter set out (published by the International Code Council, Inc., 4051 West Flossmoor Road, Country Club Hills, IL 60478-5795).				
Zoning/Land Use Code	Yes	Chapter 17, Zoning, 2019	Local	Town Administration
How has or will this be integrated with the HMP and how does this reduce risk? Establish minimum setback and allowed zoning use for residential and commercial new and remodel permits.				
Subdivision Code	Yes	Chapter 16, Subdivision Regulations, 2012	Local	Town Administration
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency

These regulations are adopted to protect and to provide for the public health, safety and welfare of present and future residents of the Town and to guide the future growth and development of the Town.

Site Plan Code	Yes	Chapter 17.12 Sketch Plan, 2012	Local and County	Town Administration

How has or will this be integrated with the HMP and how does this reduce risk?

The sketch plan is an optional part of the development process and is intended to present a conceptual vision of the development. The sketch plan depicts in a preliminary manner the proposed uses and densities on the property and may include design aspirations, open space analysis, major planned roadways, and other prominent features. The sketch plan provides an opportunity for residents, the Director, Planning Commission, and Town Council to give an applicant preliminary feedback on a proposed development project without formal action by the Town.

Stormwater Management Code	Yes	Chapter 4.03, Illicit Discharge and Connection, 2012	Local	Town Administration

How has or will this be integrated with the HMP and how does this reduce risk?

The purpose of this Chapter is to provide for the health, safety and general welfare of the citizens of the Town through the regulation of non-stormwater discharges to the storm drainage system to the maximum extent practicable as required by federal and state law. This Chapter establishes methods for controlling the introduction of pollutants into the municipal separate storm sewer system (MS4) in order to comply with requirements of the National Pollutant Discharge Elimination System (NPDES) permit process. The objectives of this Chapter are:

- To regulate the contribution of pollutants to the MS4 by stormwater discharges by any user;
- To prohibit illicit connections and discharges to the MS4;
- To establish legal authority to carry out all inspection, surveillance, monitoring and enforcement procedures necessary to ensure compliance with this Chapter.

Post-Disaster Recovery/ Reconstruction Code	No	-	-	-

How has or will this be integrated with the HMP and how does this reduce risk?

Real Estate Disclosure Requirements	Yes	C.R.S. 38-35.7-102	State	Sellers and Landlords of commercial or residential property

How has or will this be integrated with the HMP and how does this reduce risk?

In Colorado, real estate transactions involving properties located in flood zones are subject to specific disclosure requirements. Sellers must disclose any known flood damage to the property, which includes past flooding experiences, the presence of a floodplain, and whether the property is covered by flood insurance. Failure to disclose this information can lead to legal repercussions, including claims of misrepresentation or fraud. Sellers are required to provide buyers with access to the current Flood Insurance Rate Map (FIRM) and any related documentation that outlines the specific flood risk associated with the property. This transparency is crucial for buyers to make informed decisions and understand their liabilities regarding flood insurance and the potential for future flooding events.

Growth Management	No	-	-	-

How has or will this be integrated with the HMP and how does this reduce risk?

Environmental Protection Ordinance(s)	Yes	Chapter 4.02 Castle Rock Watershed Protection District, 1993	Local	Castle Rock Watershed Protection District

How has or will this be integrated with the HMP and how does this reduce risk?

The Town, pursuant to the authority granted in Section 31-15-707(1)(b), C.R.S., and its home rule powers, creates the Castle Rock Watershed Protection District in order to maintain the Town's waterworks and water supply from injury, pollution or other activities that may degrade the water quality or create a danger of pollution.

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Flood Damage Prevention Ordinance	Yes	Chapter 18, Floodplain Regulations, 2013	Federal, State, County and Local	Floodplain Administrator
How has or will this be integrated with the HMP and how does this reduce risk? It is the purpose of this Title to promote public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to: • Protect human life and health; • Minimize expenditure of public money for costly flood control projects; • Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public; • Minimize prolonged business interruptions; • Minimize damage to critical facilities, infrastructure and other public facilities such as water, sewer and gas mains; electric and communications stations; and streets and bridges located in floodplains; • Protect the storage capacity of floodplains and assure retention of sufficient floodway area to convey flood flows which can be reasonably expected to occur; • Protect the hydraulic characteristics of small watercourses, including the gulches, sloughs and artificial water channels used for conveying floodwaters, which make up a portion of the urban drainage system; • Help maintain a stable tax base by providing for sound use and development of flood-prone areas in such a manner as to minimize future flood blight areas; and • Ensure that potential buyers are notified that property is located in a flood hazard area so as to protect individuals from purchasing floodplain lands for unsuitable purposes.				
Wellhead Protection	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Emergency Management Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Change Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
PLANNING DOCUMENTS				
General/Comprehensive Plan	Yes	2030 Comprehensive Master Plan	Local	Town Administration
How has or will this be integrated with the HMP and how does this reduce risk? This plan was adopted in 2017 and provides an overview and plan for the built environment in the Town to enhance its natural environment. The plan also identifies building blocks of the community using four cornerstones: Distinct Town Identity, Responsible Growth, Community Services and Thriving Economy. Each of the cornerstones provides guidance to the community and its decision-makers.				
Capital Improvement Plan	Yes	2025-2029 Balanced Financial Plan	Local	Town Council
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
This CIP is updated annually and approved by the Town Council as part of the annual budget process. Capital improvement project proposals may take into consideration hazard mitigation potential as a means of evaluating project prioritization.				
Disaster Debris Management Plan	Yes	Douglas County Debris Management Plan	County	DC OEM
How has or will this be integrated with the HMP and how does this reduce risk? The Douglas County Debris Management Plan, most recently updated in 2022, outlines the county's strategy for managing debris following disasters. It establishes roles, responsibilities, and operational procedures for efficient debris removal and recovery, ensuring public safety and environmental protection.				
Floodplain Management or Watershed Plan	Yes	Stormwater Master Plan Update: Resolution 2017-098	Local	Castle Rock Water
How has or will this be integrated with the HMP and how does this reduce risk? Minimize risk based on overall floodplain management and assessment.				
Stormwater Management Plan	Yes	Storm Water Master Plan 2017-098	Local	Castle Rock Water
How has or will this be integrated with the HMP and how does this reduce risk? This document provides a five-year planning window for stormwater management practices and capital improvements within the Town of Castle Rock. Flood mapping, stormwater quality, maintenance and drainageway master planning efforts. Stormwater management is funded through the stormwater enterprise fund including development impact fees and monthly service charges.				
Open Space Plan	Yes	Town of Castle Rock Parks and Recreation Master Plan	Local	Parks and Rec
How has or will this be integrated with the HMP and how does this reduce risk? Limited impact at this time.				
Urban Water Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Habitat Conservation Plan	Yes	Douglas County Habitat Conservation Plan	County	Douglas County
How has or will this be integrated with the HMP and how does this reduce risk? Limited impact at this time.				
Economic Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Wildfire Protection Plan	Yes	Community Wildfire Protection Plan, 2022	Local	Castle Rock Fire and Rescue Department
How has or will this be integrated with the HMP and how does this reduce risk? The Town adopted a Community Wildfire Protection Plan (CWPP) in January 2022 and has mitigated over 360 acres in areas identified as Very High risk to reduce the potential for wildland fire.				
Community Forest Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Transportation Plan	Yes	Castle Rock Transportation Plan (TMP), 2024	Local	Town Council
How has or will this be integrated with the HMP and how does this reduce risk? This plan, updated in 2024, revises the roadway element of the 2017 Castle Rock Transportation Master Plan (TMP). Given the continued development and changes in travel demand that have occurred and are continuing to occur in Castle Rock and surrounding areas, this plan helps the Town plan, prioritize, and obtain funding for needed roadway improvements. The plan identifies priorities to aid the Town in developing the annual Capital Improvement Program (CIP). There are three primary goals of the TMP, which aim to ensure that there is roadway capacity and mobility with the projected full buildout of the Town: • Maintain adequate capacity along existing transportation corridors • Ensure efficient road network connections for future development • Fill existing network gaps with new road facilities The TMP is integrated into the HMP as a critical component of the community's resilience strategy. By guiding transportation investments that maintain reliable evacuation routes, improve redundancy in the road network, and reduce bottlenecks, the TMP directly supports risk reduction for hazards such as wildfires, floods, and severe weather events. Improvements identified in the TMP, such as strategic capacity expansions, safer intersections, and alternative connections, enhance the Town's ability to respond to emergencies, maintain access for first responders, and protect residents during both short-term incidents and long-term hazard conditions. This integration ensures that transportation planning not only meets mobility needs but also strengthens public safety and hazard preparedness.				
Agriculture Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Action/ Resilience/Sustainability Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Tourism Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Business/ Downtown Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
RESPONSE/RECOVERY PLANNING				
Emergency Operations Plan	Yes	Emergency Operations Plan (2024-056)	Local	Castle Rock Fire and Rescue Department
How has or will this be integrated with the HMP and how does this reduce risk? Castle Rock Fire and Rescue Department is the Emergency Management Agency for the Town of Castle Rock and follows the 2024 adoption of the Emergency Operations Plan (2024-056). The EOP addresses response considerations for any significant incidents.				
Continuity of Operations Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Substantial Damage Response Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Threat and Hazard Identification and Risk Assessment How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Post-Disaster Recovery Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Public Health Plan How has or will this be integrated with the HMP and how does this reduce risk? The Douglas County Public Health Improvement Plan, most recently updated for 2021-2026, outlines strategies to address priority health needs identified through a comprehensive Community Health Assessment. It emphasizes improving access to care, addressing health disparities, and enhancing public health infrastructure to better serve residents.	Yes	Douglas County Public Health Improvement Plan	County	Douglas County Tri-County Health Department
Other How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-

4.3.2 Development and Permitting Capability

Table 4-3 summarizes the capabilities of Castle Rock to oversee and track development.

Table 4-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits?	Yes	-
- If you issue development permits, what department is responsible? - If you do not issue development permits, what is your process for tracking new development?	-	Development Services
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	Floodplain
Do you have a buildable land inventory? If you have a buildable land inventory, please describe	Yes	Managed by Development Services
Describe the level of buildout in your jurisdiction.	N/A	There is land available for future buildout in the Town. The Comprehensive Master Plan includes a Future Land Use Plan identifying the proper land use for areas of the Town.

4.3.3 Administrative and Technical Capability

Table 4-4 summarizes potential staff and personnel resources available to Castle Rock and their current responsibilities that contribute to hazard mitigation.

Table 4-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
ADMINISTRATIVE CAPABILITY		
Planning Board	No	-
Zoning Board of Adjustment	Yes	The Zoning Division is responsible for providing the public with information on municipal zoning codes, zoning compliance, sign permits, accessory dwelling units and the processing of Board of Adjustment cases. The division also oversees a wide variety of compliance issues such as weed abatement, temporary sign placement, snow clearing from sidewalks, construction noise, and much more. In addition, the Zoning manager reviews liquor, business, ATF and daycare licenses for conformance with the Town's municipal codes.
Planning Department	Yes	The Planning Division is responsible for creating long-range strategies for Town growth while preserving Castle Rock's unique identity, history and small-town character. The division oversees pre-application meetings, residential entitlements, design awards, neighborhood meetings and public hearings, historic preservation, annexations, and all land development applications.
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	Yes	The Finance Department will provide financial solutions and services in support of the Town's vision and community objectives through proactive education, purposeful planning, excellent communication and fiscal accountability
Public Works/Highway Department	Yes	Public Works plans, designs, maintains and repairs over 785 lane miles of roadway within Town, providing a broad range of services to ensure the transportation system can keep pace with our growth.
Construction/Building/Code Enforcement Department	Yes	The department protects the Town's Vision for growth and ensures every building project meets quality-of-life standards. With the 2030 Vision and Comprehensive Master Plan and building codes as a guide, The Development Services department reviews, approves and inspects each building project in Castle Rock. The department also provides inspections for zoning codes to ensure all properties comply with Town ordinances.
Police Department/Public Safety Department	Yes	The members of the Castle Rock Police Department place a special emphasis on community policing as we strive to

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
		provide the highest quality law enforcement services possible.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	Public Works, Parks and Rec, and Water
Mutual aid agreements	Yes	County, Regional, and State
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	-
Other	Yes	Parks and Recreation
TECHNICAL/STAFFING CAPABILITY		
Planners or engineers with knowledge of land development and land management practices	Yes	Development Services, Development Review, And Planning, Fire Department
Engineers or professionals trained in building or infrastructure construction practices	Yes	Development Services, Building, Fire Department, Castle Rock Water, Public Works
Planners or engineers with an understanding of natural hazards	Yes	Development Services, Development Review, Planning, Castle Rock Water
Staff with expertise or training in benefit/cost analysis	Yes	Business Administrative Division, Finance Department, Town Manager Office
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazus applications	Yes	Dolt, Fire, Public Works, Water, Development Services
Staff that work with socially vulnerable populations or underserved communities	Yes	Police Department through community policing and crisis intervention teams
Environmental scientists familiar with natural hazards	No	-
Surveyors	No	-
Emergency manager	Yes	Fire and Rescue Department
Grant writers	Yes	As Needed
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	Yes	Transportation planner in the Public Works Department Full-time building code official in the Development Services Department

4.3.4 Fiscal Capability

Table 4-5 summarizes financial resources available to Castle Rock.

Table 4-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas, or electric service	Yes, Water And Sewer – the Town charges for stormwater service fees on every water account for both residential and commercial
Impact fees for homebuyers or developers of new development/homes	Yes
Stormwater utility fee	Yes
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	Yes
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	Yes
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

4.3.5 Education and Outreach Capability

Table 4-6 summarizes the education and outreach resources available to Castle Rock.

Table 4-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Town Communications Division
Personnel skilled or trained in website development	Yes	Town Communications Division
Hazard mitigation information available on your website	Yes	CWPP Information
Social media for hazard mitigation education and outreach	Yes	Castle Rock Fire and Rescue Fire, Life Safety Division, Town Communications Division
Citizen boards or commissions that address issues related to hazard mitigation	Yes	Public Safety Commission, Planning Commission, Water Commission
Warning systems for hazard events	Yes	Social Media, DougCo Alerts, iPAWs
Natural disaster/safety programs in place for schools	Yes	Douglas County School District
Organizations that conduct outreach to socially vulnerable populations and underserved populations	Yes	Castle Rock Police Department, Douglas County Sheriffs Office-
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	Castle Rock Fire and Rescue Fire, Life Safety Division, Town Communications Division

4.3.6 Community Classifications

Table 4-7 summarizes classifications for community programs available to Castle Rock.

Table 4-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	05	2024
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	2/2X	2021
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	Yes	5 communities within Town	2025
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable

4.4 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 4-1 is responsible for maintaining this information.

4.4.1 NFIP Statistics

Table 4-8 summarizes the NFIP policy and claim statistics for Castle Rock.

Table 4-8. Castle Rock NFIP Summary of Policy and Claim Statistics

Policies in Force	66
Paid Claims	6
# Repetitive Loss Properties (NFIP definition)	0
# Repetitive Loss Properties (FMA definition)	0
# Severe Repetitive Loss Properties	0

NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than \$1,000 were paid by the NFIP within any rolling 10-year period since 1978.

FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.

Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.

Source: FEMA 2025

4.4.2 Flood Vulnerability Summary

Table 4-9 provides a summary of the NFIP program in Castle Rock.

Table 4-9. NFIP Summary

NFIP Topic	Comments
Flood Vulnerability Summary	
Describe areas prone to flooding in your jurisdiction.	Castle Rock is prone to riverine flooding and is further defined as: Special Flood Hazard Area (SFHA) means the land in the floodplain within a community subject to a one-percent or greater chance of flooding in any given year, i.e., the 100-year floodplain. This generally applies to flood-prone areas having an upstream watershed area greater than 130 acres.
Do you maintain a list of properties that have been damaged by flooding?	Yes, this information is stored in the CRW TRAKiT database.
Do you maintain a list of property owners interested in flood mitigation?	No, this need has not arisen within our community.
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	None at this time.
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	No, not at this time.
How do you make Substantial Damage determinations?	Follow FEMA guidelines for Substantial Damage determinations, including the use of the Substantial Damage Estimator Tool.
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	No Substantial Damage determinations have been declared in recent history within our community.
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	None, at this time.
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Yes, the flood maps adequately address flood risk within the Town.
NFIP Compliance	
What local department is responsible for floodplain management?	Castle Rock Water is responsible for floodplain management within the Town.
Are any certified floodplain managers on staff in your jurisdiction?	Yes, there are certified floodplain managers at the Town.
Do you have access to resources to determine possible future flooding conditions from climate change?	No studies on climate change have commenced at this time.
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	No, not at this time.
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	Permit review, mapping, technical assistance on flood risk determinations for insurance purposes.

NFIP Topic	Comments
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	Compare the value of improvements based on cost estimate under the building permit to the assessed value of the structure.
What are the barriers to running an effective NFIP program in the community, if any?	None at this time.
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	The Town is in good standing with the NFIP.
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	CAV: October 24, 2022 CAC: March 21, 2016
What is the local law number or municipal code of your flood damage prevention ordinance?	Town of Castle Rock Municipal Code Title 18 – Floodplain Regulations
What is the date that your flood damage prevention ordinance was last amended?	February 2, 2016
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	Exceeds with a Two-Foot Freeboard Requirement
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	The Town of Castle Rock Storm Drainage Design and Technical Criteria Manual provides consistent requirements to the Title 18 Rule with regard to new development and redevelopment within our community.
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	No, not at this time.

4.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 4-10 through Table 4-12.

Table 4-10. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
2020				
Total Permits	946	4	2	952
Permits within SFHA	0	0	0	0
2021				
Total Permits	1,024	25	0	1,049
Permits within SFHA	0	0	0	0
2022				
Total Permits	594	131	2	727

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
Permits within SFHA	0	0	0	0
2023				
Total Permits	399	46	1	446
Permits within SFHA	0	0	0	0
2024				
Total Permits	363	10	1	374
Permits within SFHA	0	0	0	0

SFHA = Special Flood Hazard Area (1% flood event)

Table 4-11. Recent Major Development and Infrastructure from 2020 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones	Description / Status of Development
The View	Mixed Use	200 apartments	619 Jerry Street	None	Completed November 2025
Riverwalk	Mixed Use	150 apartments	Wilcox Street	Flood	Completed and occupied

Table 4-12. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones	Description / Status of Development
Dawson Trails	Mixed Use	5850 residential units 3 million sq ft commercial	SW portion of Town on west side of I25	Wildfire	Construction has started on commercial area; residential expected to begin in 2026
Brickyard	Mixed Use	200 residential apartments 500,000 commercial	Prairie Hawk Drive	Hazardous Materials, Wildfire	Construction began in 2025
Bella Mesa North	Residential	525	northeast of Mitchell Street and Mickelson Boulevard	Hazardous Materials, Geologic Hazards, Wildfire	Anticipated - No Approval To Date
Canyons Far South	Residential	474	southeast of the intersection of Crowfoot Valley	Hazardous Materials, Wildfire	Approved by Board Committee

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones	Description / Status of Development
			Road and Founders Parkway		
Chateau Valley	Residential	297	Ash Avenue and S. Valley Drive	Hazardous Materials, Wildfire	Approved by Board Committee

4.6 JURISDICTIONAL RISK ASSESSMENT

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Castle Rock's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

4.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Town are shown in Figure 4-1 through Figure 4-2. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Castle Rock has significant exposure. The maps show the location of potential new development, where available.

Figure 4-1. Castle Rock Hazard Area Extent and Location Map 1

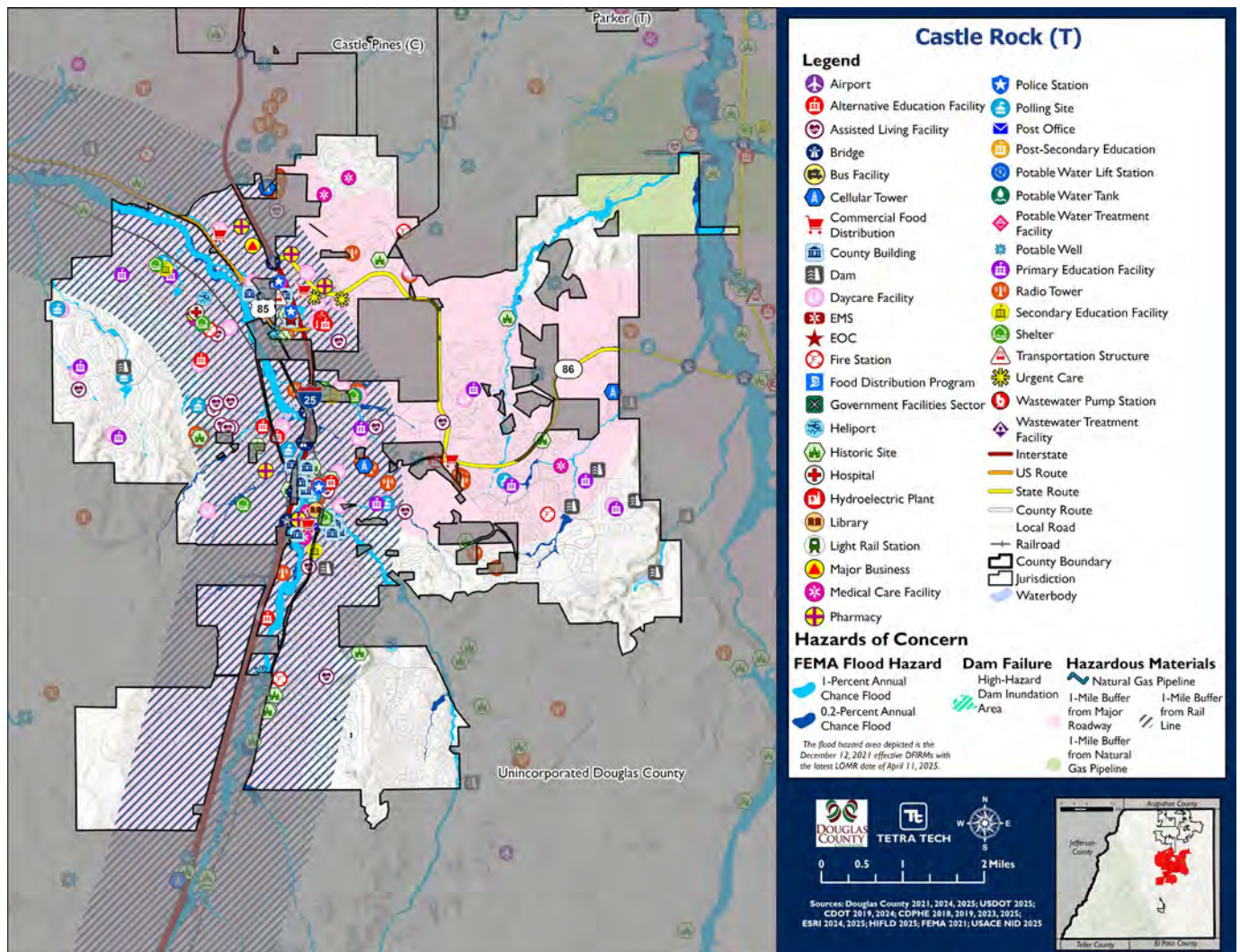
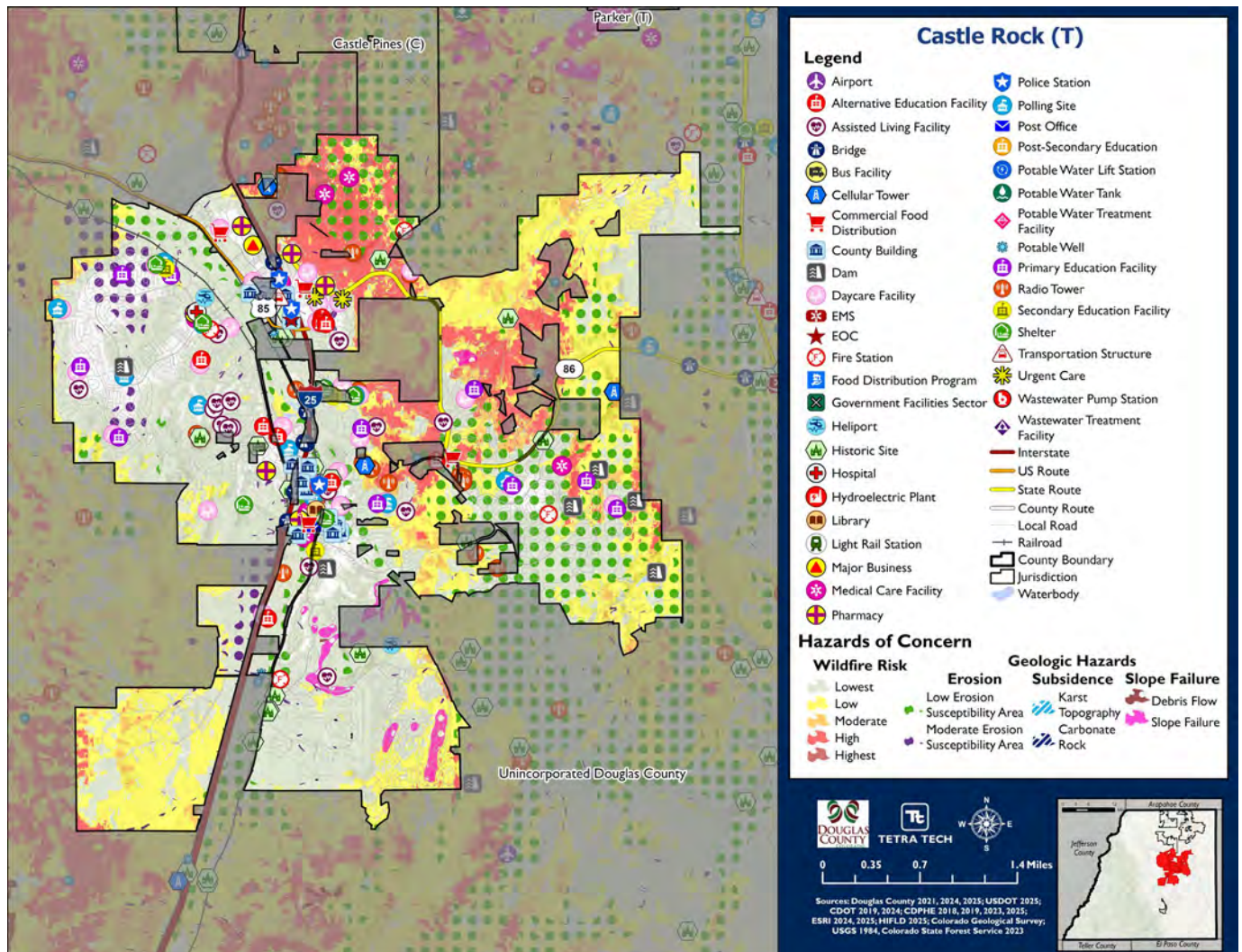


Figure 4-2. Castle Rock Hazard Area Extent and Location Map 2



4.6.2 Hazard Event History

The history of natural and non-natural hazard events in Castle Rock is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its jurisdictions. Table 4-13 provides details on loss and damage in Castle Rock during hazard events since the last hazard mitigation plan update.

Table 4-13. Hazard Event History in Castle Rock

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses
September 6, 2019	Severe Weather	N/A	Severe thunderstorms produced a combination of large hail (1.25 inches) and heavy rain. A brief tornado touched down in an open field near Highlands Ranch. A blast of lightning triggered a house fire in Douglas County, causing extensive damage.	No recordable damages or losses for the Town.
October 29-30, 2019	Severe Weather	N/A	A winter storm brought record breaking temperatures and up to a foot of snow. Numerous schools were closed due to heavy snow and hazardous road conditions. Storm totals included: 10 inches near Parker; 7.5 inches near Castle Pine.	No recordable damages or losses for the Town.
January 20, 2020 - May 11, 2023	Pandemic EM-3436-CO, DR-4498-CO	Yes	During the COVID-19 pandemic disaster declaration, there were a reported 102,146 cases of COVID-19 and 527 COVID-19 related deaths in Douglas County.	No recordable damages or losses for the Town.
March 13-14, 2021	Severe Weather	N/A	Strong winds compounded with heavy snowfall made the roadways impassable in the afternoon and evening. Peak wind gusts to 48 mph produced extensive drifting snow. Drifts ranged from 3 to 6 feet deep. The heavy wet snow caused extensive tree damage and produced power outages.	No recordable damages or losses for the Town.
November - December 2021	Drought	N/A	Portions of the County were in a severe to extreme drought classification (D2/D3) through the months of November and December.	No damages and no water restrictions during this event.
February 23, 2023	Severe Weather	N/A	Bands of moderate to heavy snow showers coupled with strong winds produced poor visibilities and hazardous driving conditions. During the morning hours on the 23rd, wind chill temperatures ranged from -25°F to -30°F.	No recordable damages or losses for the Town.

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses
May 12-13, 2023	Flood	N/A	Swollen creeks and streams produced flooding and flash flooding. Numerous hiking trails in Castlewood Canyon State Park were closed as they were underwater and impassable. Three men in the foothills of Douglas County had to be rescued when their vehicle got stuck in snow along Rampart Range Road in Pike National Forest.	No recordable damages or losses for the Town.
June 22, 2023	Severe Weather DR-4731-CO	Yes	An EF1 tornado touched down just south of CO-470 in the city of Highlands Ranch. Preliminarily the tornado was on the ground for 6.3 miles. No injuries were reported but over 100 trees were downed. Some window/shingle damage has been noted to both houses and commercial properties. Up to 2.5 inches hail occurred.	No recordable damages or losses for the Town.
January 13-16, 2024	Severe Weather	N/A	A long duration snowfall event occurred resulting in several feet of snow. Total snowfall accumulations across the urban corridor and northeast were light, with storm totals generally less than 6 inches, but the icy conditions did cause some travel impacts. Wind chill temperature dropped to -34°F; the record low of -19°F was tied on the morning of the 16th. Some of the plains locations dropped down to -30°F.	No recordable damages or losses for the Town.
June 9, 2024	Severe Weather	N/A	Slow moving thunderstorms produced hail (1.25 inches) and heavy rainfall. There were reports of cars being swamped due to rising waters.	No recordable damages or losses for the Town.
July 30 – August 7, 2024	Wildfire	N/A	A fire was contained August 7th after reaching about 579 acres. No structures were lost in the fire. Several firefighters were treated for heat exhaustion. Mandatory evacuations were ordered for the Deer Creek Mesa area and several subdivisions in the area of Ken Caryl.	No recordable damages or losses for the Town.

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

4.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Castle Rock.

Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions. Castle Rock reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Town agreed with the following preliminary hazard rankings identified in Table 4-14.

Table 4-14 shows Castle Rock's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 4-14. Hazard Ranking

Hazard	Rank
Dam Failure	Low
Drought	High
Earthquake	Low
Flood	Medium
Geologic Hazards	Medium
Hazardous Materials	Medium
Pandemic	Medium
Severe Weather	High
Wildfire	High

Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction

Critical Facilities

Table 4-15 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 4-15. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Event	0.2% Event		
Franktown Parker FPW-1	Dam	Yes	Yes	2026-CastleRock-14	No
Lighthouse Home Health	Medical Care Facility	No	Yes	2026-CastleRock-14	No

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Event	0.2% Event		
Walgreens	Pharmacy	No	Yes	2026-CastleRock-14	No
Castle Rock Pediatrics Medical Clinic	Healthcare	No	Yes	2026-CastleRock-14	No

Source: Douglas County; CDOT; CDPHE; ESRI; HIFLD; US Energy Information Administration; FEMA

4.6.4 Identified Issues

After a review of Castle Rock's hazard event history, hazard rankings, hazard location, and current capabilities, Castle Rock identified the following vulnerabilities within the community:

- The Stormwater Master Plan is up for review and update. There are several stream channel stabilization projects that are identified in the plan that the Town would like to implement.
- Several small-scale dams require reconstruction and major upgrades to bring them back into compliance with state engineering standards.
- There is need for water storage to help mitigate flood risk and lessen drought concerns.
- The Community Wildfire Protection Plan (CWPP) has been adopted and outlines an action plan that the Town would like to implement to protect against wildfire.
- Plum Creek to Rueter Hess Reservoir needs a pump station, pipeline, and outlet structure to properly function.
- The Chatfield Reservoir and Castle Rock Reservoirs #1 and #2 need a pump station and pipeline.
- The Town does not have a Continuity of Operations Plan (COOP) but has dedicated funding to develop a COOP.
- The Town does not have a Disaster Recovery Plan.
- The Town does not have a full-time Emergency Manager to address emergency response and mitigation.
- Develop a Public Safety Message on Flood Safety. Flood safety messaging is needed to educate the public on risks associated with development and property adjacent to floodplains and behaviors around flood control facilities. Messaging to cover topics including insurance coverage, regulations and restrictions, where to find information and safe practices.
- A wildfire risk assessment is needed for areas near critical infrastructure sites of the Town.
- The Community Wildfire Protection Plan (CWPP) was adopted in 2022 and will need to be updated by 2027 to stay consistent and updated with wildfire management information and strategies.
- There are undersized culverts at Prairie Hawk Dr at Industrial Tributary which cause flooding during severe weather and flood events.
- Critical facilities need to be protected to the 500-year flood level. There are a few critical facilities located in the flood hazard area, including:
 - Franktown Parker FPW-1
 - Lighthouse Home Health
 - Walgreens

- Castle Rock Pediatrics Medical Clinic
- The Town has one significant hazard and five low-hazard dams within its jurisdiction. Despite their hazard ratings, these structures have the potential to impact the people, property, infrastructure, and environment nearby.

4.7 MITIGATION STRATEGY AND PRIORITIZATION

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

4.7.1 Past Mitigation Action Status

Table 4-16 indicates progress on the Town's mitigation strategy identified in the 2021 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

4.7.2 Additional Mitigation Efforts

In addition to the mitigation actions completed in Table 4-16, Castle Rock identified the following mitigation efforts completed since the last HMP:

- Several projects under the Town Master Plan have been implemented and completed.
- Design has been completed for the reconstruction/rehabilitation of small-scale dams which retain stormwater.
- Phase I has been completed for Castle Rock Reservoir Number 2 Project.
- The Town has mitigated 369 acres through the end of 2025 as part of the CWPP.
- 90% of the design of an eight mile, 12-inch pipeline has been completed for the Plum Creek to Rueter Hess Reservoir Pipeline.
- Approved funding to complete a Town-wide Continuity of Operations Plan (COOP).

Since the adoption of the County's first HMP, Castle Rock has made significant mitigation progress in the following areas:

- Wildland management
- Plan development and implementation
- Stormwater management

Table 4-16. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
Action CR1	Stream Stabilization and Flood Control on Major Drainageways	Flood, Erosion, Severe Weather	Castle Rock Water	This project includes stream channel stabilization for East Plum Creek, Sellars Gulch and their tributaries within Town boundaries. Projects are identified and prioritized per the Stormwater Master Plan as scheduled activities. Stream improvements generally include natural or engineered segments of vegetated stream between engineered hard points that reduce channel slope and erosive velocities. Improvements also ensure adequate flood capacity in the channel to reduce flood potential for adjacent properties.	1. In progress 2. This is a group of projects under the master plan, some of which have been completed, and some not. The master plan will soon go under revision.	1. Include in 2026 HMP 2. This project includes stream channel stabilization for East Plum Creek, Sellars Gulch and their tributaries within Town boundaries. Projects are identified and prioritized per the Stormwater Master Plan as scheduled activities. Stream improvements generally include natural or engineered segments of vegetated stream between engineered hard points that reduce channel slope and erosive velocities. Improvements also ensure adequate flood capacity in the channel to reduce flood potential for adjacent properties. The Town of Castle Rock will also commence the update of the Stormwater Master Plan. 3. N/A
Action CR2	Dam Reconstruction	Dam Failure, Flood, Erosion, Severe Weather	Castle Rock Water, Castle Rock Parks and Recreation	Reconstruction/rehabilitation of small scale jurisdictional dams retaining stormwater runoff for recreational use. Older retention pond embankments previously used for agricultural purposes exist within Town of Castle Rock boundaries. These facilities require reconstruction and/or major upgrades to bring them into compliance with state engineering standards. These	1. In progress 2. It's through design and will go out for bid in fall 2025. Projected for completion in 2026.	1. Include in 2026 HMP 2. Reconstruction/rehabilitation of small-scale jurisdictional dams retaining stormwater runoff for recreational use. Older retention pond embankments previously used for agricultural purposes exist within Town of Castle Rock boundaries. These facilities require reconstruction and/or major upgrades to bring them into compliance with state engineering

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				actions will reduce the potential for public risk associated with dam failure.		standards. These actions will reduce the potential for public risk associated with dam failure. The Town will commence bid in fall of 2025 and the project will be completed in 2026. 3. N/A
Action CR3	Castle Rock Reservoir No. 2	Drought	Castle Rock Water, Colorado Division of Natural Resources	A 1,130 acre-foot raw water storage reservoir that will be used to store Castle Rock's reuse water and other junior surface water rights from Plum Creek. The water will subsequently be pumped back either to Castle Rock for treatment, or to Rueter-Hess Reservoir for additional storage (and later treatment by Parker Water and Sanitation District and delivery to Castle Rock).	1. In progress 2. Phase I interim construction is complete. CRR2 is operational. Phase II final completion is scheduled for April 2026	1. Include in 2026 HMP 2. A 1,130 acre-foot raw water storage reservoir that will be used to store Castle Rock's reuse water and other junior surface water rights from Plum Creek. The water will subsequently be pumped back either to Castle Rock for treatment, or to Rueter-Hess Reservoir for additional storage (and later treatment by Parker Water and Sanitation District and delivery to Castle Rock). Phase I interim construction is complete. CRR2 is operational. Phase II final completion is scheduled for April 2026. 3.
Action CR4	Fire Management Program	Wildfire	Castle Rock Fire and Rescue Department, Castle Rock Parks and Recreation	Update and implement a comprehensive wildland fire mitigation program through the creation of a Community Wildfire Protection Plan (CWPP). Once finalized, send to the State for review and approval.	1. In progress. Plan was adopted in January 2022. 2. Mitigated 369 acres through the end of 2025.	1. Include in 2026 HMP. 2. The comprehensive wildland fire mitigation program through the creation of a Community Wildfire Protection Plan (CWPP) was adopted in January 2022. So far, a total of 369 acres have been mitigated since 2025. The Castle Rock Fire and Rescue Department will continue to

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						work with the Castle Rock Parks and Recreation department to continue to mitigate, starting with Very High Hazard areas. 3. N/A
Action CR5	Plum Creek to Rueter Hess Reservoir Pipeline, Pump Station and Outlet Structure	Drought, Flood	Castle Rock Water, Parker Water and Sanitation District	An eight mile, 12-inch pipeline that will transfer up to 1,100 acre-feet per year of water from the Plum Creek watershed to Rueter-Hess Reservoir for storage and later treatment by Parker Water and Sanitation District and delivery to Castle Rock.	1. In progress 2. Project is through 90% design. However, 2033 is the expected construction start.	1. Include in 2026 HMP 2. 90% of the design of an eight mile, 12-inch pipeline, has been completed. This pipeline will transfer up to 1,100 acre-feet per year of water from the Plum Creek watershed to Rueter-Hess Reservoir for storage and later treatment by Parker Water and Sanitation District and delivery to Castle Rock. Castle Rock Water will work with Parker Water and Sanitation District to commence construction in 2033. 3. N/A
Action CR6	Chatfield Westside Pumpback Project	Drought, Flood	Castle Rock Water, Denver Water, Dominion Water and Sanitation District	A pump station and pipeline from Chatfield Reservoir to Castle Rock Reservoirs #1 and #2.	1. No progress 2. Waiting for the Corps of Engineers to complete a two-fold approval process. It's unknown when approval will be received. Once approval is obtained, project design will commence.	1. Include in 2026 HMP 2. The Town is waiting for the Corps of Engineers to complete a two-fold approval process. It's unknown when approval will be received. Once approval is obtained, project design will commence on a pump station and pipeline from Chatfield Reservoir to Castle Rock Reservoirs #1 and #2. 3. N/A
Action CR7	Rueter-Hess Fill Pipeline	Flood	Castle Rock Water, Parker Water and	An outlet pipeline from the WISE Project infrastructure in Parker Water and Sanitation District into RHR.	1. No progress 2. Budget issues	1. Discontinue 2. N/A 3. Discontinue for now due to lack of funding.

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
			Sanitation District			
Action CR8	Develop a Town-wide Continuity of Operations Plan (COOP).	All Hazards	Castle Rock Fire and Rescue Department, Town Manager's Office	Develop a Town-wide Continuity of Operations Plan (COOP).	1. In progress. 2. Received approved funding but have not secured a contractor. Target completion Q4 2026.	1. Include in 2026 HMP. 2. The Town has received funding to develop a Town-wide Continuity of Operations Plan (COOP). The Town Manager's Office in partnership with Castle Rock Fire and Rescue Department will work to secure a contractor to target completion of the plan in quarter 4 of 2026. 3. N/A
Action CR9	Post Disaster Recovery Plan	All Hazards	Castle Rock Fire and Rescue Department, Town Manager's Office Finance Department	The Town of Castle Rock will explore the feasibility of developing a Town specific disaster recovery plan.	1. No progress. 2. Staff time and funding availability. Include in 2026 HMP as still desire to complete.	1. Include in 2026 HMP 2. The Town of Castle Rock will allot staff time to explore the feasibility of developing a Town specific disaster recovery plan. 3. N/A
Action CR10	Emergency Manager	All Hazards	Castle Rock Fire and Rescue Department, Town Manager's Office	Perform a needs assessment and gap analysis to determine the need for a full-time Emergency Manager	1. No progress. 2. Funding denied for position. Include in 2026 HMP as still a desire to obtain a FTE.	1. Include in 2026 HMP 2. The Town will work to obtain an FTE to perform a needs assessment and gap analysis to determine the need for a full-time Emergency Manager. 3. N/A
Action CR11	Develop a Public Safety Message on Flood Safety	Flood	Castle Rock Water, Community Relations	Flood safety messaging is needed to educate the public on risks associated with development and property adjacent to floodplains and behaviors around flood	1. In progress 2. The Stormwater section of the Town website includes information described in the Action column. Additionally,	1. Include in 2026 HMP. 2. The Stormwater section of the Town website includes information described in the Action column. Additionally, general outreach

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				control facilities. Messaging to cover topics including insurance coverage, regulations and restrictions, where to find information and safe practices.	general outreach messaging occurs through Community Relations.	messaging occurs through Community Relations to educate the public on risks associated with development and property adjacent to floodplains and behaviors around flood control facilities. Messaging to cover topics including insurance coverage, regulations and restrictions, where to find information and safe practices. The Town will continue to update this information regularly to provide the most current resources to residents. 3. N/A
Action CR12	Douglas County is currently working on developing a countywide wildfire partnership.	Wildfire	Castle Rock Fire and Rescue Department, Town Manager's Office	Working with the County, the Town will perform a needs assessment and wildfire risk assessment for the areas immediately around and adjacent to the Town's critical infrastructure sites.	1. In progress 2. Working with DC and TCR entities to identify and mitigate.	1. Include in 2026 HMP. 2. Castle Rock Fire and Rescue Department in partnership with the Town Manager's Office will work with Douglas County to perform a needs assessment and wildfire risk assessment for the areas immediately around and adjacent to the Town's critical infrastructure sites. 3. N/A

4.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Castle Rock participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 “Selecting Appropriate Mitigation Measures for Floodprone Structures” (March 2007)
- FEMA “Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards” (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Castle Rock would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in Town priorities.

Table 4-17 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 12 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 4-18 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.

Table 4-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure	X	X		X	X		X		X	X
Drought	X	X		X			X		X	X
Earthquake	X			X			X			X
Flood	X	X		X	X	X	X		X	X
Geologic Hazards	X	X		X			X		X	X
Hazardous Materials	X			X			X			X
Pandemic	X			X			X			X
Severe Weather	X	X		X	X		X		X	X
Wildfire	X		X	X			X	X		X

Local Plans and Regulations (LPR)—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

Structure and Infrastructure Project (SIP)—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

Natural Systems Protection (NSP)—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

Education and Awareness Programs (EAP)—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

Preventative Measures (PR)—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

Property Protection (PP)—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

Public Information (PI)—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

Natural Resource Protection (NR)—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

Structural Flood Control Projects (SP)—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

Emergency Services (ES)—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities

Table 4-18. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria													High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Administrative	Hazards of Concern	Timeline	Community Lifelines	Other Local Objectives	Total	
2026-Castle Rock-01	Stream Stabilization and Flood Control on Major Drainageways	1	1	1	1	1	0	1	1	1	1	1	1	11	High
2026-Castle Rock-02	Dam Reconstruction	1	1	1	1	1	0	0	1	1	1	1	1	10	High
2026-Castle Rock-03	Castle Rock Reservoir No. 2	1	1	1	1	1	1	0	1	1	1	1	1	11	High
2026-Castle Rock-04	Fire Management Program	1	1	1	1	1	1	1	1	1	1	1	1	12	High
2026-Castle Rock-05	Plum Creek to Rueter Hess Reservoir Pipeline, Pump Station and Outlet Structure	1	1	1	1	1	1	0	1	1	1	1	1	11	High
2026-Castle Rock-06	Chatfield Westside Pumpback Project	1	1	1	1	0	0	0	1	1	1	1	1	9	High
2026-Castle Rock-07	Develop a Town-wide Continuity of Operations Plan (COOP)	1	1	1	1	1	1	0	1	1	1	1	1	11	High
2026-Castle Rock-08	Post Disaster Recovery Plan	1	1	1	1	1	0	0	1	1	1	1	1	10	High
2026-Castle Rock-09	Emergency Manager	1	1	1	1	1	0	0	1	1	1	1	1	10	High
2026-Castle Rock-10	Develop a Public Safety Message on Flood Safety	1	1	1	1	1	1	0	1	1	1	1	1	11	High
2026-Castle Rock-11	Countywide wildfire partnership	1	1	1	1	1	1	0	1	1	1	1	1	11	High
2026-Castle Rock-12	Update Community Wildfire Protection Plan (CWPP)	1	1	1	1	1	1	0	1	1	1	1	1	11	High
2026-Castle Rock-13	Culvert Design and Construction	1	1	1	1	1	1	0	1	1	1	1	0	10	High

Project Number	Project Name	Scores for Evaluation Criteria													High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Administrative	Hazards of Concern	Timeline	Community Lifelines	Other Local Objectives	Total	
2026-Castle Rock-14	Critical Facility Protection	1	1	1	1	1	1	0	1	1	1	1	0	10	High
2026-Castle Rock-15	Dam Owner Partnership	1	1	1	1	1	1	0	1	0	1	1	0	9	High
2026-Castle Rock-16	Comprehensive Outreach Program	1	1	1	1	1	1	0	1	1	1	0	0	9	High

Note: Volume I, Section 19 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-12).

Action 2026-Castle Rock-01. Stream Stabilization and Flood Control on Major Drainageways

Lead Agency:	Castle Rock Water								
Supporting Agencies:	-								
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☒ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☒ Severe Weather ☐ Wildfire								
Description of the Problem:	The Stormwater Master Plan is up for review and update. There are several stream channel stabilization projects that are identified in the plan that the Town would like to implement.								
Description of the Solution:	This project includes stream channel stabilization for East Plum Creek, Sellars Gulch and their tributaries within Town boundaries. Projects are identified and prioritized per the Stormwater Master Plan as scheduled activities. Stream improvements generally include natural or engineered segments of vegetated stream between engineered hard points that reduce channel slope and erosive velocities. Improvements also ensure adequate flood capacity in the channel to reduce flood potential for adjacent properties. The Town of Castle Rock will also commence the update of the Stormwater Master Plan.								
Estimated Cost:	TBD								
Potential Funding Sources:	General funds, TBD on eligible funding sources for plan update.								
Implementation Timeline:	Short (1-2 years); ongoing for updates								
Goals Met:	2, 4								
Benefits:	Overall flooding will be reduced, which will result in less frequency of road closures and reduced damage to properties.								
Impact on Future Development:	Future development is safeguarded by stabilizing stream channels and updating the Stormwater Master Plan, which guides responsible growth away from erosion-prone and flood-prone zones.								
Impact on Critical Facilities/Lifelines:	Critical facilities are protected through enhanced flood capacity and erosion control measures that ensure emergency services, utilities, and infrastructure remain operational during storm events.								
Impact on Capabilities:	Town capabilities will be strengthened by integrating updated data and priorities into the Stormwater Master Plan, improving long-term planning, interdepartmental coordination, and resilience to climate impacts.								
Mitigation Category:	☒ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)								
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☒ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)								
Priority:	☒ High ☐ Medium ☐ Low								
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Utilize previous Stormwater Master Plan</td><td>The plan will be outdated soon and may not be accurate.</td></tr> <tr> <td>Utilize state and federal stormwater plans and resources</td><td>Great to leverage but does not provide locally pertinent information</td></tr> </tbody> </table>			No Action	Current problem exists	Utilize previous Stormwater Master Plan	The plan will be outdated soon and may not be accurate.	Utilize state and federal stormwater plans and resources	Great to leverage but does not provide locally pertinent information
No Action	Current problem exists								
Utilize previous Stormwater Master Plan	The plan will be outdated soon and may not be accurate.								
Utilize state and federal stormwater plans and resources	Great to leverage but does not provide locally pertinent information								

Action 2026-Castle Rock-02. Dam Reconstruction

Lead Agency:	Castle Rock Water		
Supporting Agencies:	Castle Rock Parks and Recreation		
Hazard(s) of Concern:	☒ Dam Failure ☐ Drought ☐ Earthquake ☒ Flood ☒ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☒ Severe Weather ☐ Wildfire		
Description of the Problem:	Several small-scale dams require reconstruction and major upgrades to bring them back into compliance with state engineering standards		
Description of the Solution:	Reconstruction/rehabilitation of small-scale jurisdictional dams retaining stormwater runoff for recreational use. Older retention pond embankments previously used for agricultural purposes exist within Town of Castle Rock boundaries. These actions will reduce the potential for public risk associated with dam failure. The Town will commence bid in fall of 2025 and the project will be completed in 2026.		
Estimated Cost:	TBD		
Potential Funding Sources:	General funds		
Implementation Timeline:	TBD		
Goals Met:	4, 5, 6, 7, 8		
Benefits:	This action will improve the safety and security of those who live near the dams and increase the resilience of responding agencies.		
Impact on Future Development:	Future development is protected by upgrading aging dam infrastructure to meet current engineering standards, ensuring safe stormwater retention and reducing flood hazards in expanding urban areas.		
Impact on Critical Facilities/Lifelines:	Critical facilities are safeguarded by stabilizing upstream water retention systems, which helps prevent downstream flooding that could disrupt emergency services, utilities, and transportation routes.		
Impact on Capabilities:	Town capabilities will be improved through modernized infrastructure and compliance with state standards, enabling more effective stormwater management and emergency preparedness.		
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☒ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)		
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☒ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)		
Priority:	☒ High ☐ Medium ☐ Low		
Alternatives:	No Action		Current problem exists
	Remove dams		Not an option, costly.
	Relocate dams		Not an option, costly.

Action 2026-Castle Rock-03. Castle Rock Reservoir No. 2

Lead Agency:	Castle Rock Water								
Supporting Agencies:	Colorado Division of Natural Resources								
Hazard(s) of Concern:	☐ Dam Failure ☒ Drought ☐ Earthquake ☒ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☐ Wildfire								
Description of the Problem:	There is need for water storage to help mitigate flood risk and lessen drought concerns.								
Description of the Solution:	The Town will construct a 1,130-acre-foot raw water storage reservoir that will be used to store Castle Rock's reuse water and other junior surface water rights from Plum Creek. The water will subsequently be pumped back either to Castle Rock for treatment, or to Rueter-Hess Reservoir for additional storage (and later treatment by Parker Water and Sanitation District and delivery to Castle Rock). Phase I interim construction is complete. CRR2 is operational. Phase II final completion is scheduled for April 2026.								
Estimated Cost:	Medium (\$10,000 - \$100,000)								
Potential Funding Sources:	Water District funds								
Implementation Timeline:	Short-term (1-2 years)								
Goals Met:	4, 5, 7								
Benefits:	Water management infrastructure will be enhanced to provide adequate capacity for the population of which Castle Rock Water serves. Further, ensuring water availability through storage can decrease the pressure felt during periods of drought.								
Impact on Future Development:	Future development is protected by ensuring a sustainable water supply that supports growth while maintaining environmental and resource resilience.								
Impact on Critical Facilities/Lifelines:	Critical facilities are safeguarded through enhanced water storage capacity, which ensures consistent access to water for hospitals, emergency services, and essential infrastructure.								
Impact on Capabilities:	Town capabilities will be improved by expanding water management infrastructure, enabling better control over water resources, interagency coordination, and long-term planning.								
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☒ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)								
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☒ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)								
Priority:	☒ High ☐ Medium ☐ Low								
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Impose water restrictions</td><td>Does not address flooding concerns</td></tr> <tr> <td>Rely on federal assistance during drought periods</td><td>Not always reliable or accessible depending on the hazard event.</td></tr> </tbody> </table>			No Action	Current problem exists	Impose water restrictions	Does not address flooding concerns	Rely on federal assistance during drought periods	Not always reliable or accessible depending on the hazard event.
No Action	Current problem exists								
Impose water restrictions	Does not address flooding concerns								
Rely on federal assistance during drought periods	Not always reliable or accessible depending on the hazard event.								

Action 2026-Castle Rock-04. Fire Management Program

Lead Agency:	Castle Rock Fire and Rescue Department		
Supporting Agencies:	Castle Rock Parks and Recreation		
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☐ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☒ Wildfire		
Description of the Problem:	The Community Wildfire Protection Plan (CWPP) has been adopted and outlines an action plan that the Town would like to implement to protect against wildfire.		
Description of the Solution:	The comprehensive wildland fire mitigation program through the creation of a Community Wildfire Protection Plan (CWPP) was adopted in January 2022. So far, a total of 369 acres has been mitigated since 2022. The Castle Rock Fire and Rescue Department will work with the Castle Rock Parks and Recreation department to mitigate, starting with Very High Hazard areas.		
Estimated Cost:	High (\$100,000 - \$1,000,000)		
Potential Funding Sources:	General funding, Comprehensive Wildland Fire Mitigation Program		
Implementation Timeline:	Short-term (1-2 years); ongoing		
Goals Met:	4, 5, 6		
Benefits:	The removal of fire fuel can drastically reduce the risk of wildfires. Removing the fire fuel in risk areas can further protect persons and property from potential impacts.		
Impact on Future Development:	Future development is protected by proactive vegetation management and planning that reduces wildfire intensity and supports safer land use in high-risk zones.		
Impact on Critical Facilities/Lifelines:	Critical facilities are safeguarded through strategic mitigation near essential infrastructure, ensuring continuity of operations during wildfire events.		
Impact on Capabilities:	Town capabilities are improved through interdepartmental collaboration and ongoing updates to the CWPP, enhancing readiness, resource allocation, and long-term resilience.		
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP) ☒ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)		
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI) ☒ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)		
Priority:	☒ High	☐ Medium	☐ Low
Alternatives:	No Action Utilize state wildfire plans and resource Utilize federal wildfire plans and resource	Current problem exists Will not provide local knowledge alone, but great to leverage with local program and plan. Will not provide local knowledge alone, but great to leverage with local program and plan.	

Action 2026-Castle Rock-05. Plum Creek to Rueter Hess Reservoir Pipeline, Pump Station and Outlet Structure

Lead Agency:	Castle Rock Water		
Supporting Agencies:	Parker Water and Sanitation District		
Hazard(s) of Concern:	☐ Dam Failure ☒ Drought ☐ Earthquake ☒ Flood ☐ Geologic Hazards	☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☐ Wildfire	
Description of the Problem:	Plum Creek to Rueter Hess Reservoir needs a pump station, pipeline, and outlet structure to properly function.		
Description of the Solution:	90% of the design of an eight-mile, 12-inch pipeline has been completed. This pipeline will transfer up to 1,100 acre-feet per year of water from the Plum Creek watershed to Rueter-Hess Reservoir for storage and later treatment by Parker Water and Sanitation District and delivery to Castle Rock. Castle Rock Water will work with Parker Water and Sanitation District to commence construction in 2033.		
Estimated Cost:	Medium (\$10,000 - \$100,000)		
Potential Funding Sources:	General funds, water district funds		
Implementation Timeline:	Medium (1-5 years)		
Goals Met:	4, 6, 7		
Benefits:	Water management infrastructure will be enhanced to provide adequate capacity for the population of which Castle Rock Water serves.		
Impact on Future Development:	Future development is protected by securing a sustainable water supply that supports growth while reducing dependence on limited local sources.		
Impact on Critical Facilities/Lifelines:	Critical facilities are safeguarded through enhanced water storage and delivery infrastructure, ensuring uninterrupted service to hospitals, emergency responders, and essential utilities.		
Impact on Capabilities:	Town capabilities are improved through regional collaboration and strategic infrastructure planning, strengthening resilience to climate variability and future water demands.		
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☒ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)	
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)	☐ Natural Resource Protection (NR) ☒ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)	
Priority:	☒ High	☐ Medium	☐ Low
Alternatives:	No Action	Current problem exists	
	Remove the reservoir	Costly, loss of critical service	
	Relocate reservoir	Not an option, loss of critical service, no area to relocate.	

Action 2026-Castle Rock-06. Chatfield Westside Pumpback Project

Lead Agency:	Castle Rock Water		
Supporting Agencies:	Denver Water, Dominion Water and Sanitation District		
Hazard(s) of Concern:	☐ Dam Failure ☒ Drought ☐ Earthquake ☒ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☐ Wildfire		
Description of the Problem:	The Chatfield Reservoir and Castle Rock Reservoirs #1 and #2 need a pump station and pipeline.		
Description of the Solution:	The Town is waiting for the Corps of Engineers to complete a two-fold approval process. It's unknown when approval will be received. Once approval is obtained, project design will commence on a pump station and pipeline from Chatfield Reservoir to Castle Rock Reservoirs #1 and #2.		
Estimated Cost:	TBD		
Potential Funding Sources:	USACE		
Implementation Timeline:	TBD depending on USACE approval		
Goals Met:	4, 6, 7		
Benefits:	Water management infrastructure will be enhanced to provide adequate capacity for the population of which Castle Rock Water serves.		
Impact on Future Development:	Future development is protected by expanding water infrastructure to support population growth and ensure sustainable resource management.		
Impact on Critical Facilities/Lifelines:	Critical facilities are safeguarded through improved water delivery systems that help maintain essential services like healthcare, emergency response, and public safety.		
Impact on Capabilities:	Town capabilities are enhanced by preparing for long-term water needs through strategic planning and interagency coordination, ensuring resilience against future environmental and supply challenges.		
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☒ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)		
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☒ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)		
Priority:	☒ High	☐ Medium	☐ Low
Alternatives:	No Action Construct without USACE approval Remove the Reservoirs	Current problem exists Not an option. Not an option, loss of critical service.	

Action 2026-Castle Rock-07. Develop a Town-wide Continuity of Operations Plan (COOP)

Lead Agency:	Castle Rock Fire and Rescue Department		
Supporting Agencies:	Town Manager's Office		
Hazard(s) of Concern:	☒ Dam Failure ☒ Drought ☒ Earthquake ☒ Flood ☒ Geologic Hazards	☒ Hazardous Materials ☒ Pandemic ☒ Severe Weather ☒ Wildfire	
Description of the Problem:	The Town does not have a Continuity of Operations Plan (COOP) but has dedicated funding to develop a COOP.		
Description of the Solution:	The Town has dedicated funding to develop a Town-wide Continuity of Operations Plan (COOP). The Town Manager's Office in partnership with Castle Rock Fire and Rescue Department will work to secure a contractor to target completion of the plan in quarter 4 of 2026.		
Estimated Cost:	Low		
Potential Funding Sources:	Funding has already been secured.		
Implementation Timeline:	Short-term (1-2 years)		
Goals Met:	4, 5, 6, 7		
Benefits:	The Continuity of Operations Plan (COOP) will ensure that essential functions of the Town continue during and after a disruption caused by emergencies, whether manmade, natural, or technological.		
Impact on Future Development:	Future development is protected by embedding resilience into municipal operations, helping new infrastructure and services withstand and recover from disasters more effectively.		
Impact on Critical Facilities/Lifelines:	Critical facilities are safeguarded through detailed operational planning that prioritizes their functionality and rapid recovery in the face of disruptions.		
Impact on Capabilities:	Town capabilities are enhanced by establishing a comprehensive COOP that strengthens interdepartmental coordination, emergency preparedness, and long-term operational resilience.		
Mitigation Category:	☒ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)	
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)	
Priority:	☒ High	☐ Medium	☐ Low
Alternatives:	No Action		Current problem exists
	Utilize neighboring community COOP		Not locally specific to the Town or department staff.
	Rely on federal resources for continuity of operations		Not always reliable or accessible to the area.

Action 2026-Castle Rock-08. Post Disaster Recovery Plan

Lead Agency:	Castle Rock Fire and Rescue Department		
Supporting Agencies:	Town Manager's Office, Finance Department		
Hazard(s) of Concern:	☒ Dam Failure ☒ Drought ☒ Earthquake ☒ Flood ☒ Geologic Hazards	☒ Hazardous Materials ☒ Pandemic ☒ Severe Weather ☒ Wildfire	
Description of the Problem:	The Town does not have a Disaster Recovery Plan.		
Description of the Solution:	The Town of Castle Rock will allot staff time to explore the feasibility of developing a Town specific disaster recovery plan.		
Estimated Cost:	TBD		
Potential Funding Sources:	TBD		
Implementation Timeline:	Short-term (1-2 years); ongoing for updates		
Goals Met:	4, 5, 6		
Benefits:	The Post Disaster Recovery Plan will guide community leaders in the long-term recovery and redevelopment following a major or catastrophic disaster. It serves as a blueprint for rebuilding the physical, social, and economic fabric of the community.		
Impact on Future Development:	Future development is protected by integrating recovery strategies that support resilient rebuilding and guide land use decisions in hazard-prone areas.		
Impact on Critical Facilities/Lifelines:	Critical facilities are safeguarded through planning that ensures rapid restoration of essential services and infrastructure following a disaster.		
Impact on Capabilities:	Town capabilities are improved by proactively assessing recovery needs and establishing a framework for coordinated, efficient, and resilient post-disaster operations.		
Mitigation Category:	☒ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)	
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)	
Priority:	☒ High	☐ Medium	☐ Low
Alternatives:	No Action Rely on state disaster recovery efforts Rely on federal disaster recovery efforts	Current problem exists Not always reliable in every disaster. Not always locally accessible. Not always reliable in every disaster. Not always locally accessible.	

Action 2026-Castle Rock-09. Emergency Manager

Lead Agency:	Castle Rock Fire and Rescue Department								
Supporting Agencies:	Town Manager's Office								
Hazard(s) of Concern:	☒ Dam Failure ☒ Drought ☒ Earthquake ☒ Flood ☒ Geologic Hazards	☒ Hazardous Materials ☒ Pandemic ☒ Severe Weather ☒ Wildfire							
Description of the Problem:	The Town does not have a full-time Emergency Manager to address emergency response and mitigation.								
Description of the Solution:	The Town will work to perform a needs assessment and gap analysis to determine the need for a full-time Emergency Manager.								
Estimated Cost:	TBD								
Potential Funding Sources:	General funds, EMPG								
Implementation Timeline:	TBD								
Goals Met:	4, 5, 6, 7								
Benefits:	Employing a full-time Emergency Manager will strengthen the safety and security lifeline in the Town. An emergency manager is hired to ensure the safety and well-being of communities and organizations by preparing for, responding to, and recovering from various disasters and emergencies.								
Impact on Future Development:	Future development is protected by assessing emergency management gaps that could impact resilience and integrating findings into planning and infrastructure decisions.								
Impact on Critical Facilities/Lifelines:	Critical facilities are safeguarded by identifying vulnerabilities and ensuring emergency management capacity is sufficient to support rapid response and recovery.								
Impact on Capabilities:	Town capabilities are enhanced by evaluating and potentially establishing a dedicated Emergency Manager role, strengthening preparedness, coordination, and long-term resilience.								
Mitigation Category:	☒ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)							
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)							
Priority:	☒ High	☐ Medium	☐ Low						
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Rely on state SME</td><td>Not an option, they are not able to provide consistent assistance due to other obligations.</td></tr> <tr> <td>Rely on Federal SME</td><td>Not an option, they are not able to provide consistent assistance due to other obligations.</td></tr> </tbody> </table>	No Action	Current problem exists	Rely on state SME	Not an option, they are not able to provide consistent assistance due to other obligations.	Rely on Federal SME	Not an option, they are not able to provide consistent assistance due to other obligations.		
No Action	Current problem exists								
Rely on state SME	Not an option, they are not able to provide consistent assistance due to other obligations.								
Rely on Federal SME	Not an option, they are not able to provide consistent assistance due to other obligations.								

Action 2026-Castle Rock-10. Develop a Public Safety Message on Flood Safety

Lead Agency:	Castle Rock Water								
Supporting Agencies:	Community Relations								
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☒ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☒ Severe Weather ☐ Wildfire								
Description of the Problem:	Develop a Public Safety Message on Flood Safety. Flood safety messaging is needed to educate the public on risks associated with development and property adjacent to floodplains and behaviors around flood control facilities. Messaging to cover topics including insurance coverage, regulations and restrictions, where to find information and safe practices.								
Description of the Solution:	The Stormwater section of the Town website includes information described in the Action column. Additionally, general outreach messaging occurs through Community Relations to educate the public on risks associated with development and property adjacent to floodplains and behaviors around flood control facilities. Messaging to cover topics including insurance coverage, regulations and restrictions, where to find information and safe practices. The Town will continue to update this information regularly to provide the most current resources to residents.								
Estimated Cost:	Low (staff time)								
Potential Funding Sources:	General funds, staff time								
Implementation Timeline:	Ongoing (annual updates)								
Goals Met:	3, 4, 6								
Benefits:	This action will improve the public education and outreach capabilities in the Town by including discussions on disaster preparedness and hazard mitigation to residents and business owners, which will contribute to the resiliency of the Town.								
Impact on Future Development:	Future development is protected by public education that promotes responsible building near floodplains and encourages compliance with floodplain regulations.								
Impact on Critical Facilities/Lifelines:	Critical facilities are safeguarded through increased community awareness of flood control infrastructure, reducing misuse and enhancing preparedness around essential systems.								
Impact on Capabilities:	Town capabilities are improved by maintaining a centralized, regularly updated resource hub and leveraging outreach to strengthen public engagement and risk communication.								
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☒ Education and Awareness Programs (EAP)								
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☒ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)								
Priority:	☒ High	☐ Medium	☐ Low						
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Keep website as is</td><td>Information will become out of date and will not be helpful to residents</td></tr> <tr> <td>Utilize state or federal website</td><td>This may not be accessible by the public</td></tr> </tbody> </table>			No Action	Current problem exists	Keep website as is	Information will become out of date and will not be helpful to residents	Utilize state or federal website	This may not be accessible by the public
No Action	Current problem exists								
Keep website as is	Information will become out of date and will not be helpful to residents								
Utilize state or federal website	This may not be accessible by the public								

Action 2026-Castle Rock-11. Countywide Wildfire Partnership

Lead Agency:	Castle Rock Fire and Rescue Department								
Supporting Agencies:	Town Manager's Office, County								
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☐ Flood ☐ Geologic Hazards	☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☒ Wildfire							
Description of the Problem:	A wildfire risk assessment is needed for areas near critical infrastructure sites of the Town.								
Description of the Solution:	Castle Rock Fire and Rescue Department, in partnership with the Town Manager's Office, will work with Douglas County to perform a needs assessment and wildfire risk assessment for the areas immediately around and adjacent to the Town's critical infrastructure sites.								
Estimated Cost:	Low (staff time)								
Potential Funding Sources:	General funds								
Implementation Timeline:	Short-term (1-2 years)								
Goals Met:	2, 3, 4, 5								
Benefits:	Partnering with inter and intra-agency departments will provide additional capabilities for the Department to utilize to identify and prioritize which critical facilities may be most at risk to the wildfire hazard and how to mitigate those risks.								
Impact on Future Development:	Future development is protected by identifying wildfire risks near infrastructure and integrating mitigation strategies into planning and zoning decisions.								
Impact on Critical Facilities/Lifelines:	Critical facilities are safeguarded through targeted risk assessments that inform protective measures and ensure operational continuity during wildfire emergencies.								
Impact on Capabilities:	Town capabilities are improved by strengthening interagency collaboration and using data-driven assessments to guide emergency planning and resource allocation.								
Mitigation Category:	☒ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)							
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)							
Priority:	☒ High	☐ Medium	☐ Low						
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Utilize previous wildfire plans</td><td>May be out of date or non-existent for this area.</td></tr> <tr> <td>Utilize neighboring community wildfire plans</td><td>May be helpful to model but will not be correct data for the specific area in need.</td></tr> </tbody> </table>	No Action	Current problem exists	Utilize previous wildfire plans	May be out of date or non-existent for this area.	Utilize neighboring community wildfire plans	May be helpful to model but will not be correct data for the specific area in need.		
No Action	Current problem exists								
Utilize previous wildfire plans	May be out of date or non-existent for this area.								
Utilize neighboring community wildfire plans	May be helpful to model but will not be correct data for the specific area in need.								

Action 2026-Castle Rock-12. Update Community Wildfire Protection Plan (CWPP)

Lead Agency:	Castle Rock Fire and Rescue Department		
Supporting Agencies:	Town Manager's Office		
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☐ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☒ Wildfire		
Description of the Problem:	The Community Wildfire Protection Plan (CWPP) was adopted in 2022 and will need to be updated by 2027 to stay consistent and updated with wildfire management information and strategies.		
Description of the Solution:	The Town will work to budget the hiring of a contractor to assist with updating CWPP in 2027.		
Estimated Cost:	Low (staff time)		
Potential Funding Sources:	General funds		
Implementation Timeline:	Short-term (1-2 years)		
Goals Met:	2, 3, 4, 5, 6		
Benefits:	An updated Community Wildfire Protection Plan (CWPP) will work to reduce wildfire risks, enhance community safety, and prioritize local needs through collaborative planning and resource allocation.		
Impact on Future Development:	Future development is protected by identifying wildfire risks near infrastructure and integrating mitigation strategies into planning and zoning decisions through the CWPP.		
Impact on Critical Facilities/Lifelines:	Critical facilities are safeguarded through CWPP planning efforts that inform protective measures and ensure operational continuity during wildfire emergencies.		
Impact on Capabilities:	Town capabilities are improved by strengthening interagency collaboration and using data-driven guidance for emergency planning and resource allocation.		
Mitigation Category:	☒ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)		
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)		
Priority:	☒ High ☐ Medium ☐ Low		
Alternatives:	No Action		Current problem exists
	Utilize previous wildfire plans		May be out of date or non-existent for this area.
	Utilize neighboring community wildfire plans		May be helpful to model but will not be correct data for the specific area in need.

Action 2026-Castle Rock-13. Culvert Design and Construction

Lead Agency:	Engineering		
Supporting Agencies:	Town Manager's Office		
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☒ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☒ Severe Weather ☐ Wildfire		
Description of the Problem:	There are undersized culverts at Prairie Hawk Dr at Industrial Tributary which cause flooding during severe weather and flood events.		
Description of the Solution:	The Engineering Department will work with the Town Manager's Office to design and install the correct size of culvert to pass the major storm event and road way overtopping during a major storm event.		
Estimated Cost:	Low (staff time)		
Potential Funding Sources:	General funds		
Implementation Timeline:	Short-term (1-2 years)		
Goals Met:	4, 7		
Benefits:	Overall flooding will be reduced, which will result in less frequency of road closures and reduced damage occurring to culverts and roadways during severe events. Businesses are likely to remain in place if they are able to remain open, or re-open sooner following a flood.		
Impact on Future Development:	This project supports sustainable growth by improving stormwater management infrastructure, reducing future flood-related disruptions, and enabling resilient development in the Town.		
Impact on Critical Facilities/Lifelines:	By preventing roadway overtopping, the culvert will help maintain access to critical facilities and lifelines such as emergency services, utilities, and evacuation routes during severe weather events.		
Impact on Capabilities:	The collaboration between the Engineering Department and Town Manager's Office strengthens the Town's capability to implement proactive, data-driven solutions for storm resilience and infrastructure reliability.		
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☒ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)		
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☒ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)		
Priority:	☒ High	☐ Medium	☐ Low
Alternatives:	No Action Remove culverts Relocate culverts	Current problem exists Problem worsens Flooding still occurs at the original location, despite mitigating other location.	

Action 2026-Castle Rock-14. Critical Facility Protection

Lead Agency:	Critical Facility Owners and Managers								
Supporting Agencies:	Town Council								
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☒ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☐ Wildfire								
Description of the Problem:	Critical facilities need to be protected to the 500-year flood level. There are a few critical facilities located in the flood hazard area, including: • Franktown Parker FPW-1 • Lighthouse Home Health • Walgreens • Castle Rock Pediatrics Medical Clinic								
Description of the Solution:	The Town will notify the critical facility owners and managers of the facility's location in the flood hazard area. The Town will encourage each facility to conduct a feasibility assessment to determine what additional floodproofing measures are needed at the critical facilities to protect them to the 500-year flood level. Options include: • Elevation of facility • Floodproofing of facility • Mobile flood barriers Once the most cost-effective option is identified, the facility owner or manager will carry out the option.								
Estimated Cost:	Medium								
Potential Funding Sources:	FEMA HMA, USDA Community Facilities Grant Program, Town Budget								
Implementation Timeline:	Within 5 Years								
Goals Met:	1, 3, 5								
Benefits:	Ensures continuity of operations of several critical facilities in the Town.								
Impact on Future Development:	The risk of significant damage occurring to the structure will be reduced, which will allow critical operations to be maintained or only briefly interrupted in severe events. This provides continued support to both current and future development in the service area.								
Impact on Critical Facilities/Lifelines:	This action will protect critical facilities, maintaining the critical services that it provides.								
Impact on Capabilities:	This action improves continuity of operations during a flood event, allows for a more rapid return to pre-disaster capabilities after a flood event, and faster deployment of post disaster capabilities.								
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☒ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)								
CRS Category:	☐ Preventative Measures (PR) ☒ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)								
Priority:	☒ High	☐ Medium	☐ Low						
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Relocate facility</td><td>Relocation is expensive and results in loss or delay of critical services in the immediate area</td></tr> <tr> <td>Establish plans to enter into MOU with neighboring critical facilities to provide service during flood events</td><td>Reduction in response times and delay of critical services in the immediate area.</td></tr> </tbody> </table>			No Action	Current problem exists	Relocate facility	Relocation is expensive and results in loss or delay of critical services in the immediate area	Establish plans to enter into MOU with neighboring critical facilities to provide service during flood events	Reduction in response times and delay of critical services in the immediate area.
No Action	Current problem exists								
Relocate facility	Relocation is expensive and results in loss or delay of critical services in the immediate area								
Establish plans to enter into MOU with neighboring critical facilities to provide service during flood events	Reduction in response times and delay of critical services in the immediate area.								

Action 2026-Castle Rock-15. Dam Owner Partnership

Lead Agency:	Public Works		
Supporting Agencies:	County, Dam Owner		
Hazard(s) of Concern:	☒ Dam Failure ☐ Drought ☐ Earthquake ☒ Flood ☐ Geologic Hazards	☐ Hazardous Materials ☐ Pandemic ☒ Severe Weather ☐ Wildfire	
Description of the Problem:	The Town has one significant hazard and five low-hazard dams within its jurisdiction. Despite their hazard ratings, these structures have the potential to impact the people, property, infrastructure, and environment nearby.		
Description of the Solution:	The Town will work with the County and owners of the dams to ensure inspections and safety procedures are up to date. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Dam Owner will pursue funding support, permit approval from the State, and implement the cost-effective measures.		
Estimated Cost:	Low		
Potential Funding Sources:	Town Budget		
Implementation Timeline:	Within 5 years		
Goals Met:	4, 6, 8		
Benefits:	This action will improve the safety and security of those who live near the dams and increase the resilience of responding agencies.		
Impact on Future Development:	Future development near the dams will be more secure as safety procedures and inspections are regularly performed on the dams.		
Impact on Critical Facilities/Lifelines:	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.		
Impact on Capabilities:	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.		
Mitigation Category:	☒ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)	
CRS Category:	☒ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)	
Priority:	☒ High	☐ Medium	☐ Low
Alternatives:	No Action	Current problem exists	
	Utilize information from DWR	Owners may not be required to submit a safety plan to the State	
	Utilize information from the National Inventory of Dams	Not all dams are listed on the inventory	

Action 2026-Castle Rock-16. Comprehensive Outreach Program

Lead Agency:	Community Relations								
Supporting Agencies:	Town Council, Town Manager, County								
Hazard(s) of Concern:	☒ Dam Failure ☒ Drought ☒ Earthquake ☒ Flood ☒ Geologic Hazards	☒ Hazardous Materials ☒ Pandemic ☒ Severe Weather ☒ Wildfire							
Description of the Problem:	The Town currently does not have a comprehensive education and outreach program which addresses all identified hazards of concern. There is a need to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods.								
Description of the Solution:	Create outreach materials, or utilize those from Douglas County, on hazard risks and methods of mitigation measures. Methods of distribution may include Town events, the Town newsletters, social media, the Town website, and having the materials on display for the public at Town libraries and offices. Outreach materials will be specified with education and information for each individual hazard of concern.								
Estimated Cost:	Low								
Potential Funding Sources:	Town Budget								
Implementation Timeline:	1 year								
Goals Met:	3, 6								
Benefits:	This action will improve the current public education and outreach program in the Town by including discussions on disaster preparedness and hazard mitigation to residents and business owners, which will contribute to the resiliency of the Town.								
Impact on Future Development:	Not applicable								
Impact on Critical Facilities/Lifelines:	Businesses, which may be considered critical facilities or lifelines, would be more informed on how to prepare for emergency events and mitigate the risks of potential hazards. With these businesses becoming more resilient, this action would contribute to their continuity of operations.								
Impact on Capabilities:	This action would build upon the County's already existing public education and outreach program and adapt it to the Town's needs.								
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☒ Education and Awareness Programs (EAP)							
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☒ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)							
Priority:	☒ High	☐ Medium	☐ Low						
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th> <th>Current problem exists</th> </tr> </thead> <tbody> <tr> <td>Rely on state or federal resources</td> <td>Resources may be generalized and not specific to the risks in the Town</td> </tr> <tr> <td>Use only a few methods for distribution</td> <td>Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance</td> </tr> </tbody> </table>	No Action	Current problem exists	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Town	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance		
No Action	Current problem exists								
Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Town								
Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance								

5. TOWN OF LARKSPUR

This jurisdictional annex to the Douglas County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Town of Larkspur with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Larkspur, describes who participated in the planning process, assesses Larkspur's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

5.1 HAZARD MITIGATION PLANNING TEAM

The Town of Larkspur identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Town departments. The Town Manager represented the community on the Douglas County HMP Local Planning Committee and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 5-1 summarizes Town officials who participated in the development of the annex and in what capacity. Additional documentation of the Town's planning activities through Local Planning Committee meetings is included in Volume I.

Table 5-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Chris Rogowski, Town Manager Address: 8720 Spruce Mountain Road, Larkspur, CO 80118 Phone Number: 720-828-6208 Email: crogowski@townoflarkspur.org	Name/Title: Eric Usher, Public Works Director Address: 8720 Spruce Mountain Road, Larkspur, CO 80118 Phone Number: (303) 681-2324 Email: eusher@townoflarkspur.org
National Flood Insurance Program Floodplain Administrator	
Name/Title: Chris Rogowski, Town Manager Address: 8720 Spruce Mountain Road, Larkspur, CO 80118 Phone Number: 720-828-6208 Email: crogowski@townoflarkspur.org	
Additional Contributors	
Name/Title: Chris Rogowski, Town Manager Method of Participation: Provided information to support annex development. Provided status of previous mitigation actions and developed new mitigation actions for the plan.	

5.2 COMMUNITY PROFILE

5.2.1 Location

The Town of Larkspur is located between Castle Rock and the Tri-Lakes area. It is located in southern Douglas County on the west side of Interstate Highway 25, approximately 10 miles south of the Town of Castle Rock. The current boundaries generally extend from Exit 173 (Spruce Mountain Road to West Fox Farm Road) and the west

side of 1-25 on Perry Park Road just past the Colorado Renaissance Festival, encompassing an area of 1.59 sq miles.

5.2.1 History

The Town of Larkspur was incorporated in 1979. Before arrival of the pioneers, the Larkspur area was occupied by the Ute, Kiowa, Cheyenne, and Arapahoe tribes. What began as a stage stop along the Territorial Road soon became a resort and eventually a town (Town of Larkspur n.d.).

On January 22, 1862, a territorial post office was established at what was called Huntsville, Douglas County, Colorado named after Territorial Governor Alexander Hunt. The post office was discontinued on August 29, 1867 and re-established on April 8, 1869. With the arrival of the Rio Grande Railroad the name Huntsville was changed to Larkspur on December 13, 1871, by then Governor Edward McCook, for the abundant purple flowers growing in the area. Larkspur, rich in lumber, red sandstone, gypsum, and potash, prospered with the railroad and added two sawmills, a blacksmith shop, a hotel, two general stores, a school, and a casino (Town of Larkspur n.d.).

In 1916 the American Federation of Human Rights, a Co-Masonic Fraternal Order, purchased land in Larkspur and built their administration building which is still in use today. In 1965, Plum Creek, which runs along the east side of town, flooded and destroyed much of early Larkspur including the Carlson Frink Creamery. Larkspur was incorporated in 1979b (Town of Larkspur n.d.).

5.2.2 Governing Body

The Town of Larkspur operates as a Home Rule Municipality. The Town's City Council is made up of elected officials, including the Mayor, Vice Mayor, and five Council Members.

Development of this annex was carried out by the members of the local mitigation planning team, whose members are listed in Table 5-1.

5.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

Larkspur performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day local government operations. As part of the hazard mitigation analysis, planning and /policy documents were reviewed and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan

integration. Development of an updated mitigation strategy provided an opportunity for Larkspur to identify opportunities for integrating mitigation concepts into ongoing Town procedures.

5.3.1 Planning and Regulatory Capability and Integration

Table 5-2 summarizes the planning and regulatory tools that are available to Larkspur.

Table 5-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
CODES, ORDINANCES, & REGULATIONS				
Building Code	Yes	Chapter 18, Building Regulations, 2022	State and Local	Town Administration
How has or will this be integrated with the HMP and how does this reduce risk? The purpose of this Article is to establish the minimum requirements to safeguard the public health, safety and general welfare through structural strength, means of egress facilities, stability, sanitation, adequate light and ventilation, energy conservation and safety to life and property from fire and other hazards attributed to the built environment and to provide safety to fire fighters and emergency responders during emergency operations.				
Zoning/Land Use Code	Yes	Chapter 16, Zoning, 2016	Local	Town Administration
How has or will this be integrated with the HMP and how does this reduce risk? This Chapter and the regulations contained herein are adopted to promote the general health, safety and welfare, convenience and aesthetics of the present and future residents of the Town. This Chapter is currently in revision with an expected completion by mid-2026.				
Subdivision Code	Yes	Chapter 17, Subdivisions, 2016	Local	Town Administration
How has or will this be integrated with the HMP and how does this reduce risk? The purpose of this Chapter is as follows: (1)To establish accurate records of land subdivision.(2)To logically relate the development of newly developed or annexed land to existing development within the Town.(3)To facilitate the development of adjoining tracts.(4)To provide for adequate, safe and efficient public utilities, improvements, community facilities and public places and parks.(5)To provide for protection from fire, flood and other natural dangers.(6)To provide that the cost of public improvements necessitated by any tract of land being developed be borne by the owners or developers of that tract.				
Site Plan Code	Yes	Chapter 16, Article 6 Site Plan Procedures and Standards, 2022	Local and County	Town Administration
How has or will this be integrated with the HMP and how does this reduce risk? The site plan standards set forth in this Article are in addition to any other development standards which may otherwise be applicable to a particular property or geographic area of the Town. In case of any conflict among applicable standards, the more restrictive standards shall apply. This Article is part of the Chapter revision with an expected completion by mid-2026.				
Stormwater Management Code	Yes	Chapter 17, Article 4, Storm Drainage, 2016	Local	Town Administration
How has or will this be integrated with the HMP and how does this reduce risk? Presented in this Article are the minimum design and technical criteria for the analysis and design of erosion control plans. All subdivisions, re-subdivisions, planned development or any other proposed construction which disturbs the surface of the land shall conform to the criteria set forth herein. Additional best management practices, as specified in the Urban Drainage and Flood Control District's Urban Storm Drainage Criteria Manual, Vol. 3, "Erosion Control During Construction," may be utilized with the approval of the Town Engineer. Other options to the provisions of this				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency

Article may be suggested, but the burden of proof that the options are equal or better is the responsibility of the applicant.

Post-Disaster Recovery/ Reconstruction Code	No	-	-	-

How has or will this be integrated with the HMP and how does this reduce risk?

Real Estate Disclosure Requirements	Yes	C.R.S. 38-35.7-102	State	Sellers and Landlords of commercial or residential property

How has or will this be integrated with the HMP and how does this reduce risk?

In Colorado, real estate transactions involving properties located in flood zones are subject to specific disclosure requirements. Sellers must disclose any known flood damage to the property, which includes past flooding experiences, the presence of a floodplain, and whether the property is covered by flood insurance. Failure to disclose this information can lead to legal repercussions, including claims of misrepresentation or fraud. Sellers are required to provide buyers with access to the current Flood Insurance Rate Map (FIRM) and any related documentation that outlines the specific flood risk associated with the property. This transparency is crucial for buyers to make informed decisions and understand their liabilities regarding flood insurance and the potential for future flooding events.

Growth Management	Yes	2025 Larkspur Town Master Plan; 3-Mile Plan	Local	Town Administration

How has or will this be integrated with the HMP and how does this reduce risk?

The Town has a newly revised 2025 Larkspur Town Master Plan. The Town also has a 3-Mile Plan which is updated annually. Both documents provide guidance to Town leadership when making decisions regarding future growth to ensure that development is managed with an eye towards sound risk management practices.

Environmental Protection Ordinance(s)	No	-	-	-

How has or will this be integrated with the HMP and how does this reduce risk?

Flood Damage Prevention Ordinance	Yes	Chapter 16, Article 14, Flood Damage Prevention	Federal, State, County and Local	Floodplain Administrator

How has or will this be integrated with the HMP and how does this reduce risk?

The Town identifies flood hazard areas as areas subject to periodic inundation that can result in loss of life and property, health and safety hazards, disruption of commerce and governmental services and extraordinary public expenditures for flood protection and relief, all of which adversely affect the health, safety and general welfare of the public. To accomplish this, the Town uses the following methods:(1)Restrict or prohibit uses that are dangerous to health, safety or property in times of flood, or cause excessive increases in flood heights or velocities.(2)Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction.(3)Control the alteration of natural floodplains, stream channels and natural protective barriers which are involved in the accommodation of floodwaters.(4)Control filling, grading, dredging and other development which may increase flood damage.(5)Prevent or regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands. This Article is part of the Chapter revision with an expected completion by mid-2026.

Wellhead Protection	No	-	-	-

How has or will this be integrated with the HMP and how does this reduce risk?

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Emergency Management Ordinance	Yes	Chapter 2, Article 4, Emergency Response Authority	Local	Larkspur Fire Protection District
How has or will this be integrated with the HMP and how does this reduce risk? The Larkspur Fire Protection District is hereby designated as the Emergency Response Authority for hazardous material incidents within the Town. The Emergency Response Authority shall provide emergency response to hazardous material incidents by taking initial emergency action necessary to minimize the effects of a hazardous material incident and by exercising continuing supervisory authority over all further efforts to eliminate the threat of immediate and irreparable harm to the environment or the public health and safety.				
Climate Change Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
PLANNING DOCUMENTS				
General/Comprehensive Plan	Yes	Town of Larkspur Comprehensive Master Plan, 2025	Local	Town Administration
How has or will this be integrated with the HMP and how does this reduce risk? The Town of Larkspur is responsible for compiling, adopting, implementing and updating the Comprehensive Master Plan throughout the planning area. As part of that responsibility, the Town must require developers within the Town boundaries to comply with specific criteria for the construction of any project.				
Capital Improvement Plan	Yes	2025 Adopted Budget	Local	Town Administration
How has or will this be integrated with the HMP and how does this reduce risk? The budget contains an appendix with the Capital Improvement Plan that forecasts out over several years the expected capital expenditures. It allows the Town to manage and plan for large expenses, thereby reducing the risk of being unable to afford necessary improvements and upgrades to critical infrastructure.				
Disaster Debris Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Floodplain Management or Watershed Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Stormwater Management Plan	Yes	Douglas County's Stormwater Management Guidelines	County	Floodplain Administrator
How has or will this be integrated with the HMP and how does this reduce risk? The Town has adopted Douglas County's Stormwater Management Guidelines and applies the same for managing stormwater.				
Open Space Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Urban Water Management Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Habitat Conservation Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Economic Development Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Community Wildfire Protection Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Community Forest Management Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Transportation Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Agriculture Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Climate Action/ Resilience/Sustainability Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Tourism Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Business/ Downtown Development Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Other How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
RESPONSE/RECOVERY PLANNING				
Emergency Operations Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Continuity of Operations Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Substantial Damage Response Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Threat and Hazard Identification and Risk Assessment How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Post-Disaster Recovery Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Public Health Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Other How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-

5.3.2 Development and Permitting Capability

Table 5-3 summarizes the capabilities of Larkspur to oversee and track development.

Table 5-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits?	Yes	-
- If you issue development permits, what department is responsible? - If you do not issue development permits, what is your process for tracking new development?	-	For any development projects, we have a formal site plan review and approval process. This functions as our development permit and is administered by Town Staff with Town Council as the approval authority.
Are permits tracked by hazard area? (For example, floodplain development permits.)	No	We don't track permits by hazard area, but we have very few to begin with. Any construction or development in the floodplain area would require a floodplain permit and we can easily identify those permits.
Do you have a buildable land inventory? If you have a buildable land inventory, please describe	No	-
Describe the level of buildout in your jurisdiction.	N/A	Larkspur only has a few projects that are under review or in the works and are projects that are

	Yes/No	Comment
		utilizing existing structures. 12 acres of buildable commercial property yet to be developed.

5.3.3 Administrative and Technical Capability

Table 5-4 summarizes potential staff and personnel resources available to Larkspur and their current responsibilities that contribute to hazard mitigation.

Table 5-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
ADMINISTRATIVE CAPABILITY		
Planning Board	Yes	The Town of Larkspur has a Planning Commission made up of resident volunteers whose purpose is to review all land use applications and make formal recommendations to the Town Council. The Planning Commission volunteers are appointed by the Larkspur Town Council.
Zoning Board of Adjustment	Yes	The purpose of the Board of Adjustment shall be to provide for the ability to consider requests for special exceptions to the terms of the Larkspur Town Code in conformity with its general purpose and intent.
Planning Department	Yes	The Planning and Development Department is completed in-house and managed by the Town Manager. On occasion, the Town contracts out to a professional planner to assist with large, complex projects.
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	Yes	The Town Code provides for an Economic Development Board, but it is currently inactive.
Public Works/Highway Department	Yes	The Public Works Department is responsible for maintaining Town roads and the Park. The Town contracts out for management of its water and sewer services.
Construction/Building/Code Enforcement Department	Yes	Building permits and inspections are issued via SAFEBuilt. Code enforcement handles in-house through the Town Manager and Town Council.
Emergency Management/Public Safety Department	No	-
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	Such programs are handled in-house via Town Staff as the need arises. Where necessary, we send projects out to bid for services beyond the capabilities of the Staff.
Mutual aid agreements	Yes	With the County
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	-

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Other	No	-
TECHNICAL/STAFFING CAPABILITY		
Planners or engineers with knowledge of land development and land management practices	Yes	GMS Engineering
Engineers or professionals trained in building or infrastructure construction practices	Yes	GMS Engineering
Planners or engineers with an understanding of natural hazards	Yes	GMS Engineering; SAFEBuilt Planner
Staff with expertise or training in benefit/cost analysis	No	-
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazus applications	Yes	GMS Engineering
Staff that work with socially vulnerable populations or underserved communities	No	-
Environmental scientists familiar with natural hazards	No	-
Surveyors	Yes	Archer and Associates
Emergency manager	No	Coordinate with County, Sheriff, and Larkspur Fire Protection District
Grant writers	No	Hire on an as needed basis
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

5.3.4 Fiscal Capability

Table 5-5 summarizes financial resources available to Larkspur.

Table 5-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas, or electric service	Yes, water and sewer; no stormwater service fees
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	No

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	No
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

5.3.5 Education and Outreach Capability

Table 5-6 summarizes the education and outreach resources available to Larkspur.

Table 5-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	No	-
Personnel skilled or trained in website development	Yes	Contracted
Hazard mitigation information available on your website	No	-
Social media for hazard mitigation education and outreach	Yes	Facebook
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	Yes	Douglas County Emergency Alerts; CIRSA-provided hail event alerts
Natural disaster/safety programs in place for schools	N/A	There are no schools within the Town limits.
Organizations that conduct outreach to socially vulnerable populations and underserved populations	No	-
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	No	-

5.3.6 Community Classifications

Table 5-7 summarizes classifications for community programs available to Larkspur.

Table 5-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
National Weather Service StormReady Certification	No	-	-

Program	Participating? (Yes/No)	Classification	Date Classified
Firewise Communities classification	No	-	-
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable

5.4 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 5-1 is responsible for maintaining this information.

5.4.1 NFIP Statistics

Table 5-9 summarizes the NFIP policy and claim statistics for Larkspur.

Table 5-8. Larkspur NFIP Summary of Policy and Claim Statistics

Policies in Force	2
Paid Claims	0
# Repetitive Loss Properties (NFIP definition)	0
# Repetitive Loss Properties (FMA definition)	0
# Severe Repetitive Loss Properties	0

NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than \$1,000 were paid by the NFIP within any rolling 10-year period since 1978.

FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.

Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.

Source: FEMA 2025

5.4.2 Flood Vulnerability Summary

Table 5-10 provides a summary of the NFIP program in Larkspur.

Table 5-9. NFIP Summary

NFIP Topic	Comments
Flood Vulnerability Summary	

NFIP Topic	Comments
Describe areas prone to flooding in your jurisdiction.	Along East Plum Creek it runs through part of the Town.
Do you maintain a list of properties that have been damaged by flooding?	No, there are no properties at this time.
Do you maintain a list of property owners interested in flood mitigation?	No, not at this time.
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	Currently none, but if any approached the Town about mitigation, Town Staff would assist them.
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	No, not at this time.
How do you make Substantial Damage determinations?	Unknown
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	None at this time.
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	There are some properties that have been mitigated. All of them were funded privately by the owners.
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Yes, the flood maps adequately address flood risk in the Town.
NFIP Compliance	
What local department is responsible for floodplain management?	The planning function of Town Staff, managed by the Town Manager. We would inform someone if they required a floodplain development permit for their project.
Are any certified floodplain managers on staff in your jurisdiction?	No, not at this time.
Do you have access to resources to determine possible future flooding conditions from climate change?	No, not at this time.
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	Yes, training tailored to the specific features of Larkspur.
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	The Town provides permit reviews.
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	Town Staff will review the proposed development to make the determination.
What are the barriers to running an effective NFIP program in the community, if any?	None, currently.
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No, not at this time.
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	CAV: February 13, 1995 CAC: September 5, 2017

NFIP Topic	Comments
What is the local law number or municipal code of your flood damage prevention ordinance?	Larkspur Municipal Code Chapter 16, Article 14.
What is the date that your flood damage prevention ordinance was last amended?	7-21-2016 (Currently under revision).
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	Meets; The Town of Larkspur does not allow structures in the FEMA Special Flood Hazard Area (SFHA). There may be situations where Pre-FIRM structures or structures placed in the SFHA through updated floodplain studies would be substantially improved. If that situation were to arise, the Town would follow all NFIP requirements for construction in the SFHA, including requiring the lowest floor and utilities be elevated at least one foot above the BFE and requiring and maintaining a copy of an Elevation Certificate.
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	No, not at this time.
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	No, not at this time.

5.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 5-11 through Table 5-13.

Table 5-10. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
2020				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
2021				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
2022				
Total Permits	1	0	1	2
Permits within SFHA	0	0	0	0
2023				

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
2024				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0

SFHA = Special Flood Hazard Area (1% flood event)

Table 5-11. Recent Major Development and Infrastructure from 2020 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones	Description / Status of Development
There has not been any recent major development or infrastructure constructed in the Town from 2020 to present.					

Table 5-12. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones	Description / Status of Development
There is not any known or anticipated major development or infrastructure project for the next five years.					

5.6 JURISDICTIONAL RISK ASSESSMENT

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Larkspur's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

5.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Town are shown in Figure 5-1 through Figure 5-2. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Larkspur has significant exposure. The maps show the location of potential new development, where available.

Figure 5-1. Larkspur Hazard Area Extent and Location Map 1

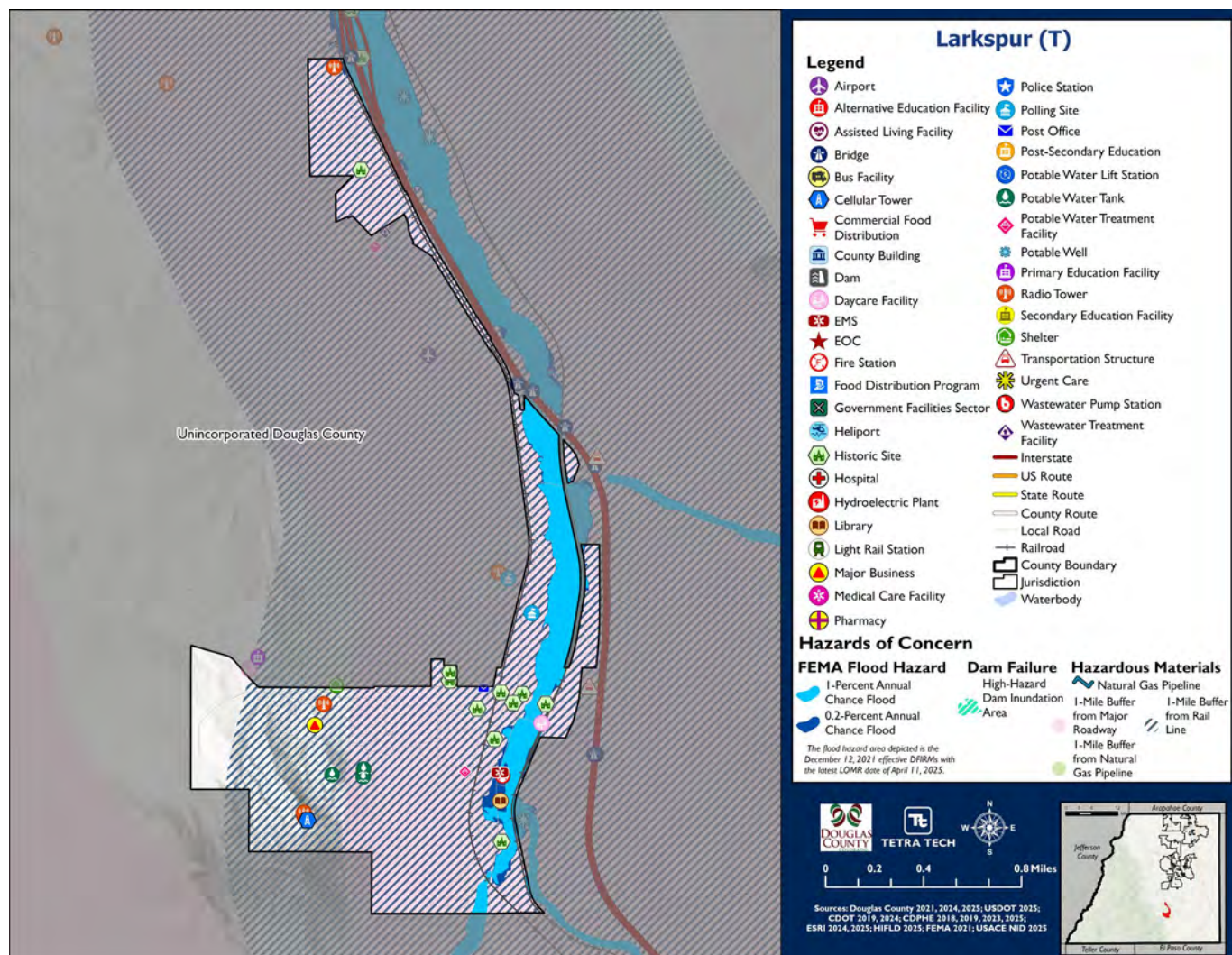
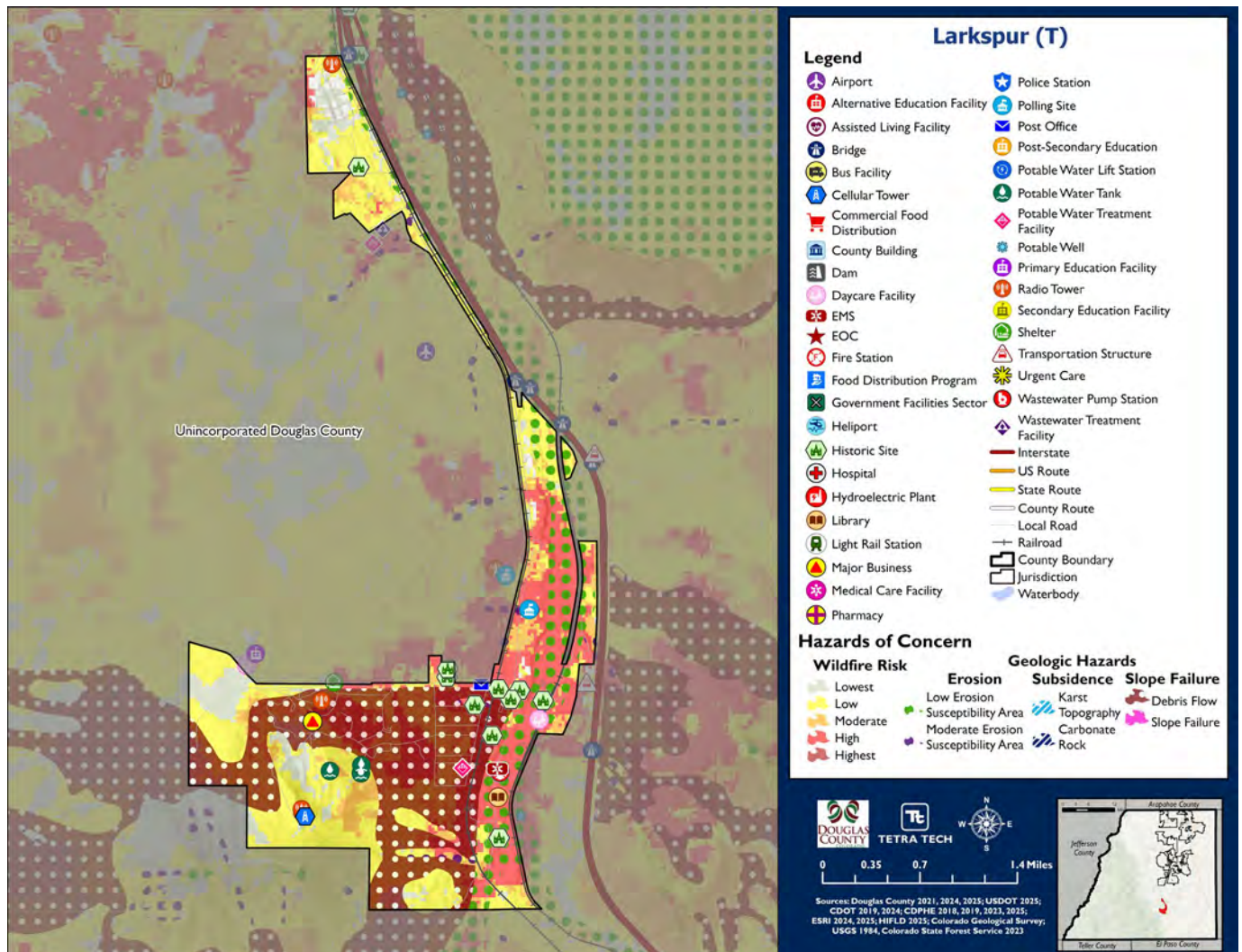


Figure 5-2. Larkspur Hazard Area Extent and Location Map 2



5.6.2 Hazard Event History

The history of natural and non-natural hazard events in Larkspur is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its jurisdictions. Table 5-14 provides details on loss and damage in Larkspur during hazard events since the last hazard mitigation plan update.

Table 5-13. Hazard Event History in Larkspur

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses
September 6, 2019	Severe Weather	N/A	Severe thunderstorms produced a combination of large hail (1.25 inches) and heavy rain. A brief tornado touched down in an open field near Highlands Ranch. A blast of lightning triggered a house fire in Douglas County, causing extensive damage.	No recordable loss or damages to the Town.
October 29-30, 2019	Severe Weather	N/A	A winter storm brought record breaking temperatures and up to a foot of snow. Numerous schools were closed due to heavy snow and hazardous road conditions. Storm totals included: 10 inches near Parker; 7.5 inches near Castle Pine.	It closed the highway and created transportation issues for residents, but the Town doesn't have any recorded damages or losses.
January 20, 2020 - May 11, 2023	Pandemic EM-3436-CO, DR-4498-CO	Yes	During the COVID-19 pandemic disaster declaration, there were a reported 102,146 cases of COVID-19 and 527 COVID-19 related deaths in Douglas County.	No deaths of any Town residents recorded. Experienced a loss of almost \$0.5 million in revenue due to the closure of the Renaissance Festival.
March 13-14, 2021	Severe Weather	N/A	Strong winds compounded with heavy snowfall made the roadways impassable in the afternoon and evening. Peak wind gusts to 48 mph produced extensive drifting snow. Drifts ranged from 3 to 6 feet deep. The heavy wet snow caused extensive tree damage and produced power outages.	No recordable loss or damages to the Town.
November - December 2021	Drought	N/A	Portions of the County were in a severe to extreme drought classification (D2/D3) through the months of November and December.	No recordable loss or damages to the Town.
December 1, 2022	Severe Weather	N/A	Significant Windstorm Affected the Town and caused some damage	\$28K in damage to roof of one of the Park restrooms and some of the playground equipment

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses
February 23, 2023	Severe Weather	N/A	Bands of moderate to heavy snow showers coupled with strong winds produced poor visibilities and hazardous driving conditions. During the morning hours on the 23rd, wind chill temperatures ranged from -25°F to -30°F.	No recordable loss or damages to the Town.
May 12-13, 2023	Flood	N/A	Swollen creeks and streams produced flooding and flash flooding. Numerous hiking trails in Castlewood Canyon State Park were closed as they were underwater and impassable. Three men in the foothills of Douglas County had to be rescued when their vehicle got stuck in snow along Rampart Range Road in Pike National Forest.	The flood washed out a bridge over Plum Creek and Douglas County assisted by repairing it for the Town. Several roads in Town needed significant repair. Several basements of residents were flooded.
June 22, 2023	Severe Weather DR-4731-CO	Yes	An EF1 tornado touched down just south of CO-470 in the city of Highlands Ranch. Preliminarily the tornado was on the ground for 6.3 miles. No injuries were reported but over 100 trees were downed. Some window/shingle damage has been noted to both houses and commercial properties. Up to 2.5 inches hail occurred.	No recordable loss or damages to the Town.
January 13-16, 2024	Severe Weather	N/A	A long duration snowfall event occurred resulting in several feet of snow. Total snowfall accumulations across the urban corridor and northeast were light, with storm totals generally less than 6 inches, but the icy conditions did cause some travel impacts. Wind chill temperature dropped to -34°F; the record low of -19°F was tied on the morning of the 16th. Some of the plains locations dropped down to -30°F.	No recordable loss or damages to the Town.
June 9, 2024	Severe Weather, Flood	N/A	Slow moving thunderstorms produced hail (1.25 inches) and heavy rainfall. There were reports of cars being swamped due to rising waters.	No recordable loss or damages to the Town.
July 30 – August 7, 2024	Wildfire	N/A	A fire was contained August 7th after reaching about 579 acres. No structures were lost in the	No recordable loss or damages to the Town.

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses
			fire. Several firefighters were treated for heat exhaustion. Mandatory evacuations were ordered for the Deer Creek Mesa area and several subdivisions in the area of Ken Caryl.	

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

5.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Larkspur.

Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions. Larkspur reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Town agreed with the following preliminary hazard rankings as identified in Table 5-15.

Table 5-15 shows Larkspur's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 5-14. Hazard Ranking

Hazard	Rank
Dam Failure	Low
Drought	High
Earthquake	Low
Flood	Medium
Geologic Hazards	Medium
Hazardous Materials	Medium
Pandemic	Medium
Severe Weather	High
Wildfire	High

Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction

Critical Facilities

Table 5-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 5-15. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Event	0.2% Event		
Larkspur Fire Protection District	Polling Site	No	Yes	-	Yes. The facility is newly constructed and was built to the standards which permitted construction in the 500-year flood area.
Larkspur Fire Station	Fire Station	No	Yes	-	Yes. The facility is newly constructed and was built to the standards which permitted construction in the 500-year flood area.
Larkspur FPD	EMS	No	Yes	-	Yes. The facility is newly constructed and was built to the standards which permitted construction in the 500-year flood area.

Source: Douglas County; CDOT; CDPHE; ESRI; HIFLD; US Energy Information Administration; FEMA

5.6.4 Identified Issues

After a review of Larkspur's hazard event history, hazard rankings, hazard location, and current capabilities, Larkspur identified the following vulnerabilities within the community:

- Some of the stormwater culverts that service the properties along Spruce Mountain Road require clearing. Some are overgrown with vegetation, and some have become clogged with sediment from rain and snow runoff.
- The Town is limited in its ability to notify all residents in the event of a disaster or to raise public awareness on issues. Not all residents have signed up for Town text message notifications or Douglas County emergency notifications, and the Town is limited in its ability to notify residents via other means.
- Fire mitigation (on both Town property and private property) is an ongoing concern. A significant portion of Larkspur is forested and adjacent to forested areas. Resources are limited to conduct fire mitigation, and more outreach is needed to educate residents on the importance of mitigation measures.
- The Town does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The Town is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.

5.7 MITIGATION STRATEGY AND PRIORITIZATION

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

5.7.1 Past Mitigation Action Status

Table 5-17 indicates progress on the Town's mitigation strategy identified in the 2021 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

5.7.2 Additional Mitigation Efforts

Larkspur did not identify any additional mitigation efforts completed since the last HMP.

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Table 5-16. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
Action LR1	Stream Clearing	Flood, Severe Weather	Larkspur Fire Dept, Douglas County Sheriff's Department	Lead and develop a county-wide stream clearing strategy including the development of thresholds for response / action. Clear fuels (dry underbrush, diseased trees) on land that can trigger and maintain wildfires.	1. No Progress 2. Discontinue. Action does not fall into purview of the Fire District.	1. Discontinue 2. Not applicable 3. Action does not fall into purview of the Fire District.
Action LR2	Wildfire Fuel Clearing	Wildfire	Larkspur Fire Dept, Douglas County Sheriff's Department	Clear fuels (dry underbrush, diseased trees) on land that can trigger and maintain wildfires, Implement Best Management Practices on public lands.	1. Ongoing 2. LFPD and Town will work together to continue identifying public areas for wildfire mitigation. LFPD and Town will continue public outreach programs to educate residents on mitigation strategies	1. Discontinue 2. Not applicable 3. Ongoing action
Action LR3	Fire Mitigation	Wildfire	the Colorado State Forest Service, Larkspur Fire Department	Working with Yogi Bear's Jellystone Park and RV Camp, the Town will establish and implement a plan of fire mitigation for their property.	1. Ongoing 2. LFPD Fire Marshal will work with Jellystone to help them identify mitigation strategies that Jellystone can undertake.	1. Discontinue 2. Not applicable 3. Ongoing action
Action LR4	Support Douglas County citizen disaster preparedness guide	All Hazards	Larkspur Fire Dep., Douglas County Sheriff's Dept	Support Douglas County citizen disaster preparedness guide. Provide technical information and guidance on appropriate mitigation options available to businesses and homeowners	1. Complete 2. LFPD provided input to the latest disaster prep guide and remains a resource available for input to future editions	1. Discontinue 2. Not applicable 3. LFPD provided input to the latest disaster prep guide and remains a resource available for input to future editions
Action LR5	Increase communication alternatives for early warning	All Hazards	Town Administration, Douglas County Sheriff's Dept	Increase communication alternatives for early warning systems for the Town.	1. No Progress 2. No research performed	1. Include in 2026 HMP 2. N/A 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
	systems for the Town					
Action LR6	Cleaning Regulations	Pandemic	Town Administration, Douglas County	Following current Tri County Health and state of Colorado guidelines and mandates. To reduce vulnerability to the hazard, Increasing regular cleaning of work environments, Increase Capability: Storage of PPE Equipment for monitoring/treatment Trainings for staff Public outreach.	1. Completed. 2. Public Works cleans all Town-owned facilities on a weekly basis. They are trained on and wear appropriate PPE when performing their duties.	1. Discontinue 2. N/A 3. Completed.
Action LR7	Flood Reduction	Flood	Town Administration, Douglas County	Incorporate retrofitting / replacement of critical facilities and infrastructure in Capital Improvement Plans (CIPs), Promote the use of vegetation/plants as green erosion control measure to reduce localized flooding. Establish stream maintenance programs with stakeholders (e.g. Soil and Water Conservation District)	1. No Progress 2. No facilities are at risk to the flood hazard.	1. Discontinue 2. N/A 3. No facilities are at risk to the flood hazard.
Action LR8	Tree Mitigation	Severe Weather, Earthquake	Town Administration	Trimming trees back from power lines, Adopt ordinances that regulate the type and quantity of trees planted near utility lines	1. Complete 2. CORE Electric accomplishes the tree trimming. CORE also has established guidelines for type and quantity of tree planting. Landowners are required to obtain CORE approval prior to any tree	1. Discontinue 2. N/A 3. Completed

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
					planting within the established zone surrounding power lines.	
Action LR9	Fire Hydrant Improvements	Wildfire	Town Administration, Larkspur Fire Dept	Create and maintain defensible space around structure and infrastructure, Evaluate and repair water main supply and hydrants. Add or replace new Hydrants as needed. Develop Community Wildfire Protection Plan.	1. Complete. Community Wildfire Protection Plan was developed in 2021. 2. Town fire hydrants are inspected and tested yearly. Repairs and replacements are made at that time and the defensible space is evaluated and maintained in conjunction with the evaluations.	1. Discontinue. 2. Not applicable 3. Town fire hydrants are inspected and tested yearly. Repairs and replacements are made at that time and the defensible space is evaluated and maintained in conjunction with the evaluations.
Action LR10	Backup Power	All Hazards	Town Administration, Larkspur Fire Dept	Provide backup power sources at vital critical facilities, Develop or enhance the capacity/capability of stormwater conveyance systems.	1. Complete 2. A backup generator has been installed at the Larkspur Water Treatment facility to provide backup power in the event of a main power failure.	1. Discontinue 2. N/A 3. A backup generator has been installed at the Larkspur Water Treatment facility to provide backup power in the event of a main power failure.
Action LR11	Douglas County Wildfire Partnership	Wildfire	Town of Larkspur, DCWP	The Town of Larkspur intends to join the Douglas County Wildfire Partnership (DCWP). Larkspur along with Douglas County FIRE DEPT/DIV] and various state, federal, NGO, and private stakeholders, will work with the Partnership to assess impact from wildfire; identify opportunities to maintain continuity of operations; and develop a comprehensive mitigation strategy to identify projects that will reduce wildfire risk,	1. Ongoing 2. The Town does not have the staffing capacity or expertise to join the DCWAC. The Larkspur Fire Protection District will represent the Town and coordinate as necessary on matters arising from the Collaborative.	1. Discontinue 2. N/A 3. Ongoing action

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				increase natural resource protection, encourage the incorporation of wildfire management principles into local planning, land use and building codes, and promote public awareness of wildfire risk.		

5.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Larkspur participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 “Selecting Appropriate Mitigation Measures for Floodprone Structures” (March 2007)
- FEMA “Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards” (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Larkspur would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in Town priorities.

Table 5-18 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 12 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 5-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.

Table 5-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure				X			X			
Drought				X			X			
Earthquake				X			X			
Flood	X			X	X	X	X			
Geologic Hazards				X			X			
Hazardous Materials				X			X			
Pandemic				X			X			
Severe Weather	X			X	X	X	X			
Wildfire				X			X			X

Local Plans and Regulations (LPR)—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

Structure and Infrastructure Project (SIP)—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

Natural Systems Protection (NSP)—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

Education and Awareness Programs (EAP)—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

Preventative Measures (PR)—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

Property Protection (PP)—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

Public Information (PI)—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

Natural Resource Protection (NR)—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

Structural Flood Control Projects (SP)—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

Emergency Services (ES)—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities

Table 5-18. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria													High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Administrative	Hazards of Concern	Timeline	Community Lifelines	Other Local Objectives	Total	
2026-Larkspur-01	Culvert Maintenance	1	1	1	1	1	1	0	1	1	1	1	0	11	High
2026-Larkspur-02	Emergency Notifications	1	1	1	1	1	1	0	1	1	1	1	1	12	High
2026-Larkspur-03	Wildfire Mitigation	1	1	1	1	1	1	0	1	1	1	1	1	12	High
2026-Larkspur-04	Substantial Damage Management Plan	1	1	1	1	1	1	1	1	1	1	1	0	13	High

Note: Volume I, Section 19 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-12).

Action 2026-Larkspur-01. Culvert Maintenance

Lead Agency:	Public Works		
Supporting Agencies:	County		
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☒ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☒ Severe Weather ☐ Wildfire		
Description of the Problem:	Some of the stormwater culverts that service the properties along Spruce Mountain Road require clearing. Some are overgrown with vegetation, and some have become clogged with sediment from rain and snow runoff.		
Description of the Solution:	Public Works will accomplish a thorough inventory of all the culverts and establish a regular inspection schedule. Culverts that require clearing will be done through a combination of in-house capability, possible assistance from the County, and outside contractors.		
Estimated Cost:	Low (staff time); TBD on structural updates		
Potential Funding Sources:	General funds, County assistance		
Implementation Timeline:	Ongoing maintenance		
Goals Met:	4, 7		
Benefits:	Overall flooding will be reduced, which will result in less frequency of road closures and reduced damage occurring to culverts and roadways during severe events. Businesses are likely to remain in place if they are able to remain open, or re-open sooner following a flood.		
Impact on Future Development:	Completing a culvert inventory and establishing regular inspections will reduce flooding risks, creating a safer environment for future development. This proactive approach helps protect new infrastructure and maintain property values.		
Impact on Critical Facilities/Lifelines:	Maintaining clear and functional culverts ensures reliable drainage, which protects roads, utilities, and emergency access routes. This minimizes disruptions to essential services during heavy rain or storm events.		
Impact on Capabilities:	Implementing a structured inspection and maintenance process strengthens the Town's ability to manage stormwater effectively. Leveraging partnerships with the County and contractors enhances operational capacity and resilience.		
Mitigation Category:	☒ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)		
CRS Category:	☒ Preventative Measures (PR) ☒ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)		
Priority:	☒ High ☐ Medium ☐ Low		
Alternatives:	No Action		Current problem exists
	Remove roadway		Roadway cannot be removed
	Remove the culverts		Not an option, loss of critical service, problem worsens.

Action 2026-Larkspur-02. Emergency Notifications

Lead Agency:	Town Administration		
Supporting Agencies:	Douglas County Sheriff's Office		
Hazard(s) of Concern:	☒ Dam Failure ☒ Drought ☒ Earthquake ☒ Flood ☒ Geologic Hazards	☒ Hazardous Materials ☒ Pandemic ☒ Severe Weather ☒ Wildfire	
Description of the Problem:	The Town is limited in its ability to notify all residents in the event of a disaster or to raise public awareness on issues. Not all residents have signed up for Town text message notifications or Douglas County emergency notifications, and the Town is limited in its ability to notify residents via other means.		
Description of the Solution:	The Town will contact TextMyGov to explore if there's a way to identify the people who sign up by address in order to create a comprehensive list of who we're able to contact. The Town will also implement a process to capture new residents' contact info—likely when they sign up for water/sewer. The Town will research and implement procedures for efficiently notifying residents in the event of a disaster.		
Estimated Cost:	Low (staff time)		
Potential Funding Sources:	General funds, staff time		
Implementation Timeline:	Short (1-2 years); ongoing maintenance of list		
Goals Met:	1, 3, 4, 5, 6		
Benefits:	Notifying persons of an emergency in a timely manner can assist in saving and protecting people and property.		
Impact on Future Development:	Establishing a reliable resident notification system will improve safety and preparedness for new developments. Future projects can integrate this system into planning, ensuring residents receive timely alerts during emergencies.		
Impact on Critical Facilities/Lifelines:	Efficient communication during disasters helps protect critical facilities and lifelines by enabling rapid response and coordination. This reduces downtime for essential services like water, sewer, and emergency operations.		
Impact on Capabilities:	Implementing these procedures strengthens the Town's emergency communication capabilities. Capturing contact information and leveraging tools like TextMyGov enhances outreach, ensuring broader and faster dissemination of critical information.		
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☒ Education and Awareness Programs (EAP)	
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☒ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)	
Priority:	☒ High	☐ Medium	☐ Low
Alternatives:	No Action Alert persons door-to-door Rely on federal emergency notifications	Current problem exists Time consuming; may not have staffing; can cause a delay in notification. Not always locally pertinent and not for every hazard event.	

Action 2026-Larkspur-03. Wildfire Mitigation

Lead Agency:	Fire Department								
Supporting Agencies:	County								
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☐ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☒ Wildfire								
Description of the Problem:	Fire mitigation (on both Town property and private property) is an ongoing concern. A significant portion of Larkspur is forested and adjacent to forested areas. Resources are limited to conduct fire mitigation, and more outreach is needed to educate residents on the importance of mitigation measures.								
Description of the Solution:	The Town will reach out to LFPD to identify areas of concern and research possible solutions. The Town will also explore ways to create ongoing outreach programs to inform and educate residents regarding fire mitigation practices and resources.								
Estimated Cost:	Low (staff time)								
Potential Funding Sources:	General funds								
Implementation Timeline:	Ongoing								
Goals Met:	3, 4, 6								
Benefits:	This action will improve the current public education and outreach program by including discussions on disaster preparedness and hazard mitigation to residents and business owners, which will contribute to the resiliency of the Town.								
Impact on Future Development:	Implementing fire mitigation measures will reduce wildfire risk, creating a safer environment for new development. This encourages sustainable growth and protects property values by minimizing potential damage from fire hazards.								
Impact on Critical Facilities/Lifelines:	Enhanced fire mitigation will help safeguard essential infrastructure such as emergency services, utilities, and transportation routes. Protecting these lifelines ensures continuity of operations during and after wildfire events.								
Impact on Capabilities:	Collaborating with LFPD and establishing outreach programs will strengthen the Town's capacity for wildfire prevention and response. Increased community awareness and education will improve overall resilience and readiness.								
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☒ Education and Awareness Programs (EAP)								
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☒ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)								
Priority:	☒ High	☐ Medium	☐ Low						
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Rely on state or federal resources</td><td>Resources may be generalized and not specific to the risks in the Town</td></tr> <tr> <td>Use only a few methods for distribution</td><td>Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance</td></tr> </tbody> </table>			No Action	Current problem exists	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Town	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance
No Action	Current problem exists								
Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Town								
Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance								

Action 2026-Larkspur-04. Substantial Damage Management Plan

Lead Agency:	Floodplain Administrator								
Supporting Agencies:	Public Works								
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☒ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☐ Wildfire								
Description of the Problem:	Officials in NFIP-participating communities are responsible for regulating development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must: • Determine where the damage occurred within the community and if the damaged structures are in an SFHA. • Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration. • Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value. • Require permits for floodplain development. The Town does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The Town is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.								
Description of the Solution:	As staffing capacity and Town priorities allow, the municipality will develop a Substantial Damage Management Plan, following the six step planning process in 2021 <i>Developing a Substantial Damage Management Plan</i> (https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.								
Estimated Cost:	Low (staff time)								
Potential Funding Sources:	General funds, staff time								
Implementation Timeline:	Within 5 years to develop the plan; ongoing to maintain and update the plan								
Goals Met:	5								
Benefits:	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.								
Impact on Future Development:	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.								
Impact on Critical Facilities/Lifelines:	A Substantial Damage Management Plan would include all critical facilities and lifelines.								
Impact on Capabilities:	This action improves disaster recovery capabilities.								
Mitigation Category:	☒ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)								
CRS Category:	☒ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)								
Priority:	☒ High ☐ Medium ☐ Low								
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Rely on state or federal resources following disaster events</td><td>Resources may not be available during major widespread events</td></tr> <tr> <td>Establish MOUs with outside agencies to conduct SD Determinations</td><td>A plan outlining responsibilities is still necessary to prevent missing requirements</td></tr> </tbody> </table>			No Action	Current problem exists	Rely on state or federal resources following disaster events	Resources may not be available during major widespread events	Establish MOUs with outside agencies to conduct SD Determinations	A plan outlining responsibilities is still necessary to prevent missing requirements
No Action	Current problem exists								
Rely on state or federal resources following disaster events	Resources may not be available during major widespread events								
Establish MOUs with outside agencies to conduct SD Determinations	A plan outlining responsibilities is still necessary to prevent missing requirements								

6. CITY OF LONE TREE

This jurisdictional annex to the Douglas County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the City of Lone Tree with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Lone Tree, describes who participated in the planning process, assesses Lone Tree's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

6.1 HAZARD MITIGATION PLANNING TEAM

The City of Lone Tree identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many City departments. The Senior Management Analyst with the Emergency and Risk Managers Office represented the community on the Douglas County HMP Local Planning Committee and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 6-1 summarizes City officials who participated in the development of the annex and in what capacity. Additional documentation of the City's planning activities through Local Planning Committee meetings is included in Volume I.

Table 6-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Arielle Cronin, Senior Management Analyst, Emergency and Risk Manager, City Manager's Office Address: 9220 Kimmer Dr., Suite 100, Lone Tree, Colorado 80124 Phone Number: 720-509-1259 Email: arielle.cronin@cityoflonetree.com	Name/Title: Jacob James, Deputy Director of Public Works - Engineering Address: 9220 Kimmer Dr., Suite 100, Lone Tree, Colorado 80124 Phone Number: 303-708-1818 Email: jacob.james@cityoflonetree.com
National Flood Insurance Program Floodplain Administrator	
Name/Title: Jacob James, Deputy Director of Public Works - Engineering Address: 9220 Kimmer Dr., Suite 100, Lone Tree, Colorado 80124 Phone Number: 303-708-1818 Email: jacob.james@cityoflonetree.com	
Additional Contributors	
Name/Title: Roshana Floyd, Planning Manager Method of Participation: Provided input on mitigation action development for the City; attended meetings.	
Name/Title: Duncan Rady, Stormwater Engineer Method of Participation: Provided input on mitigation action development for the City; attended meetings.	
Name/Title: Scott VanDenBerg, Operations Lieutenant Method of Participation: Provided input on mitigation action development for the City; attended meetings.	
Name/Title: Ian Corder, Planner Method of Participation: Attended meetings.	
Name/Title: Maureen Welsh, Senior Planner	

Method of Participation: Provided input on mitigation action development for the City.

Name/Title: Matt Archer, Chief Building Official

Method of Participation: Provided input on mitigation action development for the City.

6.2 COMMUNITY PROFILE

6.2.1 Location

The City of Lone Tree, in northern Douglas County, is located due south of Colorado State Highway 470 and is bisected by Interstate 25. The current boundaries generally extend from Highlands Ranch to the west, the City of Centennial to the north, unincorporated Douglas County and the Town of Parker to the east, and low density residential, open space and undeveloped land in Douglas County to the south. Lone Tree comprises 9.8 square miles. The land consists of a wide range of topography encompassing mountain vistas, hills, and grass covered plains. Because of the City's position in the Denver metro area and multi-modal transportation facilities, the area is desirous to new residents.

6.2.2 History

The City of Lone Tree was incorporated in 1995. The City's website states that "A major impetus for incorporation was resident's concerns relating to land use, the quality of development along the C-470 corridor, and their desire for greater input over development decisions affecting their future. Through the tireless efforts of dedicated residents, the decision to incorporate was carefully evaluated, and through a vote of the electorate, was determined to be in the best interest of the community. Initially, the City boundary followed that of the Park Meadows Metropolitan District and consisted of the subdivision of Lone Tree and surrounding developments, and some commercial development along C-470. In only a short amount of time, the City has grown and changed in a number of important ways, consistent with its vision for growth."

6.2.3 Governing Body

The City of Lone Tree operates through five elected officials, including the mayor and four Council Members. While the mayor serves at-large, the Council Members represent one of two districts in Lone Tree. Each elected official serves a four-year term and is able to serve two consecutive terms (8 years).

Development of this annex was carried out by the members of the local mitigation planning team, whose members are listed in Table 6-1.

6.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

Lone Tree performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities

- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day local government operations. As part of the hazard mitigation analysis, planning and /policy documents were reviewed and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. Development of an updated mitigation strategy provided an opportunity for Lone Tree to identify opportunities for integrating mitigation concepts into ongoing City procedures.

6.3.1 Planning and Regulatory Capability and Integration

Table 6-2 summarizes the planning and regulatory tools that are available to Lone Tree.

Table 6-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
CODES, ORDINANCES, & REGULATIONS				
Building Code	Yes	Chapter 18, Building Regulations, 2022 (Ord. No. 22-07)	State and Local	Community Development
How has or will this be integrated with the HMP and how does this reduce risk? The purpose of these codes is to establish minimum requirements to safeguard the public safety, health and general welfare through affordability, structural strength, means of egressing facilities, stability, sanitation, light and ventilation, energy conservation and safety to life and property from fire and other hazards attributed to the built environment, and to provide a reasonable level of life safety to fire fighters and emergency responders during emergency operations. In 2022, the City adopted the 2021 International Building and Fire Code with Amendments. Integration opportunities will be considered as part of the next cycle of code updates planned in 2026. Building Code provides the Building Official with the authority to require additional geologic testing in areas of steep slopes or geological hazards. The Building Division, housed within the Community Development Department, is led by a full-time Chief Building Official and five additional staff members.				
Zoning/Land Use Code	Yes	Chapter 16, Zoning, 2023 (Ord. No. 23-06)	Local	Community Development
How has or will this be integrated with the HMP and how does this reduce risk? Chapter 16 of the Lone Tree Municipal Code establishes land use classifications, divides the City into districts and imposes regulations, prohibitions, procedures and restrictions intended to promote the health, safety, convenience, aesthetics and welfare of the present and future inhabitants of the City. This Chapter governs the use of land for residential and nonresidential purposes, regulates and limit the height and bulk of buildings and other structures, limits lot occupancy, determines the setbacks and provides for open space by: (1) Establishing standards of performance and design;(2) Adopting an official zoning map;(3) Prescribing procedures for changes and modifications of zoning districts and for uses by special review, variances and other permits;(4) (5) requiring studies and reports to facilitate the city's assessment of development proposals; such studies and reports may include, but not be limited to, an assessment of wildfire risk, slope failure risk, drainage and erosion concerns, impacts to native vegetation and wildlife habitat, and evacuation routes; and(6)Prescribing penalties for violation of its provision.				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Subdivision Code	Yes	Chapter 17, Subdivisions, 2023 (Ord. No. 23-07)	Local	Community Development

How has or will this be integrated with the HMP and how does this reduce risk?

Chapter 17 of the Lone Tree Municipal Code is intended to achieve the following purposes:

(1) To promote the general health, safety and welfare of the present and future inhabitants of the City. Land proposed for subdivision shall be such that it can be used safely for the intended purpose without danger to health or peril from fire, flood, geologic hazards or other natural hazards.

(2) To ensure that the necessary services and facilities are available and have sufficient capacity to serve the proposed subdivision. Land proposed for subdivision shall not be approved until the necessary provisions have been made for: road improvements, access and traffic controls; water supply and wastewater disposal; police and fire protection; parks, trails and recreation; drainage and water quality and other reasonably necessary improvements and services. The cost and installation of such improvements, which primarily benefit the land being subdivided, shall be borne by the owners/developers of such land.

(3) To provide for the preservation and conservation of unique or distinctive natural areas, topographic features and landmarks; significant stands of vegetation; critical wildlife habitats, including breeding grounds, nesting areas, migration routes and wintering areas; drainage, riparian and wetland areas; scenic views; historic features and archeologically sensitive sites as determined by the City, recognizing the irreplaceable character of such resources and their importance to the quality of life in the City.

(4) To design subdivisions with lots that are of an appropriate size and configuration for the site and natural resources characteristics and intended uses with: adequate connections between neighborhoods, services, shopping and recreational areas when possible; a road system designed to preserve the integrity and function of the roadway network and stream network and corridors, and to minimize road cuts, fills and site grading; the conservation of water, land and energy resources; and to encourage a diversity of housing types and densities in order to assure adequate housing for all persons. (5) To provide for an adequate and accurate system to record land subdivisions, ensuring proper legal descriptions and survey monumentation, in order to inform the public and especially future residents of the facts about the subdivision, thereby safeguarding the interests of the public, the homeowner, the subdivider and the City. Additionally, the city requires studies and reports to facilitate the city's assessment of development proposals; such studies and reports may include, but not be limited to, an assessment of wildfire risk, slope failure risk, drainage and erosion concerns, impacts to native vegetation and wildlife habitat, and evacuation routes.

Site Plan Code	Yes	Chapter 16, Article XXVII, Site Improvement Plan, 2022 (Ord. No. 22-02)	Local and County	Community Development

How has or will this be integrated with the HMP and how does this reduce risk?

The intent of this Site Improvement Plan (SIP) Article is to ensure compliance with the development and design standards and provisions of this Chapter through a development review and approval process to create a well-designed community that enhances the quality of life for citizens in keeping with the vision expressed in the City's Comprehensive Plan. Additionally, this article of code permits the city to require additional studies and reports to facilitate the city's assessment of development proposals; such studies and reports may include, but not be limited to, an assessment of wildfire risk, slope failure risk, drainage and erosion concerns, impacts to native vegetation and wildlife habitat, and evacuation routes.

Stormwater Management Code	Yes	Chapter 15, Article II Stormwater Management	Local	Public Works

How has or will this be integrated with the HMP and how does this reduce risk?

The Stormwater Management Code can be integrated with the HMP, by showing how Lone Tree already regulates stormwater runoff, drainage infrastructure, erosion control, and water quality. The Stormwater Code reduces risk through the following ways: flood hazard reduction, by regulating peak runoff rates and mitigating flash flood potential; erosion and sedimentation control; infrastructure resilience; and water quality and ecosystem protection.

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Post-Disaster Recovery/ Reconstruction Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Real Estate Disclosure Requirements	Yes	C.R.S. 38-35.7-102	State	Sellers and Landlords of commercial or residential property
How has or will this be integrated with the HMP and how does this reduce risk? In Colorado, real estate transactions involving properties located in flood zones are subject to specific disclosure requirements. Sellers must disclose any known flood damage to the property, which includes past flooding experiences, the presence of a floodplain, and whether the property is covered by flood insurance. Failure to disclose this information can lead to legal repercussions, including claims of misrepresentation or fraud. Sellers are required to provide buyers with access to the current Flood Insurance Rate Map (FIRM) and any related documentation that outlines the specific flood risk associated with the property. This transparency is crucial for buyers to make informed decisions and understand their liabilities regarding flood insurance and the potential for future flooding events. Additionally, major development within Lone Tree requires notification to adjacent landowners.				
Growth Management	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Environmental Protection Ordinance(s)	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Flood Damage Prevention Ordinance	Yes	Chapter 15, Article III, Flood Damage Prevention	Federal, State, County and Local	City Administration
How has or will this be integrated with the HMP and how does this reduce risk? Chapter 15 of the Code includes all allowable and prohibited activities within the SFHA which complies with the NFIP and State of Colorado requirements. The City's code also has a few higher regulatory standards as well. This section of the code is administered by the Public Works Department with enforcement assistance by the Community Development Department. The City requires permits for allowable uses in the floodplain and reviews all land use applications vs. applicable sections of the City's municipal code.				
Wellhead Protection	Yes	Utility Special Districts	Local	Utility Special Districts
How has or will this be integrated with the HMP and how does this reduce risk? Wellhead protection is managed by the special utility districts within the City of Lone Tree.				
Emergency Management Ordinance	No	Home Rule Charter: Emergency Management Procedures Authority	Local	City Administration
How has or will this be integrated with the HMP and how does this reduce risk? While the City of Lone Tree does not have a stand-alone ordinance that formally establishes an emergency management structure, the City does have emergency procedure authority through its Home Rule Charter and legal mechanisms in place to act swiftly in emergencies.				
Climate Change Ordinance	Yes	Chapter 16	Local	City Administration
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency

Although not specifically addressed as Climate Change policies, the City's fee schedule provides for reduced fees for Site Improvement Plan Amendments that include the addition of solar panels, as well as fee reductions for landscaping plans intended to transition existing landscaping to xeric treatments. Ch. 16 of City Code also allows for parking reductions for developments near transit locations to encourage the use of regional transportation. The City's Forestry Plan focuses on measures to increase the scope of the City's urban forest and ways to maintain its health and sustainability. Additionally, the City has a staff-led Sustainability Committee and a resident-led Sustainability Team. Additionally, the City's building code includes energy conservation measures.

Other	No	-	-	-

How has or will this be integrated with the HMP and how does this reduce risk?

PLANNING DOCUMENTS

General/Comprehensive Plan	Yes	Lone Tree Elevated, adopted February 4, 2025	Local	Community Development

How has or will this be integrated with the HMP and how does this reduce risk?

Goal #8 of Lone Tree Elevated focuses on ensuring Lone Tree is a "safe, prepared and healthy community;" Goal #9 focuses on developing (and retaining) Lone Tree as a resilient and sustainable community; Goal #10 commits the city to protecting its natural systems. To achieve these goals, Lone Tree Elevated includes strategic action items to guide plan implementation; these action items include, but are not limited to, (1) "developing landscaping and property maintenance standards to support water conservation, wildfire mitigation practices, and other public health and safety needs, (2) "coordinating with water districts regarding water supply planning initiatives in fulfillment of statutory obligations, and (3) "completing and implementing a Community Wildfire Protection Plan in coordination with community partners, consistent with the vision, goals, and objectives identified in the Comprehensive Plan. Note: Lone Tree's Community Wildfire Protection Plan was accepted by the State of Colorado and adopted by the City in June, 2025.

The city's land use plans do not permit development in the floodplain and, although development in wildfire risk areas is permitted, chapters 16 (zoning) and 17 (subdivision) of city code require additional studies and assessments for development proposed in wildfire risk areas. New subdivisions are also required to analyze slope failure risks, as well as impacts to wildlife and natural systems.

Capital Improvement Plan	Yes	Annually Adopted Budget	Local	City Administration

How has or will this be integrated with the HMP and how does this reduce risk?

The Five-Year Capital Projections is part of the annual budget and is approved by the City Council. This plan approves the current year and projects future investments in capital projects as directed by the City Council adopted "Capital Reserve Policy". Many of the projects in the projection are funded and executed in conjunction with other jurisdictions.

Disaster Debris Management Plan	Yes	Emergency Operations Plan Annex	Local	City Administration

How has or will this be integrated with the HMP and how does this reduce risk?

The City's Emergency Operations Plan dedicates an Annex to Debris removal. The City will rely upon contracted resources initially and will call upon a mutual aid agreement if organic assets are overwhelmed. In the event that a state of emergency is declared, the City may call upon state or federal resources.

Floodplain Management or Watershed Plan	Yes	Multiple Plans	Local	Mile High Flood District, Public Works

How has or will this be integrated with the HMP and how does this reduce risk?

Watershed plans are conducted for major drainageways through a partnership with the City and Mile High Flood District.

Stormwater Management Plan	No	-	-	-

How has or will this be integrated with the HMP and how does this reduce risk?

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
While the City does not currently have a Stormwater Management Plan, it does align with the MS4 Permit Program, which requires municipal stormwater to minimize pollutants before entering local waterways.				
Open Space Plan	No	-	Local	Community Development
How has or will this be integrated with the HMP and how does this reduce risk? While the City does not currently have an Open Space Plan, development of an open space master plan is an action item identified in the 2025 Comprehensive Plan, and the City plans to identify this as a goal in the HMP.				
Urban Water Management Plan	No	-	Local	Water Districts
How has or will this be integrated with the HMP and how does this reduce risk? Parker Water & Sanitation District and Southgate Water & Sanitation District - Lone Tree's water service providers - are responsible for urban water management.				
Habitat Conservation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk? While the city does not currently have a Habitat Conservation Plan, major development within Lone Tree requires a referral to the Colorado Division of Wildlife, and some developments are required to protect wildlife movement corridors and native habitats by nature of applicable Planned Development documents.				
Economic Development Plan	Yes	Comprehensive Plan	Local	City Administration
How has or will this be integrated with the HMP and how does this reduce risk? While the City does not currently have an Economic Development Plan, its development and implementation is an identified goal in the 2025 Comprehensive Plan. In addition, economic development goals and strategies are established through other City plans/directives, which provide for risk-reduction activities, such as outdoor lighting, Crime Prevention Through Environmental Design, street and sidewalk maintenance, property maintenance, and other public safety measures.				
Community Wildfire Protection Plan	Yes	Adopted in 2025	Local	City Administration
How has or will this be integrated with the HMP and how does this reduce risk? As a newly adopted plan, the CWPP will be integrated with the HMP by aligning certain goals and action items. The CWPP reduces risk by not only establishing risk-mitigation action items for the City and its organizational partners, but it also calls on the community as a whole to educate themselves on the existing risk and take action to protect lives and property.				
Community Forest Management Plan	Yes	Forestry Plan, 2018	Local	Community Development/City Forester
How has or will this be integrated with the HMP and how does this reduce risk? The Lone Tree Forestry Plan can be integrated into the HMP under natural resource protection strategies, since it promotes tree health, diversity, and long-term urban forest management. By reducing threats from pests, disease, and storm damage, and by enhancing stormwater control, air quality, and heat mitigation, the plan directly lowers community risks related to flooding, extreme weather, and environmental degradation.				
Transportation Plan	Yes	2020 Transportation Plan	Local	Public Works
How has or will this be integrated with the HMP and how does this reduce risk? As part of Lone Tree's 2020 Transportation Plan, the multimodal transportation goal references a few objectives towards guiding growth to safe locations:				
- Plan for future growth and cross-connectivity when designing and constructing transportation infrastructure in developments. - Ensure new development improvements support and complement existing infrastructure systems. - Incorporate emerging technology and innovation into transportation infrastructure to improve safety, efficiency, and communication.				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Additionally, the City's Active Transportation Plan (adopted in 2025) analyzes pedestrian connectivity throughout the city, with a focus on protecting safe pedestrian connections, as well as preserving open space areas and avoiding sensitive slopes.				
Agriculture Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk? While the City does not have agricultural uses, nor does it have an Agriculture Plan, the City's Design Guidelines and Standards for Landscaping encourage planting edible and/or fruit-bearing plants/trees in public areas. Additionally, the city has one community garden adjacent to Lone Tree Elementary; the garden is Managed by Denver Urban Gardens.				
Climate Action/ Resilience/Sustainability Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk? While the City doesn't currently have a stand-alone Climate Action/Sustainability plan, the internal Employee Sustainability Committee leads various communitywide sustainability efforts, which include outreach, community events, and the Community Sustainability Champion program. Examples of recent initiatives include a composting program for city offices and a hazardous materials drop-off event for the community. The city also provides recycling to its residents for free.				
Tourism Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Business/ Downtown Development Plan	Yes	2023 Urban Renewal Plan, 2022 Business Improvement District Operating Plan	Local	City Administration
How has or will this be integrated with the HMP and how does this reduce risk? The 2023 Urban Renewal Plan can be integrated under capability and redevelopment strategies, as it addresses deteriorating structures, unsafe site conditions, and inadequate infrastructure. By funding improvements to drainage, utilities, street layout, and building safety, the plan reduces risks to the community from hazards such as flooding, fire, and unsafe pedestrian environments, while also strengthening long-term resilience through revitalization. The 2022 Business Improvement District Operating Plan provides for various ongoing services, such as landscaping, drainage facility maintenance, snow removal, and lighting improvements, which help reduce hazard impacts by improving stormwater flow, preventing localized flooding, maintaining safe pedestrian and vehicle access during snow events, and enhancing public safety through lighting and traffic control devices.				
(Other) Noxious Weed Management	Yes	Noxious Weed Management Plan	Local	Community Development
How has or will this be integrated with the HMP and how does this reduce risk? The Noxious Weed Management Plan states risk-reduction capabilities are public outreach and education; evaluation of properties, of which can be done via mapping, which allows the City to identify, track and quantify populations within the City; and how best property owners can reduce their risks by implementing best management practices.				
RESPONSE/RECOVERY PLANNING				
Emergency Operations Plan	Yes	Emergency Operations Plan, 2024 Update	Local and County	City Administration
How has or will this be integrated with the HMP and how does this reduce risk? The Emergency Operations Plan was first adopted by City Council in 2019. The Emergency Manager updates the plan annually, and City Council formally reviews every three years. The EOP identifies potential hazards, partners and resources, and operational systems to support an emergency event. The plan was developed and integrated in conjunction with Douglas County and South Metro Fire and Rescue, who's responsible for fire protection and hazardous materials response in Lone Tree.				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Continuity of Operations Plan	Yes	Updated annually	Local	City Administration
How has or will this be integrated with the HMP and how does this reduce risk? The Continuity of Operations Plan was first adopted by City Council in 2019 and is reviewed and updated annually. The plan is unique to City operations and personnel and identifies various partners, services providers, and protocols for support.				
Substantial Damage Response Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Threat and Hazard Identification and Risk Assessment	Yes	Emergency Operations Plan	Local	City Administration
How has or will this be integrated with the HMP and how does this reduce risk? The Emergency Operations Plan contains a Threat and Hazard Identification and Risk Assessment. This assessment was developed and integrated in conjunction with the County as well as South Metro Fire and Rescue who has fire protection and hazardous materials response responsibilities in the City.				
Post-Disaster Recovery Plan	Yes	Emergency Operations Plan	Local	City Administration
How has or will this be integrated with the HMP and how does this reduce risk? The Emergency Operations Plan was prepared under the comprehensive emergency management concept, which includes recovery.				
Public Health Plan	Yes	Emergency Operations Plan	Local	City Administration
How has or will this be integrated with the HMP and how does this reduce risk? The Emergency Operations Plan contains a 'Health and Medical' annex that outlines the procedures and roles for which to respond in a public health event. The city also coordinates review of development proposals with the Douglas County Health Department where necessary.				
Other	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

6.3.2 Development and Permitting Capability

Table 6-3 summarizes the capabilities of Lone Tree to oversee and track development.

Table 6-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits?	Yes	-
- If you issue development permits, what department is responsible? - If you do not issue development permits, what is your process for tracking new development?	-	Building and Planning Divisions in the Community Development Department and Public Works Department
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	Floodplain development permits are tracked.
Do you have a buildable land inventory?	No	-

	Yes/No	Comment
If you have a buildable land inventory, please describe		
Describe the level of buildout in your jurisdiction.	N/A	Buildout of developable land within the City is currently at approximately 70%. The City has over 1,500 acres of dedicated open space, parks, and floodplain land inventory that are not considered developable. The majority of the 30% of remaining developable land inventory resides in the RidgeGate Planned Development District, and specifically, in that portion of the planned development area east of I-25.

6.3.3 Administrative and Technical Capability

Table 6-4 **Error! Reference source not found.** summarizes potential staff and personnel resources available to Lone Tree and their current responsibilities that contribute to hazard mitigation.

Table 6-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
ADMINISTRATIVE CAPABILITY		
Planning Board	Yes	The City of Lone Tree's Planning Commission consists of a maximum of seven citizens from broad backgrounds appointed by the City Council. The Planning Commission is primarily a recommending body that deliberates and makes recommendations to the City Council on land use applications and proposed planning documents and regulations. The Planning Commission has approval authority for select development types.
Zoning Board of Adjustment	Yes	The Board of Adjustment and Appeals may grant select variances from The Municipal Code, Chapter 16, Zoning. The Board may also hear and decide appeals from, and any administrative order, requirement, decision or determination made by an administrative official charged with the enforcement of zoning or made by the building official relative to the application of Chapter 18, Building Regulations. The Board is made up of five members appointed by the City Council.
Planning Department	Yes	The Planning Division is committed to serving Lone Tree by guiding its growth in ways that are consistent with its Comprehensive Plan and adopted plans and regulations, and that ensure sustainable development reflective of the community's values. In addition to reviewing development proposals, our team provides informed recommendations to the City's Planning Commission, City Council, and Board of Adjustment and Appeals on current and long-range planning projects and development regulations. The Planning Division consists of 6 team members.

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Mitigation Planning Committee	Yes	For the 2025 CWPP, a Core Team, comprised of City Staff and multiple external partners, was created to guide the development of the plan. That team continues its partnership in planning and implementing mitigation projects.
Environmental Board/Commission	No	-
Open Space Board/Committee	Yes	The City's Recreation Advisory Committee works closely with City staff and South Suburban Parks & Recreation District (SSPRD) to guide and enhance Lone Tree's parks and open space. The committee reviews various parks and open space projects with the Community Development team and is formally recognized as an advisory agent in certain master plans. In addition, the City maintains close partnerships with SSPRD, Rampart Range Metro District, and Douglas County, who manage and maintain parks and open space land throughout the city.
Economic Development Commission/Committee	Yes	While the City does not have an Economic Development Commission/Committee, the City does have Economic Development staff, led by the Director of Economic Development in the City Manager's Office, who works with several regional partners and internal departments and leads the City's economic development efforts. The ED also works closely with the Finance Department and City Administration, who manages the City's financial resources through diligent planning and transparency.
Public Works/Highway Department	Yes	The Public Works Department builds, maintains and oversees Lone Tree's infrastructure, facilities and many city services. Generally, these responsibilities include engineering review for new development, capital projects, permitting and inspections, stormwater management and transportation/traffic operations.
Construction/Building/Code Enforcement Department	Yes	The Community Development Department oversees all planning, building, and code and zoning compliance functions in the city. Together, our innovative team of professionals implements the community vision through outstanding customer service.
Emergency Management/Public Safety Department	Yes	The Lone Tree Police Department is committed to the safety of Lone Tree's residents, businesses, and visitors. In addition, the City's Emergency and Risk Manager is housed in the City Manager's Office, who collaborates with PD, internal departments, and external partners.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	Public Works performs routine maintenance on roadways, including snow plowing. The Code Compliance Officers oversee enforcement of code violations, such as tree trimming requirements, and works with partners and members of the community to meet compliance.
Mutual aid agreements	Yes	Douglas County
Human Resources Manual - Do any job descriptions specifically include identifying	No	-

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
or implementing mitigation projects or other efforts to reduce natural hazard risk?		
Other	Yes	Forestry and Landscaping
TECHNICAL/STAFFING CAPABILITY		
Planners or engineers with knowledge of land development and land management practices	Yes	Community Development: 2 AICP Public Works: 3 PEs and 1 AICP
Engineers or professionals trained in building or infrastructure construction practices	Yes	Community Development: 2 building officials Public Works: 3 PEs
Planners or engineers with an understanding of natural hazards	Yes	Public Works: 1 PE, CFM Community Development: 1 AICP, CFM
Staff with expertise or training in benefit/cost analysis	Yes	Finance/Budget Analyst
Professionals trained in conducting damage assessments	No	The City does not have staff current on conducting damage assessments, although we have pinned this as a goal for the coming year.
Personnel skilled or trained in GIS and/or Hazus applications	Yes	GIS Department
Staff that work with socially vulnerable populations or underserved communities	No	-
Environmental scientists familiar with natural hazards	No	-
Surveyors	Yes	Consultant
Emergency manager	Yes	The Emergency & Risk Manager, housed in the City Manager's Office, oversees emergency plans and related operations.
Grant writers	Yes	The Lone Tree Arts Center, Public Works Department, Police Department, Community Development Department, City Clerk's Office, and City Manager's Office all have staff with grant writing experience.
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	Yes	The City's Stormwater Engineer position was created in January 2024.

6.3.4 Fiscal Capability

Table 6-5 summarizes financial resources available to Lone Tree.

Table 6-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	Yes, via an agreement with Douglas County

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	Yes, but only with voter approval
User fees for water, sewer, gas, or electric service	No - the City does not have stormwater service fees. Its stormwater system uses operational funding approved in the City budget.
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	No
Incur debt through general obligation bonds	No
Incur debt through special tax bonds	Yes - Sales and Use Tax Revenue Bonds, with voter approval
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	Yes, through Douglas County's Parks, Trails, Historic Resources & Open Space Fund that provides a municipal share-back to the City.
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

6.3.5 Education and Outreach Capability

Table 6-6 summarizes the education and outreach resources available to Lone Tree.

Table 6-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	The City's Director of Communications serves as the City's Public Information Officer and is supported by a Communications Specialist
Personnel skilled or trained in website development	Yes	Several staff members across multiple departments are trained and provide updates to the City's website. The Communications team are the primary responsibilities for the City's website and overall development.
Hazard mitigation information available on your website	Yes	The City hosts Emergency Preparedness pages on its website. These pages provide several resources for hazard mitigation.
Social media for hazard mitigation education and outreach	Yes	The City actively uses Facebook, X/Twitter, and LinkedIn to connect with the Community on various topics to include hazard mitigation.
Citizen boards or commissions that address issues related to hazard mitigation	Yes	The City Council, Planning Commission, and the Recreation Advisory Committee address issues related to hazard mitigation.

Outreach Resources	Available? (Yes/No)	Comment
Warning systems for hazard events	Yes	The City utilizes DougCo Alerts(Reverse 911) and the County's Integrated Public Alert and Warning System, and in-house text system for non-emergency hazard notices to the community.
Natural disaster/safety programs in place for schools	Yes	The Police Department has 3 School Resources Officers, who regularly provide Lone Tree schools with educational outreach for preparedness and safety.
Organizations that conduct outreach to socially vulnerable populations and underserved populations	Yes	The Living and Aging Well Commission is a City commission that offers programs and resources for older adults focusing on social connection, health, wellness, and lifelong learning.
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	The PD's Community Partnership Unit maintains ongoing outreach to populations throughout the city. The Emergency Manager also coordinates with the Communications team throughout the year for various preparedness/awareness campaigns.

6.3.6 Community Classifications

Table 6-7 summarizes classifications for community programs available to Lone Tree.

Table 6-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable

6.4 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 6-1 is responsible for maintaining this information.

6.4.1 NFIP Statistics

Table 6-8 summarizes the NFIP policy and claim statistics for Lone Tree.

Table 6-8. Lone Tree NFIP Summary of Policy and Claim Statistics

Policies in Force	22
Paid Claims	3
# Repetitive Loss Properties (NFIP definition)	0
# Repetitive Loss Properties (FMA definition)	0
# Severe Repetitive Loss Properties	0

NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than \$1,000 were paid by the NFIP within any rolling 10-year period since 1978.

FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.

Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.

Source: FEMA 2025

6.4.2 Flood Vulnerability Summary

Table 6-9 provides a summary of the NFIP program in Lone Tree.

Table 6-9. NFIP Summary

NFIP Topic	Comments
Flood Vulnerability Summary	
Describe areas prone to flooding in your jurisdiction.	Areas along the major drainageways including Willow Creek, Cottonwood Creek, Happy Canyon Creek, and Badger Gulch. While these areas may be more prone to flooding as drainage ways, the Town has not experienced any notable flooding issues.
Do you maintain a list of properties that have been damaged by flooding?	No, not at this time.
Do you maintain a list of property owners interested in flood mitigation?	No, not at this time.
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	Data not available
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	No, not at this time.
How do you make Substantial Damage determinations?	The City does not have a process because no structures are located within a FEMA designated floodplain
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	None, at this time.
How many properties have been mitigated (elevation or acquisition) in your jurisdiction?	None, at this time.

NFIP Topic	Comments
If there are mitigation properties, how were the projects funded?	
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Yes, the flood maps adequately address flood risk within the City.
NFIP Compliance	
What local department is responsible for floodplain management?	Department of Public Works and Mobility
Are any certified floodplain managers on staff in your jurisdiction?	Yes, two are certified floodplain managers on staff.
Do you have access to resources to determine possible future flooding conditions from climate change?	No, not at this time.
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	No, not at this time.
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	Engineering drawing and hydrology and hydraulic report review, permit review and administration, GIS and floodplain mapping library, education and outreach, inspections, master planning for regional drainageways, regional participation with floodplain managers and industry professionals.
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	The City does not have a process for this as no existing structures are located within a mapped floodplain.
What are the barriers to running an effective NFIP program in the community, if any?	None, at this time.
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No, the City does not have any outstanding NFIP compliance violations.
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	The City has not had a CAV, however, is working on scheduling one soon
What is the local law number or municipal code of your flood damage prevention ordinance?	Municipal Code Chapter 15 Article III ARTICLE III - Flood Damage Prevention Municipal Code Lone Tree, CO Municode Library
What is the date that your flood damage prevention ordinance was last amended?	11/27/2021
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	Exceeds: City of Lone Tree Municipal Code Chapter 15, 0 foot floodway and 2 feet of freeboard requirements. The City of Lone Tree does not allow structures in the FEMA Special Flood Hazard Area (SFHA). Therefore, there are not properties in the SFHA that require elevation certificates.
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	Municipal Code Chapter 15 Article IV, Floodplain Overlay District ARTICLE IV - Floodplain Overlay District Municipal Code Lone Tree, CO Municode Library

NFIP Topic	Comments
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	Yes, the City is interesting in joining.

6.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 6-10 through Table 6-12.

Table 6-10. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
2020				
Total Permits	27	1	7	35
Permits within SFHA	0	0	0	0
2021				
Total Permits	19	5	1	25
Permits within SFHA	0	0	0	0
2022				
Total Permits	5	0	1	6
Permits within SFHA	0	0	0	0
2023				
Total Permits	37	1	4	42
Permits within SFHA	0	0	0	0
2024				
Total Permits	198	15	4	217
Permits within SFHA	0	0	0	0

SFHA = Special Flood Hazard Area (1% flood event)

Table 6-11. Recent Major Development and Infrastructure from 2020 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones	Description / Status of Development
Chik-fil-A	Commercial	1	39.55951, -104.881	Hazardous Materials, Wildfire	Completed
Happy Canyon Creek Improvements	Infrastructure	-	39.53563, -104.865	Flood, Hazardous Materials, Geologic Hazards, Wildfire	Construction In Progress

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones	Description / Status of Development
In-n-Out	Commercial	1	39.56479, -104.882	Hazardous Materials	Completed
Larry L. Levin Park	Park Development	-	39.52011, -104.865	Hazardous Materials, Wildfire	Completed
Lincoln Station Apartments	Residential	425	39.54408, -104.87	Hazardous Materials	Completed
Novus/Sky Ridge Apartments	Residential	240	39.53271, -104.872	Hazardous Materials	Completed
RidgeGate Couplet Apartments	Residential	327	39.52075, -104.838	Hazardous Materials, Wildfire	Construction In Progress
RidgeGate Daycare	Commercial	3	39.53358, -104.885	Hazardous Materials	Completed
RidgeGate Station Apartments	Residential	540	39.52112, -104.863	Hazardous Materials, Wildfire	Construction In Progress
RidgeGate Well House	Infrastructure	-	39.52123, -104.846	Hazardous Materials, Wildfire	Completed
RTD Parking Garage (End of Line Station)	Infrastructure	-	39.51946, -104.865	Hazardous Materials, Wildfire	Completed
Tall Tales Ranch	Residential	29	39.51856, -104.864	Hazardous Materials, Wildfire	Approved by Board Committee
Talus Affordable Housing	Residential	67	39.51958, -104.864	Hazardous Materials, Wildfire	Completed
The Reserve at Lone Tree	Residential	209	39.52001, -104.862	Hazardous Materials, Wildfire	Completed
Thrive Townhomes	Residential	54	39.51899, -104.854	Hazardous Materials, Wildfire	Construction In Progress

Table 6-12. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones	Description / Status of Development
Badger Gulch Improvements	Infrastructure	-	39.51927, -104.835	Hazardous Materials, Geologic Hazards, Wildfire	Anticipated - No Approval To Date
Badger Gulch Park	Park Development	-	39.51979, -104.836	Hazardous Materials, Wildfire	Approved by Board Committee
Badger Gulch Well Site	Infrastructure	-	39.52601, -104.834	Hazardous Materials, Wildfire	Anticipated - No Approval To Date
Bebop Park	Park Development	-	39.51573, -104.861	Hazardous Materials, Wildfire	Anticipated - No Approval To Date

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones	Description / Status of Development
Cabela Drive Extension	Infrastructure	-	39.52106, -104.874	Hazardous Materials, Wildfire	Anticipated - No Approval To Date
CDOT Mobility Hub	Infrastructure	-	39.53474, -104.869	Hazardous Materials, Wildfire	Anticipated - No Approval To Date
Chase Bank	Commercial	1	39.53698, -104.879	Hazardous Materials	Construction In Progress
Dutch Bros. Coffee	Commercial	1	39.56031, -104.903	Hazardous Materials	Anticipated - No Approval To Date
Entertainment District Mixed Use Project	Mixed Use	-	39.55548, -104.879	Hazardous Materials	Anticipated - No Approval To Date
Hawkview at Willow Creek	Residential	-	39.56301, -104.891	Hazardous Materials, Wildfire	Anticipated - No Approval To Date
High Note Regional Park	Park Development	-	39.51812, -104.859	Hazardous Materials, Wildfire	Anticipated - No Approval To Date
Hillcamp	Residential	-	39.51227, -104.883	Hazardous Materials, Geologic Hazards, Wildfire	Anticipated - No Approval To Date
Hillcamp Water Booster Pump Station	Infrastructure	-	39.5126, -104.868	Hazardous Materials, Wildfire	Anticipated - No Approval To Date
King Soopers Marketplace	Commercial	8	39.51964, -104.843	Hazardous Materials, Wildfire	Approved by Board Committee
Koelbel Affordable Senior Housing	Residential	165 units, 2 structures	39.52075, -104.839	Hazardous Materials, Wildfire	Approved by Board Committee
Lincoln Avenue and Havana Street Improvements	Infrastructure	-	39.53583, -104.863	Hazardous Materials, Wildfire	Anticipated - No Approval To Date
Lincoln Avenue Multi Modal Improvements	Infrastructure	-	39.536, -104.867	Hazardous Materials, Wildfire	Anticipated - No Approval To Date
Living Spaces	Commercial	1	39.52112, -104.871	Hazardous Materials, Wildfire	Construction In Progress
Lokal Condos	Residential	-	39.51866, -104.851	Hazardous Materials, Wildfire	Anticipated - No Approval To Date
Lokal Townhomes	Residential	-	39.51909, -104.85	Hazardous Materials, Wildfire	Anticipated - No Approval To Date
Lone Tree Justice Center	Commercial	1	39.52068, -104.845	Hazardous Materials, Wildfire	Construction In Progress
Lone Tree Public Works Facility	Commercial	4	39.52074, -104.845	Hazardous Materials, Wildfire	Approved by Board Committee
Lyric Elementary School	Infrastructure	-	39.51527, -104.859	Hazardous Materials, Wildfire	Anticipated - No Approval To Date

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones	Description / Status of Development
Lyric Park	Park Development	-	39.51549, -104.848	Hazardous Materials, Wildfire	Anticipated - No Approval To Date
Lyric Subdivision Amenity Center	Commercial	1	39.51783, -104.855	Hazardous Materials, Wildfire	Approved by Board Committee
Middle Income Housing on Havana St	Residential	-	39.52218, -104.86	Hazardous Materials, Wildfire	Anticipated - No Approval To Date
Park Meadows Mixed-Use	Mixed Use	-	39.56115, -104.874	Hazardous Materials	Anticipated - No Approval To Date
Southwest Village Filings 1-5	Residential	-	39.51503, -104.838	Hazardous Materials, Wildfire	Construction In Progress
Willow Creek Improvements	Infrastructure	-	39.55769, -104.884	Flood, Hazardous Materials, Wildfire	Approved by Board Committee
World Springs Spa and Retail Center	Commercial	-	39.5583, -104.883	Hazardous Materials, Wildfire	Anticipated - No Approval To Date

6.6 JURISDICTIONAL RISK ASSESSMENT

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Lone Tree's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

6.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the City are shown in Figure 6-1 through Figure 6-2. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Lone Tree has significant exposure. The maps show the location of potential new development, where available.

Figure 6-1. Lone Tree Hazard Area Extent and Location Map 1

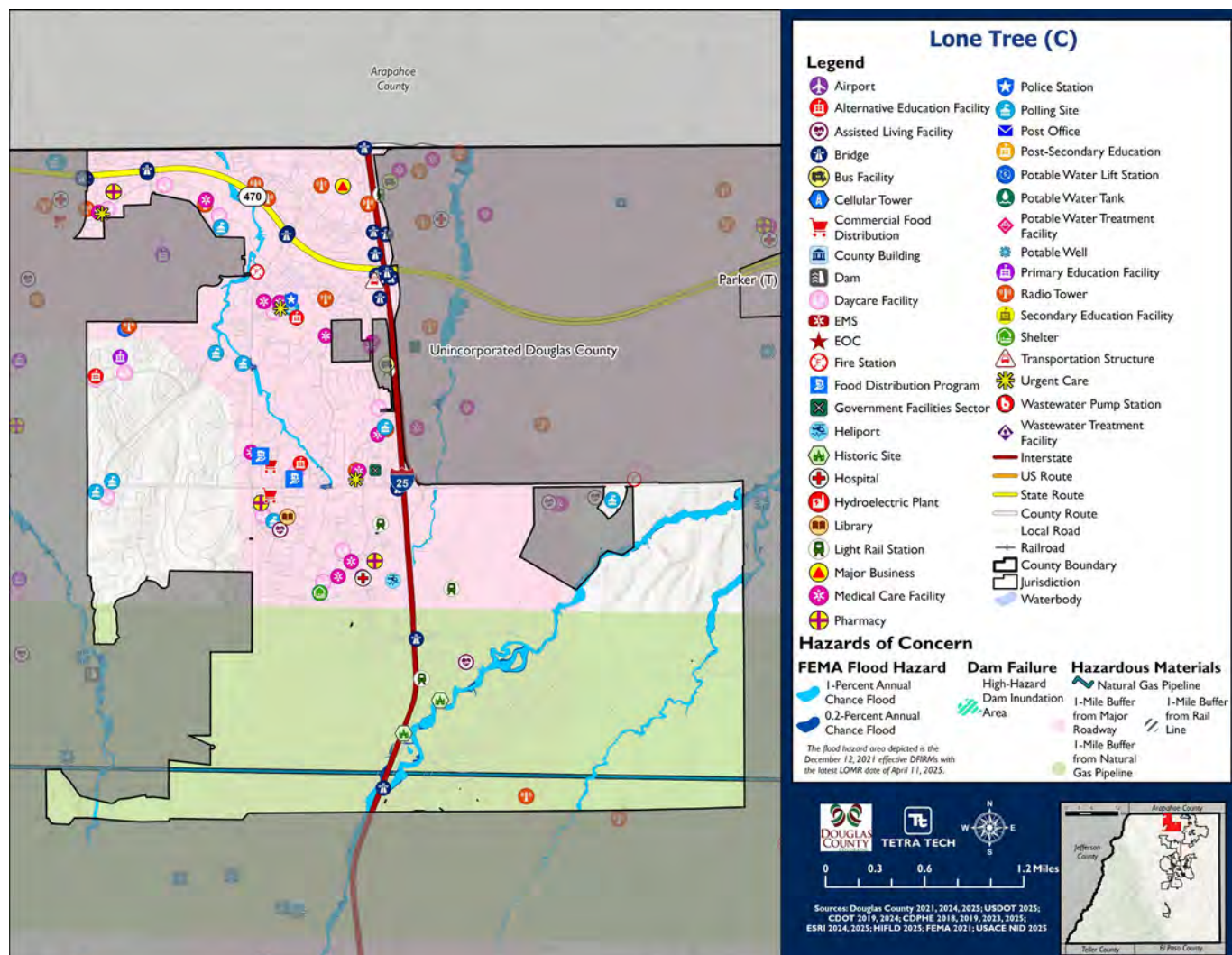
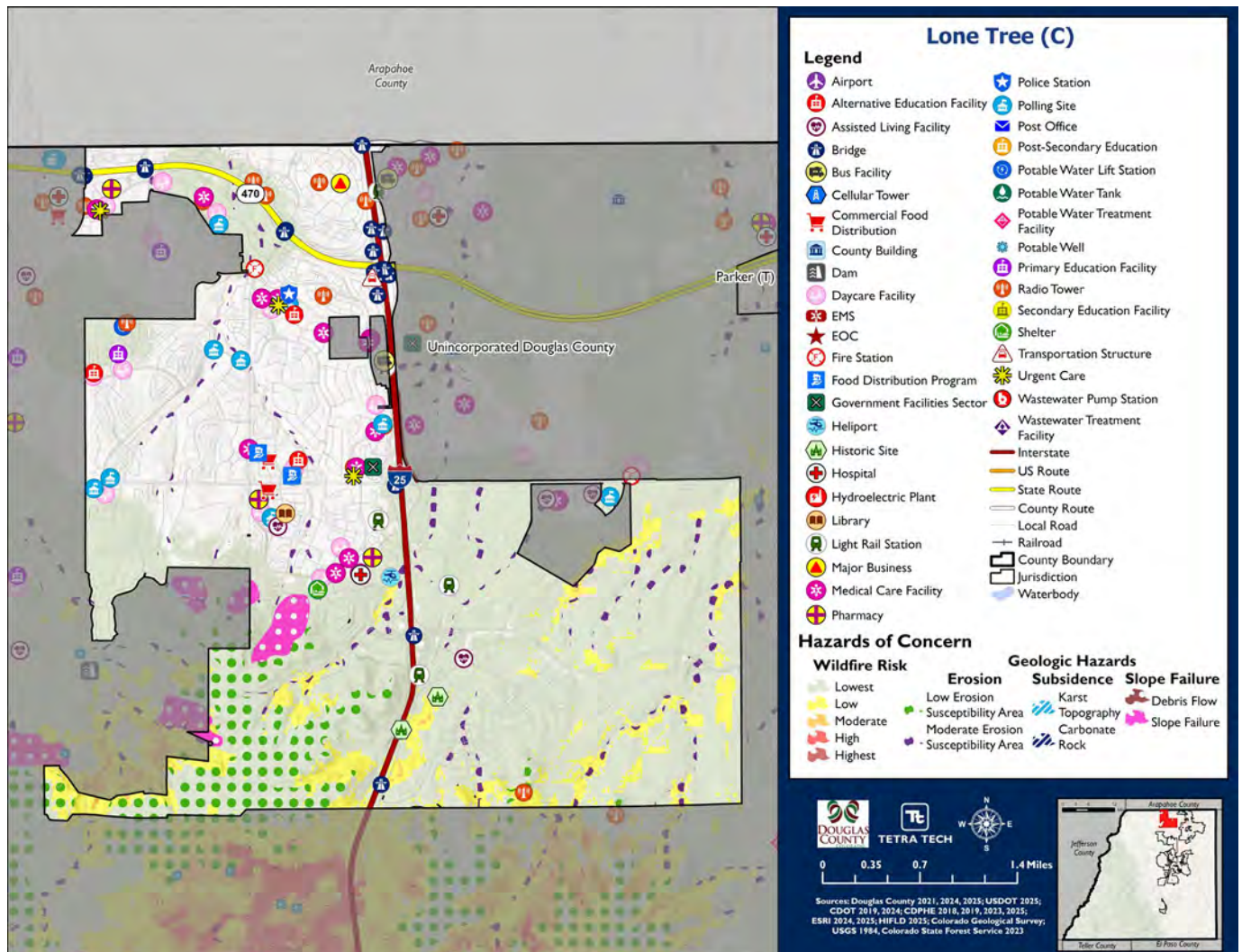


Figure 6-2. Lone Tree Hazard Area Extent and Location Map 2



6.6.2 Hazard Event History

The history of natural and non-natural hazard events in Lone Tree is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its jurisdictions. Table 6-13 provides details on loss and damage in Lone Tree during hazard events since the last hazard mitigation plan update.

Table 6-13. Hazard Event History in Lone Tree

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses
September 6, 2019	Severe Weather	N/A	Severe thunderstorms produced a combination of large hail (1.25 inches) and heavy rain. A brief tornado touched down in an open field near Highlands Ranch. A blast of lightning triggered a house fire in Douglas County, causing extensive damage.	Flooding on Yosemite 7 - Employees 23.50 - Total Hours \$1,260 - Total Amount OT
October 29-30, 2019	Severe Weather	N/A	A winter storm brought record breaking temperatures and up to a foot of snow. Numerous schools were closed due to heavy snow and hazardous road conditions. Storm totals included: 10 inches near Parker; 7.5 inches near Castle Pine.	Damage and loss records are unknown.
January 20, 2020 - May 11, 2023	Pandemic EM-3436-CO, DR-4498-CO	Yes	During the COVID-19 pandemic disaster declaration, there were a reported 102,146 cases of COVID-19 and 527 COVID-19 related deaths in Douglas County.	The City lost a projected \$6 million in revenue, due to business closures during stay-at-home orders in early 2020 and additional restrictions limiting capacity and service options for the following 15+ months. All non-essential large office employers went fully remote for a lengthy period, which dually impacted local sales, as businesses depend on daily visitors as a part of the local economy. Healthcare institutions remained open, and the City worked closely with Sky Ridge to establish a Closed POD Plan and help coordinate community resources. The City established virtual Council meetings and remote work for eligible staff.
March 13-14, 2021	Severe Weather	N/A	Strong winds compounded with heavy snowfall made the roadways impassable in the afternoon and evening. Peak	LTPD arranged for contract hotel room to house officers during the snowstorm. Two individuals were brought to

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses
			wind gusts to 48 mph produced extensive drifting snow. Drifts ranged from 3 to 6 feet deep. The heavy wet snow caused extensive tree damage and produced power outages.	Lone Tree's warming shelter. I-25 in Lone Tree closed. LTPD summary of activity: • 87 Motorist Assist/Traffic Hazards • 4 crashes (nonserious) • 4 rescues getting people to safety (either the shelter or somewhere else) • 2 assists to CSP on I-25 Several cars removed from snowy shoulders of roadways
November - December 2021	Drought	N/A	Portions of the County were in a severe to extreme drought classification (D2/D3) through the months of November and December.	Damage and loss records are unknown.
February 23, 2023	Severe Weather	N/A	Bands of moderate to heavy snow showers coupled with strong winds produced poor visibilities and hazardous driving conditions. During the morning hours on the 23rd, wind chill temperatures ranged from -25°F to -30°F.	Prepared the Warming Shelter for activation. LTPD responded to several accidents and calls for service.
May 10, 2023	Severe Weather	No	Hail event with up to 1-inch sized hail in Lone Tree, and larger in surrounding areas.	While the Lone Tree area did not have significant hail damage reported, the City had two new vehicles awaiting PD outfitting at a site in Centennial - an area that was significantly impacted - which resulted in damage to both City vehicles. The vehicles incurred \$13,700 total in hail damage.
May 12-13, 2023	Flood	N/A	Swollen creeks and streams produced flooding and flash flooding. Numerous hiking trails in Castlewood Canyon State Park were closed as they were underwater and impassable. Three men in the foothills of Douglas County had to be rescued when their vehicle got stuck in snow along Rampart Range Road in Pike National Forest.	Damage and loss records are unknown.
June 22, 2023	Severe Weather DR-4731-CO	Yes	An EF1 tornado touched down just south of CO-470 in the city of Highlands Ranch. Preliminarily the tornado was on the ground	The City's facilities sustained nearly \$160,000 in damages from hail and the severe tornado winds, with reports of

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses
			for 6.3 miles. No injuries were reported but over 100 trees were downed. Some window/shingle damage has been noted to both houses and commercial properties. Up to 2.5 inches hail occurred.	some roof and window damage to a few homes. Lone Tree also experienced heavy rain and flooded roads, which resulted in several accidents and water-related impacts.
January 13-16, 2024	Severe Weather	N/A	A long duration snowfall event occurred resulting in several feet of snow. Total snowfall accumulations across the urban corridor and northeast were light, with storm totals generally less than 6 inches, but the icy conditions did cause some travel impacts. Wind chill temperature dropped to -34°F; the record low of -19°F was tied on the morning of the 16th. Some of the plains locations dropped down to -30°F.	Prepared the EOC and Warming Shelter for activation and coordinated with Douglas County OEM for preparing additional County resources. PD responded to several service calls, and City facilities delayed opening for 2 hours on Jan. 16, 2024.
June 9, 2024	Severe Weather	N/A	Slow moving thunderstorms produced hail (1.25 inches) and heavy rainfall. There were reports of cars being swamped due to rising waters. The steep area along the south side of The Retreat neighborhood was severely eroding, causing a landslide situation - about 6" to 1 foot a day. It's suspected it was caused by a leaking waterline at the base of the hillside, but the cause is still under investigation.	An emergency access road, located at the base of the landslide, was inaccessible and closed for a few hours during emergency remediation. The City committed \$200,000 for the emergency repairs; we estimate the total cost of repairs is \$600,000 (the difference to be paid by the other entities involved).
July 30 - August 7, 2024	Wildfire	N/A	A fire was contained August 7th after reaching about 579 acres. No structures were lost in the fire. Several firefighters were treated for heat exhaustion. Mandatory evacuations were ordered for the Deer Creek Mesa area and several subdivisions in the area of Ken Caryl.	No direct impacts were recorded for the City.

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

6.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Lone Tree .

Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions. Lone Tree reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the City agreed with the following preliminary hazard rankings as identified in Table 6-14.

Table 6-14 shows Lone Tree's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 6-14. Hazard Ranking

Hazard	Rank
Dam Failure	Low
Drought	High
Earthquake	Low
Flood	Medium
Geologic Hazards	Medium
Hazardous Materials	Medium
Pandemic	Medium
Severe Weather	High
Wildfire	High

Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction

Critical Facilities

Table 6-15 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 6-15. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Event	0.2% Event		
According to the critical facilities list for this HMP update, there are no critical facilities located in the flood hazard area in the City of Lone Tree.					

Source: Douglas County; CDOT; CDPHE; ESRI; HIFLD; US Energy Information Administration; FEMA

6.6.4 Identified Issues

After a review of Lone Tree's hazard event history, hazard rankings, hazard location, and current capabilities, Lone Tree identified the following vulnerabilities within the community:

- The City would like to better understand the impacts of drought on the community and infrastructure to better understand what actions can help to reduce drought impacts.
- Although the City has flood exposure, the City does not participate in the Community Rating System (CRS) program. Flood insurance premiums continue to rise.
- All development within the City of Lone Tree is serviced by public water systems, with water provided either through Southgate Water District/Denver Water or by Parker Water & Sanitation District. The City cooperates with these water suppliers in terms of water use restrictions if/when such restrictions are implemented. Additionally, City Planning recommends/requires low water use landscaping and water monitoring/conserving irrigation systems for new development. Waterwise principles are applied in the City's Landscape Design Guidelines and Standards for Areas in and Along Public Rights-of-Way; Zoning Code Chapter 16, Landscaping Requirements; Design Guidelines, Landscaping. Additionally, the City's Zoning Enforcement Officer assesses and cites development for code violations.
- Lack of agency alignment among master planning processes impacts the accuracy of growth projections and service modeling for new development in the City of Lone Tree.
- The City of Lone Tree would like to increase protection against wildfire for properties within the Wildland-Urban Interface.
- The City lacks a 'Parks, Open Space, and Trails Master Plan,' to identify maintenance hazard mitigation standards for publicly owned and maintained recreation and natural spaces.
- The City of Lone Tree needs enhanced communication and community preparedness for severe weather events.
- The City of Lone Tree needs to assess the stream corridors within the city to enhance slope protection and mitigate surface flooding.
- The City currently does not have a comprehensive education and outreach program which addresses all identified hazards of concern. There is a need to educate residents, businesses, special districts, and HOAs about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods.

6.7 MITIGATION STRATEGY AND PRIORITIZATION

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

6.7.1 Past Mitigation Action Status

Table 6-16 indicates progress on the City's mitigation strategy identified in the 2021 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

6.7.2 Additional Mitigation Efforts

In addition to the mitigation actions completed in Table 6-16, Lone Tree identified the following mitigation efforts completed since the last HMP:

- In May 2025, all in-service Lone Tree police officers partnered with South Metro Fire Rescue for a hazmat training, which covered several topics surrounding a multitude of hazardous materials and addressed the innerworkings and coordination between LTPD and SMFR.
- The Public Works department maintains a robust snow-removal program for all City streets and rights-of-way and stays in close coordination with CDOT for addressing impacts to I-25 in Lone Tree. In addition, the Lone Tree Police Department completed Traffic Incident Management (TIMS) training in 2025, as part of LTPD's Emergency Vehicle Operations Course (EVOC) training.
- In 2025, the City completed the Community Wildfire Protection Plan (CWPP), with formal approval by the State of Colorado.
- New flood-mitigation standards were developed and codified in the 2021 Flood Damage Prevention ordinance. The City will continue code updates in accordance with state legislation.
- City staff joined the Douglas County Wildfire Partnership, though it is no longer active. The City's Emergency & Risk Manager is a member of the Douglas County Wildfire Action Collaborative.
- The City created a 'Health and Medical' annex in the EOP, maintains an updated COVID-19 Policy, with several measures in place in preparation for a possible outbreak - including all staff equipment to work remotely - and remains connected with local health officials and related partners to stay informed and respond effectively.

Since the adoption of the County's first HMP, Lone Tree has made significant mitigation progress in the following areas:

- Wildfire management
- Plan development and implementation
- Personnel training

Table 6-16. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
Action LT1	Hazardous materials mitigation	Hazardous Materials	LTPD, SMFR	The City of Lone Tree has identified the potential for hazardous materials – transportation incidents medium risk. The City of Lone Tree has two major highways that travel through the community. There are no railroads within the jurisdiction. Hazardous materials are transported on a daily basis along I-25 and C-470, normally in quantities that do not pose a substantial threat to the community. However; there are opportunities that a major incident could occur on a daily basis. Past history indicates the majority of hazardous materials incidents are associated with the fuel spills from accidents and not the actual cargo carried. The City recognizes the need to work in conjunction with the teams designed and trained to address hazardous material should there be an actual or potential incident. Identification of the incident at the onset will be a major priority to ensure safety for the community. The first responders need to be properly trained in recognition of	1. Complete/Ongoing Capability 2. In May 2025, all in-service Lone Tree police officers partnered with South Metro Fire Rescue for a hazmat training, which covered several topics surrounding a multitude of hazardous materials and addressed the innerworkings and coordination between LTPD and SMFR.	1. Discontinue 2. N/A 3. Ongoing capability

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				potential events and the proper safety precautions to take. A portion of this training is already conducted within individual department yearly training (fire and police). However, there is little cross training that has occurred within this realm to ensure both sides are performing their duties as expected. Therefore, it is recommended that cross training between both groups of first responders be implemented. There is additional need to exercise multijurisdictional command and control for a complex HAZMAT incident response.		
Action LT2	Severe Winter Weather traffic impact mitigation to include protection of people and property	Severe Weather	PW, LTPD	The City of Lone Tree has snow plowing and de-icing procedures in place to address winter storm related events within the City (see City Website). Additionally, the City of Lone Tree Emergency Operations Plan addresses the City's plan for dealing with Winter Storm related events. Winter Storm impacts on C-470 and/or I-25 are addressed by CDOT. There is a CDOT Region 1 generated Douglas County I-25 South Traffic Incident Management Plan established which includes addressing winter storm events impacts on I-25.	1. Ongoing Capability 2. The Public Works department maintains a robust snow-removal program for all City streets and rights-of-way and stays in close coordination with CDOT for addressing impacts to I-25 in Lone Tree. In addition, the Lone Tree Police Department completed Traffic Incident Management (TIMS) training in 2025, as part of LTPD's Emergency Vehicle Operations Course (EVOC) training.	1. Discontinue 2. N/A 3. Ongoing Capability

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				The City of Lone Tree was a participant in development of this Plan, and will cooperate as required in the Plan implementation		
Action LT3	Wildfire prevention and protection plan review and implementation	Wildfire	CMO, LTPD	The City of Lone Tree has identified the potential for wildfire impacts within portions of the City as having a medium significance. The City of Lone Tree will continue to work with South Metro Fire/Rescue Authority to develop plans to mitigate the impact of future wildfires within our community. In addition, Lone Tree has put into place means of communicating with the community during the time of an actual emergency as well as providing ongoing communication on fire prevention and mitigation strategies for the citizens. The city also works in conjunction with Douglas County to identify situations when the fire danger is higher and incorporate additional restrictions associated with open fires. The City also coordinates development referrals with the Douglas County Wildfire Mitigation Specialist in areas of medium to high wildfire risk and requires	1. Complete 2. In 2025, the City completed the Community Wildfire Protection Plan (CWPP), with formal approval by the State of CO. We'd like to mark this as complete, and create a new goal/action item in the 2026 HMP that outlines specific implementation goals/actions that further align with the CWPP.	1. Discontinue 2. N/A 3. The primary goal of creating a Community Wildfire Protection Plan is complete. In the 2026 HMP, we will create a new goal specific to implementation of wildfire risk reduction.

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				developers to prepare wildfire mitigation plans when necessary. Additionally, South Suburban Parks and Recreation District manages Lone Tree Open Space areas and the District's Open Space Maintenance Standards include mowing standards for active open space areas that comply with Douglas County's recommended mowing standards.		
Action LT4	Drought Mitigation	Drought	CDD, PW	All development within the City of Lone Tree is serviced by public water systems, with water provided either through Southgate Water District/Denver Water or by Parker Water & Sanitation District. The City cooperates with these water suppliers in terms of water use restrictions if/when such restrictions are implemented. Additionally, City Planning recommends/requires low water use landscaping and water monitoring/conserving irrigation systems for new development. Waterwise principles are applied in the City's Landscape Design Guidelines and Standards for Areas in and Along Public Rights-of-Way; Zoning Code Chapter 16, Landscaping Requirements; Design Guidelines, Landscaping.	1. In progress 2. Water conservation was identified as a strategic action in the 2025 Comprehensive Plan, though further planning, development, and implementation are still underway.	1. Include in the 2026 HMP 2. The City intends to develop further HMP action item(s) associated with development impact assessments and design (i.e. low-impact development and green infrastructure, slope protection, erosion prevention and vegetation protection). Additionally, the city will include a new action item in the 2026 HMP that will revisit drought mitigation measures to ensure effective collaboration with our water providers to achieve regional goals for water conservation. 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				Additionally, the City's Zoning Enforcement Officer assesses and cites development for code violations.		
Action LT5	Mitigate flooding by developing and implementing zoning and development regulations	Flood, Severe Weather	CDD, PW	High intensity, relatively short duration, rain events are not uncommon during the rainy seasons. Localized surface flooding potential exists from these cloud-burst type events. However, incidents of significant flooding are not frequent (no specific records on file). The City of Lone Tree reviews proposed grading and drainage plans for development within the City through zoning codes, development standards, and engineering plans reviews - with consideration for appropriate drainage management to minimize such drainage hazards.	1. Ongoing Capability 2. New flood-mitigation standards were developed and codified in the 2021 Flood Damage Prevention ordinance. The City will continue code updates in accordance with state legislation.	1. Discontinue 2. N/A 3. Complete/Ongoing Capability. The city will include an action item in the 2026 HMP that will address additional review and assessment criteria for development to ensure the protection of stream corridors, sensitive slopes and to focus on low-impact development regulations that focus on utilizing pervious surfaces and facilitate groundwater recharge and limit surface flooding.
Action LT6	Lone Tree intends to join the Douglas County Wildfire Partnership (DCWP)	Wildfire	CMO, LTPD	Lone Tree Emergency Management and Public Works along with various state, federal, NGO, and private stakeholders, will work with the Partnership to assess impact from wildfire; identify opportunities to maintain continuity of operations; and develop a comprehensive mitigation strategy to identify projects that will reduce wildfire	1. Complete/Ongoing Capability 2. City staff joined the Douglas County Wildfire Partnership, though it is no longer active. The City's Emergency & Risk Manager is a member of the Douglas County Wildfire Action Collaborative.	1. Discontinue 2. N/A 3. Completed and actively involved

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				risk, increase natural resource protection, encourage the incorporation of wildfire management principles into local planning, land use and building codes, and promote public awareness of wildfire risk. review and implementation.		
Action LT7	Pandemic preparation, mitigation, and response	Pandemic	Emergency Management, PW, City Clerk, CMO	The City of Lone Tree was very successful in responding to the 2020 COVID-19 Pandemic. However, we learned many lessons that can improve our response and lessen the effects of future pandemics. We intend to take these lessons learned and document them in the Pandemic Annex of the Emergency Operations Plan. We will archive our Pandemic Specific City Policies that provided for the health and safety of the staff and public by governing the operations of City Facilities. We have several facility upgrades dealing with symptom monitoring, creating natural ventilation, HAVC upgrades, touchless operations, social distancing barriers, and advanced oxidation cell purifications units. We will seek to improve our staff's remote work capabilities and the capability of the city to continue	1. Complete 2. The City created a 'Health and Medical' annex in the EOP, maintains an updated COVID-19 Policy, with several measures in place in preparation for a possible outbreak - including all staff equipment to work remotely - and remains connected with local health officials and related partners to stay informed and respond effectively.	1. Discontinue 2. N/A 3. Completed

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				the delivery of critical services when faced with extreme social distancing requirements. This may include equipping our City Council Chambers for hybrid public meetings and researching how to move some activities into outdoor spaces at City Facilities.		

6.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Lone Tree participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 “Selecting Appropriate Mitigation Measures for Floodprone Structures” (March 2007)
- FEMA “Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards” (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Lone Tree would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in City priorities.

Table 6-17 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 12 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 6-18 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.

Table 6-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure				X			X			
Drought	X			X	X		X			
Earthquake				X			X			
Flood	X			X	X		X			
Geologic Hazards	X			X	X		X			
Hazardous Materials				X			X			
Pandemic				X			X			
Severe Weather	X			X	X		X			
Wildfire	X			X	X		X			

Local Plans and Regulations (LPR)—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

Structure and Infrastructure Project (SIP)—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

Natural Systems Protection (NSP)—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

Education and Awareness Programs (EAP)—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

Preventative Measures (PR)—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

Property Protection (PP)—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

Public Information (PI)—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

Natural Resource Protection (NR)—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

Structural Flood Control Projects (SP)—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

Emergency Services (ES)—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities

Table 6-18. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria													High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Administrative	Hazards of Concern	Timeline	Community Lifelines	Other Local Objectives	Total	
2026-Lone Tree-01	Drought Mitigation	1	1	1	1	1	1	0	1	1	1	1	0	10	High
2026-Lone Tree-02	Join the CRS Program	1	1	1	1	1	1	0	1	1	1	1	1	11	High
2026-Lone Tree-03	Collaboration with Water Districts	1	1	1	1	1	1	0	1	1	1	1	1	11	High
2026-Lone Tree-04	Data Information Sharing	1	1	1	1	1	1	0	1	1	1	1	1	11	High
2026-Lone Tree-05	Colorado Wildfire Resiliency Code	1	1	1	1	1	1	1	1	1	1	1	1	12	High
2026-Lone Tree-06	Parks, Open Space, and Trails Master Plan	1	1	1	1	1	1	0	1	1	1	1	1	11	High
2026-Lone Tree-07	NWS StormReady	1	1	1	1	1	1	0	1	1	1	1	1	11	High
2026-Lone Tree-08	Stream Corridor and Slope Protection	1	1	1	1	1	1	1	1	1	1	1	0	11	High
2026-Lone Tree-09	Comprehensive Outreach Program	1	1	1	1	1	1	0	1	1	1	0	0	9	High

Note: Volume I, Section 19 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-12).

Action 2026-Lone Tree-01. Drought Mitigation

Lead Agency:	Community Development								
Supporting Agencies:	Public Works								
Hazard(s) of Concern:	☐ Dam Failure ☒ Drought ☐ Earthquake ☐ Flood ☐ Geologic Hazards	☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☐ Wildfire							
Description of the Problem:	The City would like to better understand the impacts of drought on the community and infrastructure to better understand what actions can help to reduce drought impacts.								
Description of the Solution:	The City intends to strengthen drought mitigation efforts by establishing water conservation standards for new development. Establish impact assessments and design standards for new development to facilitate implementation of water conservation goals (i.e. low-impact development and green infrastructure, slope protection, erosion prevention and vegetation protection).								
Estimated Cost:	TBD								
Potential Funding Sources:	General funding, Staff time								
Implementation Timeline:	Short (1-2 years). Ongoing action.								
Goals Met:	4, 5, 7								
Benefits:	This action will result in more water supply during drier, drought seasons and will include more sustainable water supply management for the City.								
Impact on Future Development:	Future development will be better protected against drought impacts through the assessment of how to mitigate them.								
Impact on Critical Facilities/Lifelines:	Critical facilities are also at risk to drought, and this assessment will include ways to better protect these facilities to continue to operate.								
Impact on Capabilities:	This assessment will increase the drought response capabilities for the City and emergency responders.								
Mitigation Category:	☒ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)							
CRS Category:	☒ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)							
Priority:	☒ High	☐ Medium	☐ Low						
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Rely on state assessments</td><td>Not locally pertinent and not always publicly accessible. Does not provide a local action plan for implementation.</td></tr> <tr> <td>Rely on federal assessments</td><td>Not locally pertinent and not always publicly accessible. Does not provide a local action plan for implementation.</td></tr> </tbody> </table>	No Action	Current problem exists	Rely on state assessments	Not locally pertinent and not always publicly accessible. Does not provide a local action plan for implementation.	Rely on federal assessments	Not locally pertinent and not always publicly accessible. Does not provide a local action plan for implementation.		
No Action	Current problem exists								
Rely on state assessments	Not locally pertinent and not always publicly accessible. Does not provide a local action plan for implementation.								
Rely on federal assessments	Not locally pertinent and not always publicly accessible. Does not provide a local action plan for implementation.								

Action 2026-Lone Tree-02. Join the CRS Program

Lead Agency:	Public Works, Community Development		
Supporting Agencies:	City Manager's Office, City Council		
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☒ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☐ Wildfire		
Description of the Problem:	Although the City has flood exposure, the City does not participate in the Community Rating System (CRS) program. Flood insurance premiums continue to rise.		
Description of the Solution:	The City will evaluate the benefits and costs of participating in CRS program. If feasible, the City will join the program and begin implementing standards that exceed NFIP requirements.		
Estimated Cost:	Low (staff time)		
Potential Funding Sources:	City budget, staff time		
Implementation Timeline:	Short-term (1-2 years). Ongoing annually.		
Goals Met:	3, 4, 6		
Benefits:	Participation in the CRS benefits communities by offering discounted rates for flood insurance premiums, which addresses the three goals of the program: reduce and avoid flood damage to insurable property, strengthen and support the insurance aspects of the National Flood Insurance Program, and foster comprehensive floodplain management.		
Impact on Future Development:	Future development would need to adhere to any increased standards established as part of joining the CRS program such as increased freeboard and elevation certificate requirements.		
Impact on Critical Facilities/Lifelines:	N/A		
Impact on Capabilities:	This action would enhance the City's floodplain management capabilities.		
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☒ Education and Awareness Programs (EAP)		
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☒ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)		
Priority:	☒ High ☐ Medium ☐ Low		
Alternatives:	No Action		Current problem exists
	Adopt aspects of the CRS program into the floodplain management program		Increased floodplain management capabilities but no reduction in flood insurance premiums
	Abandon any floodplain management practices not required by NFIP		Reduction in floodplain management capabilities and increase in risk.

Action 2026-Lone Tree-03. Collaboration with Water Districts

Lead Agency:	Community Development, Public Works								
Supporting Agencies:	Planning Commission, City Council, Southgate Water & Sanitation District, Parker Water & Sanitation District, Northern Douglas County Water & Sanitation District								
Hazard(s) of Concern:	☐ Dam Failure ☒ Drought ☐ Earthquake ☐ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☐ Wildfire								
Description of the Problem:	All development within the City of Lone Tree is serviced by public water systems, with water provided either through Southgate Water District/Denver Water or by Parker Water & Sanitation District. The City cooperates with these water suppliers in terms of water use restrictions if/when such restrictions are implemented. Additionally, City Planning recommends/requires low water use landscaping and water monitoring/conserving irrigation systems for new development. Waterwise principles are applied in the City's Landscape Design Guidelines and Standards for Areas in and Along Public Rights-of-Way; Zoning Code Chapter 16, Landscaping Requirements; Design Guidelines, Landscaping. Additionally, the City's Zoning Enforcement Officer assesses and cites development for code violations.								
Description of the Solution:	The city will continue to explore drought mitigation measures to ensure effective collaboration with water providers to achieve regional goals for water conservation.								
Estimated Cost:	Low (staff time)								
Potential Funding Sources:	General funding								
Implementation Timeline:	Ongoing (annual)								
Goals Met:	5, 6, 7								
Benefits:	This action will support the safe, continued use of potable water to ensure there is adequate drinking water available to support residents.								
Impact on Future Development:	Future development will be better protected from drought and the continuity of operations for water services will be strengthened.								
Impact on Critical Facilities/Lifelines:	Water Districts are critical facilities which supply water resources to the community. This coordination between the City and Water Districts will strengthen their services to residents.								
Impact on Capabilities:	This action will strengthen the capabilities of the City to coordinate with the Water Districts to provide more reliable water resources to residents during drought.								
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☒ Education and Awareness Programs (EAP)								
CRS Category:	☒ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)								
Priority:	☒ High ☐ Medium ☐ Low								
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>City to rely on state coordination with Water Districts</td><td>Not reliable, and coordination may take more time.</td></tr> <tr> <td>City to rely on federal coordination with Water Districts</td><td>Not reliable or existing, and coordination may take more time.</td></tr> </tbody> </table>			No Action	Current problem exists	City to rely on state coordination with Water Districts	Not reliable, and coordination may take more time.	City to rely on federal coordination with Water Districts	Not reliable or existing, and coordination may take more time.
No Action	Current problem exists								
City to rely on state coordination with Water Districts	Not reliable, and coordination may take more time.								
City to rely on federal coordination with Water Districts	Not reliable or existing, and coordination may take more time.								

Action 2026-Lone Tree-04. Data Information Sharing

Lead Agency:	Community Development								
Supporting Agencies:	Southgate Water & Sanitation District, Parker Water & Sanitation District, Northern Douglas County Water & Sanitation District								
Hazard(s) of Concern:	☐ Dam Failure ☒ Drought ☐ Earthquake ☐ Flood ☐ Geologic Hazards	☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☐ Wildfire							
Description of the Problem:	Lack of agency alignment among master planning processes impacts the accuracy of growth projections and service modeling for new development in the City of Lone Tree.								
Description of the Solution:	Consistent with state statute and Lone Tree's Comprehensive Plan (Lone Tree Elevated), develop an information and data-sharing process to inform area water providers of Lone Tree's projected growth and master plans for development. Additionally, coordinate drought mitigation measures with area water providers to achieve regional goals for water conservation.								
Estimated Cost:	Low								
Potential Funding Sources:	General funds; staff time								
Implementation Timeline:	Short-term (1-2 years); ongoing								
Goals Met:	2, 5								
Benefits:	Communicating population and development growth with water providers can assist in ensuring there is adequate water supply for any anticipated increase in demand. By planning ahead, water providers may be able to institute mitigation measures.								
Impact on Future Development:	Integrating growth projections and master plans into water resource planning supports sustainable development, ensuring that future housing and commercial projects have adequate water supply without compromising conservation goals.								
Impact on Critical Facilities/Lifelines:	Coordinating drought mitigation measures with regional water providers enhances resilience for critical facilities such as hospitals, schools, and emergency services by safeguarding their water availability during shortages.								
Impact on Capabilities:	Establishing a data-sharing process strengthens interagency collaboration and technical capacity, enabling proactive water management and more effective regional drought response strategies.								
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☒ Education and Awareness Programs (EAP)							
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☒ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)							
Priority:	☒ High	☐ Medium	☐ Low						
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Rely on state coordination with water providers</td><td>Not always in coordination with local water providers, and not always reliable.</td></tr> <tr> <td>Rely on federal coordination with water providers</td><td>Not always in coordination with local water providers, and not always reliable.</td></tr> </tbody> </table>	No Action	Current problem exists	Rely on state coordination with water providers	Not always in coordination with local water providers, and not always reliable.	Rely on federal coordination with water providers	Not always in coordination with local water providers, and not always reliable.		
No Action	Current problem exists								
Rely on state coordination with water providers	Not always in coordination with local water providers, and not always reliable.								
Rely on federal coordination with water providers	Not always in coordination with local water providers, and not always reliable.								

Action 2026-Lone Tree-05. Colorado Wildfire Resiliency Code

Lead Agency:	Community Development, City Manager's Office								
Supporting Agencies:	City Council, South Metro Fire Rescue								
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☐ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☒ Wildfire								
Description of the Problem:	The City of Lone Tree would like to increase protection against wildfire for properties within the Wildland-Urban Interface.								
Description of the Solution:	The City of Lone Tree will seek City Council's adoption and subsequent implementation of the Colorado Wildfire Resiliency Code. Integrate the implementation of the Lone Tree CWPP into annual budget and capital improvement planning.								
Estimated Cost:	Low (staff time)								
Potential Funding Sources:	General funds								
Implementation Timeline:	Short (1-2 years); ongoing updates								
Goals Met:	4, 5								
Benefits:	Adopting the Colorado Wildfire Resiliency Code (CWRC) will enhance life safety and property protection in the WUI areas. The CWRC establishes construction and landscaping requirements to reduce fire risk to structures and prevent the spread of wildfires into surrounding vegetation. This initiative will create uniform standards for construction and land use in wildfire-prone areas.								
Impact on Future Development:	Implementing wildfire resiliency standards in planning and budgeting promotes safer, sustainable growth by reducing future wildfire hazards for new developments.								
Impact on Critical Facilities/Lifelines:	Integrating CWPP priorities into capital improvement planning enhances the protection of critical facilities such as emergency services, schools, and healthcare centers against wildfire threats.								
Impact on Capabilities:	Formal adoption of the resiliency code strengthens local capabilities by embedding wildfire mitigation into annual budgets and planning processes, ensuring consistent and proactive risk management.								
Mitigation Category:	☒ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)								
CRS Category:	☒ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)								
Priority:	☒ High ☐ Medium ☐ Low								
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Pass local resiliency code</td><td>May not be consistent with state standards. The Colorado Wildfire Resiliency Code is recognized by other communities. May take longer time period to implement local code.</td></tr> <tr> <td>Seek grant funding for Lone Tree CWPP</td><td>May take longer to fund then utilizing annual budget that is already available.</td></tr> </tbody> </table>			No Action	Current problem exists	Pass local resiliency code	May not be consistent with state standards. The Colorado Wildfire Resiliency Code is recognized by other communities. May take longer time period to implement local code.	Seek grant funding for Lone Tree CWPP	May take longer to fund then utilizing annual budget that is already available.
No Action	Current problem exists								
Pass local resiliency code	May not be consistent with state standards. The Colorado Wildfire Resiliency Code is recognized by other communities. May take longer time period to implement local code.								
Seek grant funding for Lone Tree CWPP	May take longer to fund then utilizing annual budget that is already available.								

Action 2026-Lone Tree-06. Parks, Open Space, and Trails Master Plan

Lead Agency:	Community Development								
Supporting Agencies:	City Manager's Office, South Suburban Parks & Rec District, Rampart Range Metro District								
Hazard(s) of Concern:	☐ Dam Failure ☒ Drought ☐ Earthquake ☒ Flood ☒ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☒ Severe Weather ☒ Wildfire								
Description of the Problem:	The City lacks a 'Parks, Open Space, and Trails Master Plan,' to identify maintenance hazard mitigation standards for publicly owned and maintained recreation and natural spaces.								
Description of the Solution:	Consistent with the City's Comprehensive Plan (Lone Tree Elevated), develop a Parks, Open Space and Trails Master Plan that identifies land use management goals and establishes design and maintenance standards for parks, open spaces and trails within the city. Standards will address wildfire mitigation, weed and invasive species management, water conservation, slope stability and erosion control, and habitat preservation. Implementation of the plan will occur via intergovernmental agreements with maintenance and public lands management partners.								
Estimated Cost:	Low (staff time)								
Potential Funding Sources:	General funds								
Implementation Timeline:	Short (1-2 years); ongoing updates								
Goals Met:	4, 5								
Benefits:	The Parks, Open Space, and Trails Master Plan will provide a long-range plan that identifies key initiatives, policies, and implementation strategies to guide the development and improvement of parks, trails, recreation programs, facilities, and events for all residents. The plan is essential for ensuring that parks and recreation services meet the evolving demands of the community.								
Impact on Future Development:	By establishing clear design and maintenance standards for parks and open spaces, the plan supports sustainable future development that integrates wildfire mitigation, water conservation, and habitat preservation into community growth.								
Impact on Critical Facilities/Lifelines:	Implementing land management standards enhances protection for critical facilities located near parks and open spaces by reducing wildfire hazards, stabilizing slopes, and controlling invasive species.								
Impact on Capabilities:	Coordinating implementation through intergovernmental agreements strengthens regional capabilities for land management, fostering collaboration and resource-sharing among public agencies and partners.								
Mitigation Category:	☒ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)								
CRS Category:	☒ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)								
Priority:	☒ High ☐ Medium ☐ Low								
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Utilize state plans for parks and open space</td><td>Not always locally pertinent information.</td></tr> <tr> <td>Utilize federal plans for parks and open space</td><td>Not always locally pertinent information.</td></tr> </tbody> </table>			No Action	Current problem exists	Utilize state plans for parks and open space	Not always locally pertinent information.	Utilize federal plans for parks and open space	Not always locally pertinent information.
No Action	Current problem exists								
Utilize state plans for parks and open space	Not always locally pertinent information.								
Utilize federal plans for parks and open space	Not always locally pertinent information.								

Action 2026-Lone Tree-07. NWS StormReady

Lead Agency:	City Manager's Office		
Supporting Agencies:	Douglas County, NWS		
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☐ Flood ☐ Geologic Hazards	☐ Hazardous Materials ☐ Pandemic ☒ Severe Weather ☐ Wildfire	
Description of the Problem:	The City of Lone Tree needs enhanced communication and community preparedness for severe weather events. The National Weather Service (NWS) provides a certification called Storm Ready to locales that adopt certain weather preparedness principles and planning. The City does not participate in NOAA's Storm Ready program.		
Description of the Solution:	The City of Lone Tree will coordinate with the local NWS office to complete all necessary requirements to become a Storm Ready community.		
Estimated Cost:	Low		
Potential Funding Sources:	City Budget		
Implementation Timeline:	Short (1-2 years); ongoing updates		
Goals Met:	1, 3, 6		
Benefits:	Storm Ready is a nationwide program that helps communities better protect their citizens during severe weather. The program encourages communities to take a proactive approach to improving hazardous local weather operations. Storm Ready provides emergency managers with clear-cut guidelines on how to improve their hazardous weather operations. Community Rating System (CRS) points will become available that can reduce flood insurance premiums for home and business owners.		
Impact on Future Development:	The StormReady designation promotes resilient development by integrating severe weather preparedness into planning processes, reducing risks for future housing and infrastructure projects.		
Impact on Critical Facilities/Lifelines:	Enhanced communication and emergency protocols protect critical facilities such as hospitals, schools, and emergency services by ensuring they are prepared for severe storms and can maintain operations during emergencies.		
Impact on Capabilities:	Becoming StormReady strengthens local capabilities by improving coordination between emergency management, public safety, and the National Weather Service, enabling faster and more effective storm response.		
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☒ Education and Awareness Programs (EAP)	
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☒ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)	
Priority:	☒ High	☐ Medium	☐ Low
Alternatives:	No Action Increase warning system capabilities without Storm Ready guidance Participate in the program, but do not utilize resources	Current problem exists No CRS points would be available. Less public awareness and support from NWS. The City would miss opportunities to strengthen communication and safety skills	

Action 2026-Lone Tree-08. Stream Corridor and Slope Protection

Lead Agency:	Community Development, Public Works		
Supporting Agencies:	Planning Commission		
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☒ Flood ☒ Geologic Hazards	☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☐ Wildfire	
Description of the Problem:	The City of Lone Tree needs to assess the stream corridors within the city to enhance slope protection and mitigate surface flooding.		
Description of the Solution:	Establish additional review and assessment criteria for new development to ensure the protection of stream corridors, sensitive slopes and to focus on low-impact development regulations that focus on utilizing pervious surfaces, facilitating groundwater recharge, and limiting surface flooding.		
Estimated Cost:	Low		
Potential Funding Sources:	General funds		
Implementation Timeline:	Short (1-2 years); ongoing updates		
Goals Met:	5		
Benefits:	Overall flooding will be reduced, which will result in less frequency of road closures and reduced damage to properties.		
Impact on Future Development:	Integrating low-impact development standards such as pervious surfaces and groundwater recharge into new projects promotes sustainable growth while minimizing surface flooding and long-term infrastructure costs.		
Impact on Critical Facilities/Lifelines:	Enhanced development criteria safeguard critical facilities by reducing flood exposure and improving site stability, ensuring continuity of essential services during extreme weather events.		
Impact on Capabilities:	Implementing these standards strengthens local planning capabilities by embedding resilience and water management practices into development review processes, fostering proactive hazard mitigation.		
Mitigation Category:	☒ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)	
CRS Category:	☒ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)	
Priority:	☒ High	☐ Medium	☐ Low
Alternatives:	No Action		Current problem exists
	Rely on state assessment		Not locally pertinent information, may take longer to conduct, may not be reliable or available to complete.
	Rely on federal assessment		Not locally pertinent information, may take longer to conduct, may not be reliable or available to complete.

Action 2026-Lone Tree-09. Comprehensive Outreach Program

Lead Agency:	Communications, City Manager's Office		
Supporting Agencies:	South Metro Fire Rescue, Douglas County		
Hazard(s) of Concern:	☒ Dam Failure ☒ Drought ☒ Earthquake ☒ Flood ☒ Geologic Hazards	☒ Hazardous Materials ☒ Pandemic ☒ Severe Weather ☒ Wildfire	
Description of the Problem:	The City currently does not have a comprehensive education and outreach program which addresses all identified hazards of concern. There is a need to educate residents, businesses, special districts, and HOAs about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods.		
Description of the Solution:	Create outreach materials, or utilize those from Douglas County, on hazard risks and methods of mitigation measures. Methods of distribution may include City events, the City newsletters, social media, the City website, and having the materials on display for the public at City libraries and offices. Outreach materials will be specified with education and information for each individual hazard of concern.		
Estimated Cost:	Low		
Potential Funding Sources:	City Budget		
Implementation Timeline:	1 year		
Goals Met:	3, 6		
Benefits:	This action will improve the current public education and outreach program in the City by including discussions on disaster preparedness and hazard mitigation to residents and business owners, which will contribute to the resiliency of the City.		
Impact on Future Development:	Not applicable		
Impact on Critical Facilities/Lifelines:	Businesses, which may be considered critical facilities or lifelines, would be more informed on how to prepare for emergency events and mitigate the risks of potential hazards. With these businesses becoming more resilient, this action would contribute to their continuity of operations.		
Impact on Capabilities:	This action would build upon the County's already existing public education and outreach program and adapt it to the City's needs.		
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☒ Education and Awareness Programs (EAP)	
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☒ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)	
Priority:	☒ High	☐ Medium	☐ Low
Alternatives:	No Action Rely on state or federal resources Use only a few methods for distribution	Current problem exists Resources may be generalized and not specific to the risks in the City Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance	

7. TOWN OF PARKER

This jurisdictional annex to the Douglas County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Town of Parker with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Parker, describes who participated in the planning process, assesses Parker's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

7.1 HAZARD MITIGATION PLANNING TEAM

The Town of Parker identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Town departments. The Emergency Manager represented the community on the Douglas County HMP Local Planning Committee and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 7-1 summarizes Town officials who participated in the development of the annex and in what capacity. Additional documentation of the Town's planning activities through Local Planning Committee meetings is included in Volume I.

Table 7-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Greg Epp, Emergency Manager Address: 20120 E. Mainstreet, Parker, CO 80138 Phone Number: 303-805-6532 Email: gepp@parkerco.gov	Name/Title: Andrew Coleman, Commander / Police Address: 18600 E Lincoln Meadows Pkwy., Parker, CO 80134 Phone Number: 303-805-6512 Email: AColeman@parkerco.gov
National Flood Insurance Program Floodplain Administrator	
Name/Title: Alex Mestdagh, Engineer Address: 20120 E. Mainstreet, Parker, CO 80138 Phone Number: 303-805-3204 Email: amestdagh@parkerco.gov	
Additional Contributors	
Name/Title: Chris Vanderpool, Town Clerk Method of Participation: Attended meetings.	
Name/Title: Michael Grabczyk, Stormwater Engineer Method of Participation: Attended meetings; provided information on collected worksheets.	
Name/Title: Greg Epp, Emergency Manager Method of Participation: Attended meetings; provided information on collected worksheets.	
Name/Title: Alex Mestdagh, Engineer Method of Participation: Provided information on collected worksheets.	
Name/Title: Jonathan Nelson, Deputy Chief Building Official Method of Participation: Provided information on collected worksheets.	

7.2 COMMUNITY PROFILE

7.2.1 Location

The Town of Parker's land consists of a wide range of topography encompassing mountain vistas, dramatic ridgelines, hills, and grass covered plains. Because of the Town's close proximity to the Denver metro area and multi-modal transportation facilities, the area is desirable to new residents. The lands surrounding Parker include Lone Tree, Castle Pines and open space to the west; Foxfield, Centennial and Aurora to the north; unincorporated residential areas to the east; and The Pinery and Castle Rock to the south. The current boundaries generally extend from the east side of Interstate 25. Highway 470 and South Parker Road come to a junction in the northern part of the Town, encompassing an area of 22.6 square miles.

7.2.2 History

The Town of Parker was incorporated in May of 1981 and included the Rowley Downs subdivision, the downtown area and the Parker Square and Parker Plaza commercial areas. Parker can trace its history to the establishment of the Pine Grove Post Office by Alfred Butters around 1862. Prior to that time, the area was used for hunting by Indians, including the ancient (prehistoric) Indians, the Plains-Woodland Indians and later (circa 1800s) mostly Arapaho, Cheyenne and Ute Indians. The incorporated area encompassed approximately one square mile and included 285 residents. Soon after incorporation in 1981, the Town adopted zoning and subdivision ordinances. The Town increased from one square mile at incorporation to 22.6 square miles currently. The Town's population has increased from less than 300 at incorporation to more than 68,000 currently. The Town of Parker offers a variety of services to their citizens ranging from police protection to recreation.

7.2.3 Governing Body

Parker has a Council/ Manager form of government with Town Council and Mayor elected at large and an appointed Town Manager who oversees the day-to-day operations of the organization. According to the Town of Parker website, "Councilmembers make policy decisions for the local government and approve the Town budget. They are given the power by the Town Charter to enact and provide for the enforcement of ordinances, which are Town laws" (Town of Parker n.d.)

Development of this annex was carried out by the members of the local mitigation planning team, whose members are listed in Table 7-1.

7.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

Parker performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities

- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day local government operations. As part of the hazard mitigation analysis, planning and /policy documents were reviewed and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. Development of an updated mitigation strategy provided an opportunity for Parker to identify opportunities for integrating mitigation concepts into ongoing Town procedures.

7.3.1 Planning and Regulatory Capability and Integration

Table 7-2 summarizes the planning and regulatory tools that are available to Parker.

Table 7-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
CODES, ORDINANCES, & REGULATIONS				
Building Code	Yes	Chapter 11.01 Parker admin code	State and Local	Town Administration
How has or will this be integrated with the HMP and how does this reduce risk? Promote the health, safety, convenience, order, prosperity and general welfare of the present and future inhabitants of the Town by providing the administration and enforcement of the technical codes adopted by the Town.				
Zoning/Land Development Ordinance	Yes	Chapter 13.04 Zoning Districts	Local	Town Administration
How has or will this be integrated with the HMP and how does this reduce risk? How has or will this be integrated with the HMP and how does this reduce risk? This LDO is enacted to preserve and promote the public health, safety, and welfare of the inhabitants of the Town and of the public generally and to encourage and facilitate the orderly growth and expansion of the Town. This LDO combines the provisions more commonly found in separate zoning and subdivision ordinances into a single land development ordinance that will cover all phases of development. The intent of the LDO is to: (a) Implement the provisions of the Town's Master Plan, as it may be amended by the Town Council from time to time; (b) Protect the public health, safety, comfort, convenience, prosperity, and welfare; (c) Address land development through the integration of traditional zoning and subdivision regulations; (d) Provide for a more efficient regulatory control system by including the review processes for all types and stages of development in one integrated code; and (e) Avoid overlapping, conflicting or inconsistent ordinance provisions that frequently occur as a result of numerous individual ordinances.				
Subdivision Code	Yes	Chapter 13.08.030 Subdivision Standards	Local	Town Administration
How has or will this be integrated with the HMP and how does this reduce risk? The purpose of this Section 13.08.030 is:				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency

(1)To promote the general health, safety, and welfare of the present and future inhabitants of the Town. Land proposed for subdivision shall be capable of being used safely for the intended purpose without danger to health or peril from fire, flood, geologic hazards, or other natural hazards.(2)To guide future growth and development within the Town and ensure adequate and efficient transportation, water, waste disposal, schools, fire and police protection, recreation and open space opportunities, and other services and facilities.(3)To encourage a diversity of housing types and densities in order to assure adequate housing for all persons.(4)To provide for the preservation and conservation of unique or distinctive natural areas, significant stands of vegetation; natural landmarks; significant wildlife habitats including breeding grounds, nesting areas, migration routes and wintering areas; drainage, riparian, and wetland areas; scenic views; identified aquifer recharge areas, historic features, and archaeologically sensitive sites.(5)To implement the Master Plan, the zoning standards in this LDO, and approved and recorded Development Guides and plans where property is zoned Planned Development.(6)To protect both urban and nonurban development by minimizing the conflicts between the land uses and structures.(7)To ensure that the necessary services and facilities are available and have sufficient capacity to serve the proposed subdivision.(8)To provide for an adequate and accurate system to record land subdivisions, ensuring proper legal descriptions and survey monumentation, in order to inform the public and especially future residents of the facts about the subdivision thereby safeguarding the interests of the public, the homeowner, the property owner and the Town.(9)To implement the Roadway Design and Construction Criteria Manual, the Storm Drainage and Environmental Criteria Manual and other applicable Town regulations.

Site Plan Code	Yes	Section 13	Local and County	Town Administration

How has or will this be integrated with the HMP and how does this reduce risk?

This LDO is enacted to preserve and promote the public health, safety, and welfare of the inhabitants of the Town and of the public generally and to encourage and facilitate the orderly growth and expansion of the Town. This LDO combines the provisions more commonly found in separate zoning and subdivision ordinances into a single land development ordinance that will cover all phases of development. The intent of the LDO is to:

- (a) Implement the provisions of the Town's Master Plan, as it may be amended by the Town Council from time to time;
- (b) Protect the public health, safety, comfort, convenience, prosperity, and welfare;
- (c) Address land development through the integration of traditional zoning and subdivision regulations;
- (d) Provide for a more efficient regulatory control system by including the review processes for all types and stages of development in one integrated code; and
- (e) Avoid overlapping, conflicting or inconsistent ordinance provisions that frequently occur as a result of numerous individual ordinances.

Stormwater Management Code	Yes	Chapter 4.08, Stormwater Management Program	Local	Town Administration

How has or will this be integrated with the HMP and how does this reduce risk?

The purpose of this Chapter is to promote the protection of the public health, safety and welfare from damage from stormwater runoff by requiring that property owners in the Town pay for a share of the cost of the facilities reasonably necessary to manage such stormwater. Water from stormwater runoff may occur which exceeds the capacity of public facilities constructed and maintained by funds made available under this Chapter. This Chapter does not imply that real property liable for the stormwater utility fee established herein will always be free from stormwater flooding or flood damage. This Chapter does not purport to reduce the need or the necessity for any property owner to obtain flood insurance.

Post-Disaster Recovery/ Reconstruction Code	No	-	-	-

How has or will this be integrated with the HMP and how does this reduce risk?

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Real Estate Disclosure Requirements	Yes	C.R.S. 38-35.7-102	State	Sellers and Landlords of commercial or residential property

How has or will this be integrated with the HMP and How has or will this be integrated with the HMP and how does this reduce risk?

In Colorado, real estate transactions involving properties located in flood zones are subject to specific disclosure requirements. Sellers must disclose any known flood damage to the property, which includes past flooding experiences, the presence of a floodplain, and whether the property is covered by flood insurance. Failure to disclose this information can lead to legal repercussions, including claims of misrepresentation or fraud. Sellers are required to provide buyers with access to the current Flood Insurance Rate Map (FIRM) and any related documentation that outlines the specific flood risk associated with the property. This transparency is crucial for buyers to make informed decisions and understand their liabilities regarding flood insurance and the potential for future flooding events.

Growth Management	No	-	-	-

How has or will this be integrated with the HMP and how does this reduce risk?

Environmental Protection Ordinance(s)	Yes	Section 13	Local/State	Town Administration

How has or will this be integrated with the HMP and how does this reduce risk?

These standards promote a high quality of design in order to protect the public health, safety, and welfare; promote environmental protection and conservation; and preserve the quality of life for Town residents and businesses. To preserve or protect: Environmentally sensitive areas: Areas including, but not limited to, 100-year floodplains, wetlands, wildlife habitat and aquifer recharge areas.

Flood Damage Prevention Ordinance	Yes	Chapter 13.08.040(a) Floodplain Regulations	Federal, State, County and Local	Floodplain Administrator

How has or will this be integrated with the HMP and how does this reduce risk?

The Town's floodplain regulations (Ch. 13.05.010 from ordinances 3.171.3 §1, 2016; 1.467 §§31, 32, 2015; 3.01.102 §1, 2013) are currently meeting or exceed current NFIP requirements. The Town is also recognized by FEMA as having automatic adoption language for all new maps and studies to keep the Town in compliance without amending Town Code. Additionally, enforcement exceeds NFIP requirements as all areas of the SFHA are within stream buffer areas as defined by the Town's stream protection standards (Ch. 13.10.220 [Stream Protection Standards] from ordinances 3.171.3 §2, 2016; 1.467 §32, 2015; 3.171.2 §1, 2006; 3.171.1 §1, 2003; 3.171 §1, 2001). All new and redevelopment must comply with these standards to receive any development permits from the Town. The ordinance also prohibits unauthorized camping in designated floodplains (Ch. 13.05.015 from ordinance 3.01.123 §1, 2020).

The Director of Engineering is the Floodplain administrator for the Town of Parker and is responsible for enforcing the code, reviewing permits, determining the base flood elevation as needed, obtaining and maintaining information related to elevations of new or substantially improved structures, variance procedures, and enforcing provisions to reduce flood hazards in the Town.

Wellhead Protection	Yes	13.02.030, 13.06.120, 13.06.140, 13.06.030	Federal, State, County and Local	Town Administration

How has or will this be integrated with the HMP and how does this reduce risk? Conditions on locations in relation to floodplains and floodways; natural drainage and waterways; significant native trees and vegetation; wildlife travel corridors; special habitat features such as raptor nests, key nesting, breeding or feeding areas for birds; fox and coyote dens; prairie dog colonies more than twenty-five (25) acres in size; remnant native prairie habitat; plains cottonwood galleries; natural or man-made lakes and ponds and any wetland greater than one-quarter (¼) acre in size. Additional conditions on access and fencing

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Emergency Management Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Change Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
PLANNING DOCUMENTS				
General/Comprehensive Plan	Yes	Parker 2035 Master Plan	Local	Town Administration
How has or will this be integrated with the HMP and how does this reduce risk?				
- The Parker 2035 MP is a policy document that provides vision, direction and a defined achievable future for the Town by establishing specific goals and strategies for land use; community appearance and design; housing and neighborhoods; jobs and economic vitality; transportation; public services and facilities; natural resource protection; open space and recreation; history, arts and culture; and regional coordination. Does the plan provide adequate space for expected future growth in areas located outside natural hazard areas? - The Master Plan is used in conjunction with several other planning documents, both regulatory and advisory, including the Land Development Ordinance and Standards and Guidelines for Development.				
Capital Improvement Plan	Yes	Reviewed annually	Local	Engineering Dept.
How has or will this be integrated with the HMP and how does this reduce risk?				
The Capital Improvement Program (C.I.P.) provides replacement or construction of bridges/roadways, paving and widening of existing roadways within the Town of Parker. Maintaining critical infrastructure as needed to ensure capabilities are met for emergency response, evacuation and overall safety of citizens.				
Disaster Debris Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Floodplain Management or Watershed Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Stormwater Management Plan	Yes	Town Stormwater Drainage Manual	Local	Stormwater Engineer
How has or will this be integrated with the HMP and how does this reduce risk?				
The comprehensive stormwater management program is aimed at preventing flooding and protecting water quality through the planning, design, construction, and maintenance of public drainage infrastructure. Key components include a Stormwater Utility responsible for public drainage, partnership with the Mile High Flood District (MHFD) for regional facilities, and public education on preventing pollution. The Town also enforces Storm Drainage and Environmental Criteria and Standards and Criteria for development and offers resources for residents and businesses to report issues and participate in pollution prevention.				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Open Space Plan	Yes	Open Space, Trails and Greenways Master Plan, July 11, 2022	Local	Town Administration
How has or will this be integrated with the HMP and how does this reduce risk? The purpose of this plan is to: • Guide the assessment, conservation and management of open space as well as the assessment, linking and management of the trail system; • Preserve open space and trail corridors for future generations; • Enhance the linkages between open space, trails and the built environment; and • Ensure that open space and trail linkages are appropriate, seamless and safe.				
Urban Water Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Habitat Conservation Plan	Yes	Douglas County Habitat Conservation Plan	Federal, County and Local	Town and County
How has or will this be integrated with the HMP and how does this reduce risk? The Douglas County Habitat Conservation Plan reflects a lengthy process undertaken by Douglas County and the Towns of Castle Rock and Parker (Applicants) to gain compliance with the Endangered Species Act. The Applicants are seeking incidental take authorization for identified activities (e.g., road widening, bridge replacement, and trails maintenance and construction, among others) that must be conducted by the Applicants and occur over the next 10 years within the Riparian Conservation Zone. This document addresses and integrates the processes and requirements of Endangered Species Act and National Environmental Policy Act into one document.				
Economic Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Wildfire Protection Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Forest Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Transportation Plan	Yes	Town of Parker Transportation Master Plan, March 2014	Local	Town Administration
How has or will this be integrated with the HMP and how does this reduce risk? The TMP serves as the Town's long-range plan for travel and mobility. This TMP provides policy guidance and articulates overall transportation policies, goals, strategies and priorities that were developed through a public process informed by technical expertise. This TMP will be used to align transportation decisions with future development impacts and analyze how transportation capacity aligns with a community's land use and economic development goals. Finally, this TMP offers a framework for regulatory changes that may be needed to align with the plan vision.				
Agriculture Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Climate Action/ Resilience/Sustainability Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Tourism Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Business/ Downtown Development Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Other How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
RESPONSE/RECOVERY PLANNING				
Emergency Operations Plan How has or will this be integrated with the HMP and how does this reduce risk? The EOP details the immediate actions and coordination needed to manage those risks when they materialize, creating a comprehensive system from prevention to response.	Yes	Emergency Operations Plan, 2025	Local	Emergency Management
Continuity of Operations Plan How has or will this be integrated with the HMP and how does this reduce risk? COOP Plans are departmental and identify roles and succession plans as needed to respond to several different situations including emergency response.	Yes	Continuity of Operations Plan, 2024 and 2025	Local	Emergency Management
Substantial Damage Response Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Threat and Hazard Identification and Risk Assessment How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Post-Disaster Recovery Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Public Health Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Other How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-

7.3.2 Development and Permitting Capability

Table 7-3 summarizes the capabilities of Parker to oversee and track development.

Table 7-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits?	Yes	-
- If you issue development permits, what department is responsible? - If you do not issue development permits, what is your process for tracking new development?	-	Community Development and Public Works
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	Floodplain
Do you have a buildable land inventory?	No	-
If you have a buildable land inventory, please describe		
Describe the level of buildout in your jurisdiction.	N/A	Based on the General land use plan and potential growth, current estimates are for a population of 80,000 to 90,000 residents by 2040. Current zoned projects allow for an additional un-platted or planned dwelling units of 9,330.

7.3.3 Administrative and Technical Capability

Table 7-4 summarizes potential staff and personnel resources available to Parker and their current responsibilities that contribute to hazard mitigation.

Table 7-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
ADMINISTRATIVE CAPABILITY		
Planning Board	Yes	The Planning Commission consists of five to nine regular board members with three alternates. It serves as an advisory board to the Town Council, providing recommendations on land use and related development issues. Commission members are expected to attend meetings twice per month and participate in the efforts of the Planning Commission.
Zoning Board of Adjustment	Yes	Combined with Planning Commission.
Planning Department	Yes	The Planning Division consists of Comprehensive Planning and Development Review.
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	Yes	The Economic Development Division offers a variety of service for new and existing businesses.

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Public Works/Highway Department	Yes	The Department of Engineering/Public Works oversees the following divisions: Capital Improvements and Construction Services, Engineering Development Services, Facilities Services, Fleet Services, Stormwater Utility, Streets Maintenance and Traffic Services.
Construction/Building/Code Enforcement Department	Yes	The Parker Building Division enforces the requirements of the adopted building, plumbing, mechanical and electrical codes in a professional and unbiased manner.
Emergency Management/Public Safety Department	Yes	The Office of Emergency Management, a division of the Parker Police Department, is tasked with preventing, preparing for, responding to and recovering from large-scale emergencies and disasters, both natural and man-made, within the Town of Parker.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	Road improvements and transportation issues are some of the biggest concerns facing the Town of Parker. The Town is continually working on improving the transportation network and has recently completed several critical road projects, with many more in the works. Many of the projects focus on providing alternate routes around our community.
Mutual aid agreements	Yes	County
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	-
Other	Yes	The Finance Department is responsible for managing the Town of Parker's financial resources.
TECHNICAL/STAFFING CAPABILITY		
Planners or engineers with knowledge of land development and land management practices	Yes	Community Development & Engineering/Public Works
Engineers or professionals trained in building or infrastructure construction practices	Yes	Community Development, Engineering/Public Works, Building Division
Planners or engineers with an understanding of natural hazards	Yes	Community Development & Engineering/Public Works
Staff with expertise or training in benefit/cost analysis	Yes	Community Development & Engineering/Public Works
Professionals trained in conducting damage assessments	No	Currently working on training program
Personnel skilled or trained in GIS and/or Hazus applications	Yes	Information Technology
Staff that work with socially vulnerable populations or underserved communities	No	-
Environmental scientists familiar with natural hazards	Yes	On-call geotechnical consulting firms (when needed via Engineering/Public Works contract)

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Surveyors	No	On-call surveying consulting firms (when needed via Engineering/Public Works contract)
Emergency manager	Yes	Position to filled in 2025
Grant writers	Yes	Finance Department
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

7.3.4 Fiscal Capability

Table 7-5 summarizes financial resources available to Parker.

Table 7-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	The Town is eligible, but does not currently accept these funds
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	Yes, with a vote of the public (TABOR)
User fees for water, sewer, gas, or electric service	Yes (Stormwater Utility – see Chapter 4.08 of the Town)
Impact fees for homebuyers or developers of new development/homes	Yes
Stormwater utility fee	Yes
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	Yes
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	No
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

7.3.5 Education and Outreach Capability

Table 7-6 summarizes the education and outreach resources available to Parker.

Table 7-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	The Town's mission is to enrich the lives of residents by providing exceptional services, engaging community resources and furthering

Outreach Resources	Available? (Yes/No)	Comment
		an authentic hometown feel. To support this objective, the Town has a Communications and Engagement team under the direction of the Town Manager's Office that focuses on four key areas: Citizen Engagement, Civic Programs, Communications and Community Events.
Personnel skilled or trained in website development	Yes	Communications and Engagement staff maintains the Town's website, including the online community calendar and email updates, produces the monthly Talk of the Town newsletter, the Annual Report and a variety of other publications and brochures about Town programs and services.
Hazard mitigation information available on your website	Yes	Be Prepared links
Social media for hazard mitigation education and outreach	Yes	Be Prepared link on website and social media updates as needed
Citizen boards or commissions that address issues related to hazard mitigation	Yes	Planning Commission
Warning systems for hazard events	Yes	Motorola RAVE
Natural disaster/safety programs in place for schools	No	Covered under Douglas County School District
Organizations that conduct outreach to socially vulnerable populations and underserved populations	No	-
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	Weather Spotter Classes, Disaster Preparedness Classes

7.3.6 Community Classifications

Table 7-7 summarizes classifications for community programs available to Parker.

Table 7-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	Yes	Class 5	10/20/2016
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	4/3	10/20/2025
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
National Weather Service StormReady Certification	Yes	-	2018
Firewise Communities classification	No	-	-
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable

7.4 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 7-1 is responsible for maintaining this information.

7.4.1 NFIP Statistics

Table 7-8 summarizes the NFIP policy and claim statistics for Parker.

Table 7-8. Parker NFIP Summary of Policy and Claim Statistics

Policies in Force	38
Paid Claims	3
# Repetitive Loss Properties (NFIP definition)	0
# Repetitive Loss Properties (FMA definition)	0
# Severe Repetitive Loss Properties	0

NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than \$1,000 were paid by the NFIP within any rolling 10-year period since 1978.

FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.

Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.

Source: FEMA 2025

7.4.2 Flood Vulnerability Summary

Table 7-9 provides a summary of the NFIP program in Parker.

Table 7-9. NFIP Summary

NFIP Topic	Comments
Flood Vulnerability Summary	
Describe areas prone to flooding in your jurisdiction.	The Town has very few areas prone to flooding outside of open space and stream parcels. Only a handful of residential or commercial properties are encumbered by 100-year floodplain and none of those would be considered prone to flooding.
Do you maintain a list of properties that have been damaged by flooding?	Yes – however, no properties have been damaged by flooding related to stream flows in many years.
Do you maintain a list of property owners interested in flood mitigation?	Yes, the Town maintains a list of property owners who are interested in flood mitigation.

NFIP Topic	Comments
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	None at this time.
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	No, not at this time.
How do you make Substantial Damage determinations?	N/A
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	None, currently.
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	None that are known to the Town.
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Yes, the flood maps adequately address flood risk within the Town.
NFIP Compliance	
What local department is responsible for floodplain management?	Engineering/Public Works
Are any certified floodplain managers on staff in your jurisdiction?	Yes, there are certified flood managers at the Town.
Do you have access to resources to determine possible future flooding conditions from climate change?	The Town keeps up with research and studies from regional partners such as the Mile High Flood District related to the affects of climate change on rainfall and other elements related to flooding.
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	No, not at this time.
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	Engineering capability, inspections, permit review, some education and outreach
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	This is reviewed through the building permit process and must meet the requirements set forth in the Town's Municipal Code.
What are the barriers to running an effective NFIP program in the community, if any?	None, at this time.
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No, the Town does not have any outstanding NFIP compliant violations.
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	CAV: October 28, 2005 CAC: July 28, 2023
What is the local law number or municipal code of your flood damage prevention ordinance?	Town of Parker Municipal Code - 13.08.040
What is the date that your flood damage prevention ordinance was last amended?	2024
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	Exceeds - The Town's floodplain regulations (Ch. 13.05.010 from ordinances 3.171.3 §1, 2016; 1.467 §§31, 32, 2015; 3.01.102 §1, 2013) are currently meeting or exceed current NFIP requirements. The

NFIP Topic	Comments
	Town is also recognized by FEMA as having automatic adoption language for all new maps and studies to keep the Town in compliance without amending Town Code. Additionally, enforcement exceeds NFIP requirements as all areas of the SFHA are within stream buffer areas as defined by the Town's stream protection standards (Ch. 13.10.220 from ordinances 3.171.3 §2, 2016; 1.467 §32, 2015; 3.171.2 §1, 2006; 3.171.1 §1, 2003; 3.171 §1, 2001). All new and redevelopment must comply with these standards to receive any development permits from the Town. The Town also maintains elevation certificates through the Building Department who collects and maintains the certificates in eTRAKit. Currently rated as a Class 5 Community with the Community Rating System (CRS)
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	The Town has modern stream buffer requirements and generally prohibits development within 100-year floodplains, both of which greatly benefit floodplain management and meeting NFIP requirements. These requirements are enforced through development review and permitting.
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	Yes, looking to maintain a Class 5 rating for the Town.

7.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 7-10 through Table 7-12.

Table 7-10. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
2020				
Total Permits	390	26	27	443
Permits within SFHA	0	0	0	0
2021				
Total Permits	639	21	21	681
Permits within SFHA	0	0	0	0
2022				
Total Permits	743	3	23	769
Permits within SFHA	0	0	0	0
2023				

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
Total Permits	625	31	15	671
Permits within SFHA	0	0	0	0
2024				
Total Permits	317	68	21	406
Permits within SFHA	0	0	0	0

SFHA = Special Flood Hazard Area (1% flood event)

Table 7-11. Recent Major Development and Infrastructure from 2020 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones	Description / Status of Development
Tanterra	Residential and Commercial	3305	Generally located south of the intersection of Chambers Road and Hess Road	Steeps slopes and flood plains preserved as open space. Located partially within the State wildfire hazard area	Under Construction - Site work underway. Chambers Road Completed from Stroh Road to Hess Road and Collector Roads complete.
Looking Glass	Residential and Commercial	1795	Generally located southwest of the intersection of Stroh Road and Crowfoot Valley Road	Steeps slopes and flood plains preserved as open space. Located partially within the State wildfire hazard area	Under Construction - Approximately 1/3 complete
Trails at Crowfoot	Residential and Commercial	890	6749 Crowfoot Valley Rd	None	Under Construction - about 90% complete
Flexential Data Center	Data Center	N/A	Located at the southwest corner of Chambers Road and Compark Boulevard	None	Under Constructions - 276,200 sq. ft. data center
Juniper on Mainstreet	Apartments and Commercial	-	Located on the west side of Pine Drive south of Mainstreet	None	Complete
Newlin Crossing	Residential and Commercial	450	Located at the northeast corner of Chambers Road and Mainstreet	Floodplain as preserved open space	Under Construction - Approximately 1/4 complete
The Alder (Compark Village) Apartments	Apartments	300	Generally located on the south side of Belford Avenue west of Chamber Road	None	Under Construction
Parker + Pine Apartments	Apartments	170	9550 Twenty Mile Rd, Parker, CO 80134	None	Complete

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones	Description / Status of Development
Compark Village South	Single Family Residential	306	Generally located on the south side of Belford Avenue west of Chamber Road	None	Under Construction - Approximately 1/2 complete
Avalon Bay	Apartments	309	Located southeast of Stroh Road and Crowfoot Valley Road	Hazardous Materials, Wildfire	Under Construction
Adventhealth hospital tower addition	Commercial	N/A	Located on the east side of Parker Road south of Crown Crest Boulevard	None	Under Construction - 7 story 135,500 sq. ft. addition to an existing hospital
Kime Ranch	Single Family Homes	150	Located north of Mainstreet and Willow Creek Road	Hazardous Materials, Wildfire	Under Construction - Site work underway
Chambers High Point	Apartments	192	Generally located on the south side of Belford Avenue west of Chamber Road	None	Under Construction

Table 7-12. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones	Description / Status of Development
Compark Village South	Commercial and Industrial	-	39.55476, -104.823	Flood, Hazardous Materials, Wildfire	Anticipated - No Approval To Date
Cottonwood Highlands	Commercial	-	39.55291, -104.796	Hazardous Materials	Anticipated - No Approval To Date
Highlands at Kings Point	Commercial	-	39.5595, -104.772	Hazardous Materials, Wildfire	Anticipated - No Approval To Date
Newlin Crossing	Commercial	-	39.51808, -104.812	Hazardous Materials, Wildfire	Approved by Board Committee
PACE Lot 2	Commercial	-	39.51775, -104.757	Hazardous Materials	Anticipated - No Approval To Date
Perry Lane	Mixed Use	84	39.49404, -104.773	Hazardous Materials, Geologic Hazards, Wildfire	Approved by Board Committee
Pine Curve	Mixed Use	-	39.51968, -104.753	Hazardous Materials, Wildfire	Anticipated - No Approval To Date
Pope Property	Mixed Use	-	39.50929, -104.77	Flood, Hazardous Materials, Geologic Hazards, Wildfire	Anticipated - No Approval To Date

7.6 JURISDICTIONAL RISK ASSESSMENT

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Parker's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

7.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Town are shown in Figure 7-1 through Figure 7-2. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Parker has significant exposure. The maps show the location of potential new development, where available.

DRAFT

Figure 7-1. Parker Hazard Area Extent and Location Map 1

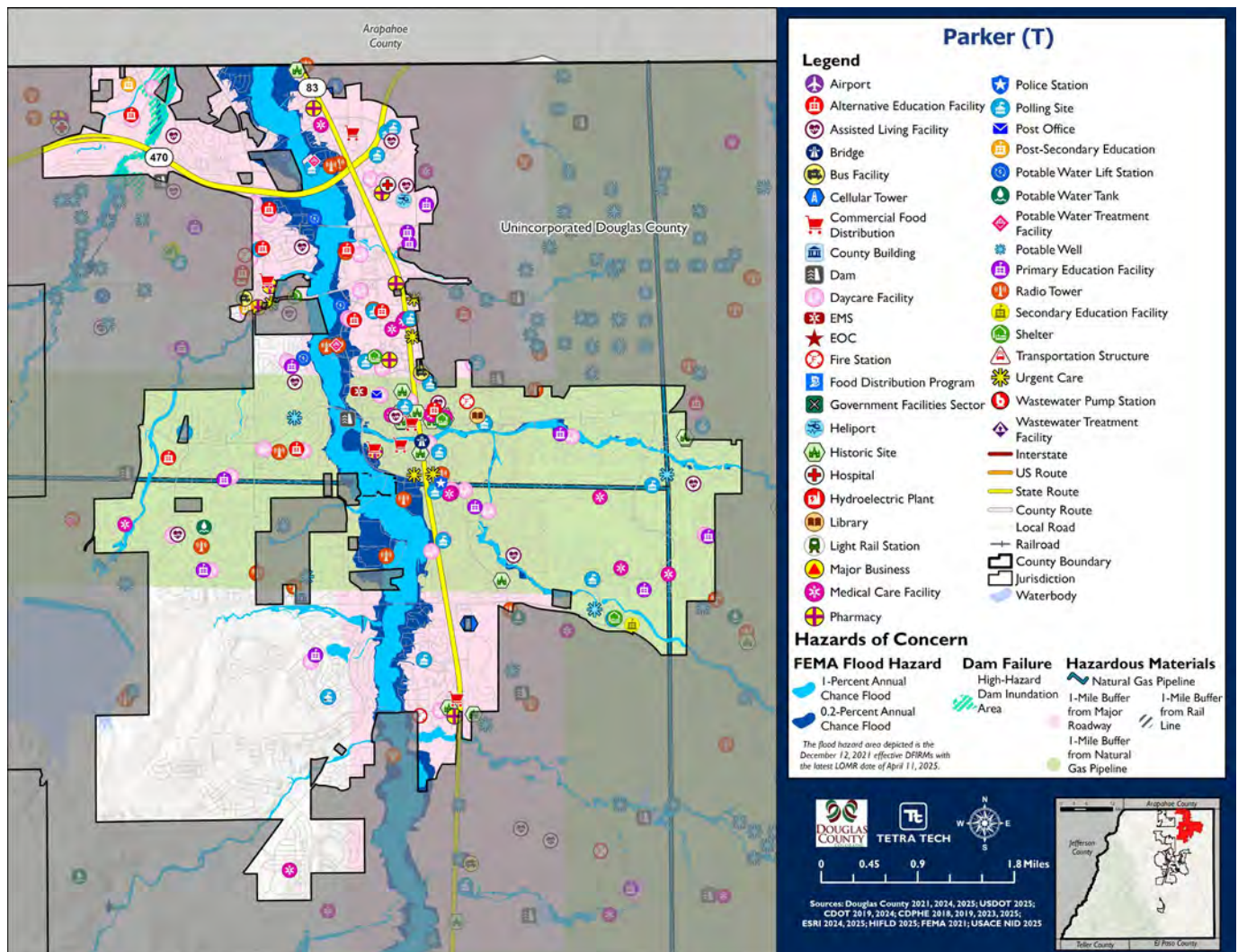
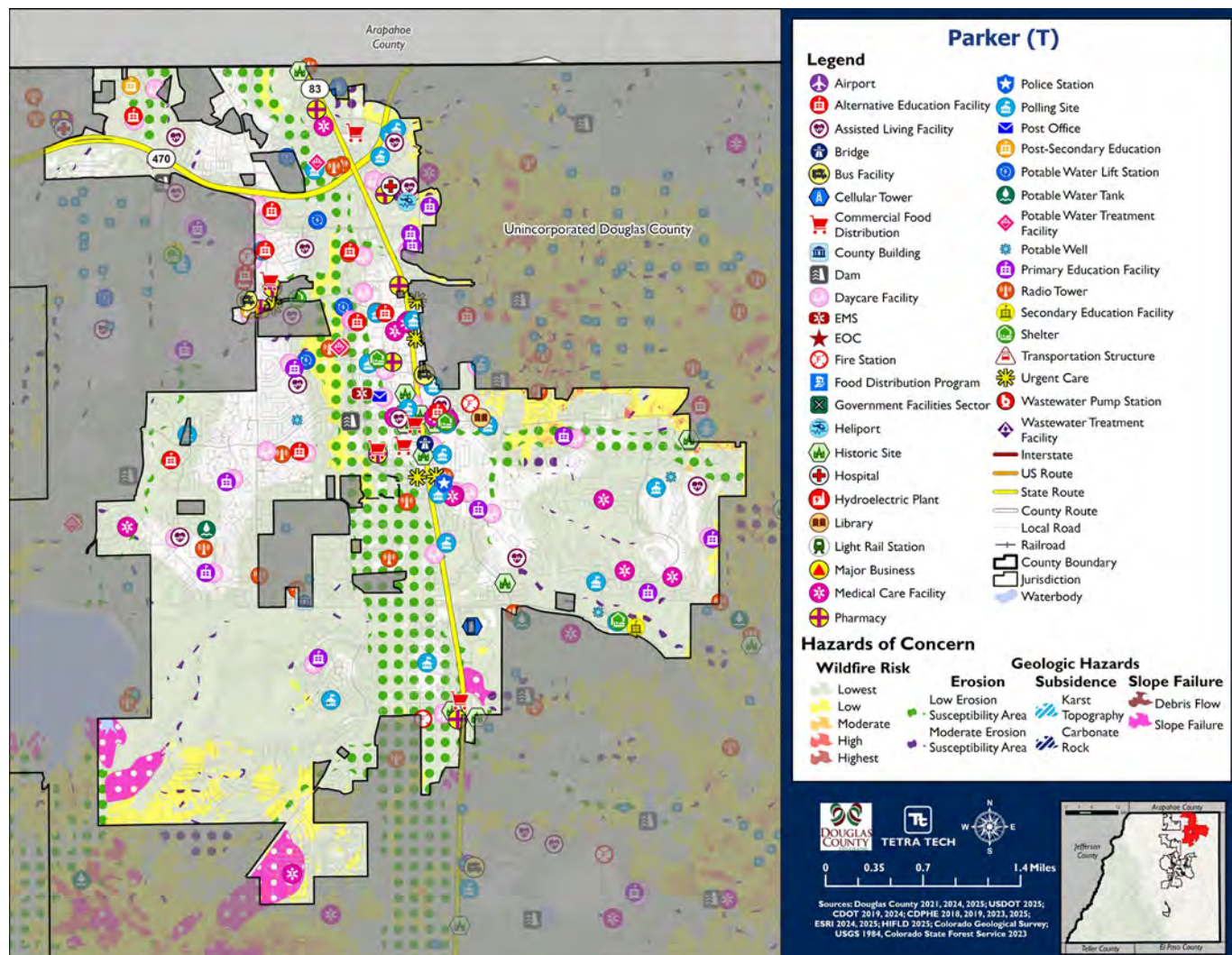


Figure 7-2. Parker Hazard Area Extent and Location Map 2



7.6.2 Hazard Event History

The history of natural and non-natural hazard events in Parker is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its jurisdictions. Table 7-13 provides details on loss and damage in Parker during hazard events since the last hazard mitigation plan update.

Table 7-13. Hazard Event History in Parker

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses
September 6, 2019	Severe Weather	N/A	Severe thunderstorms produced a combination of large hail (1.25 inches) and heavy rain. A brief tornado touched down in an open field near Highlands Ranch. A blast of lightning triggered a house fire in Douglas County, causing extensive damage.	There was no direct effect to Parker.
October 29-30, 2019	Severe Weather	N/A	A winter storm brought record breaking temperatures and up to a foot of snow. Numerous schools were closed due to heavy snow and hazardous road conditions. Storm totals included: 10 inches near Parker; 7.5 inches near Castle Pine.	No loss data to report.
January 20, 2020 - May 11, 2023	Pandemic EM-3436-CO, DR-4498-CO	Yes	During the COVID-19 pandemic disaster declaration, there were a reported 102,146 cases of COVID-19 and 527 COVID-19 related deaths in Douglas County.	No loss data to report.
March 13-14, 2021	Severe Weather	N/A	Strong winds compounded with heavy snowfall made the roadways impassable in the afternoon and evening. Peak wind gusts to 48 mph produced extensive drifting snow. Drifts ranged from 3 to 6 feet deep. The heavy wet snow caused extensive tree damage and produced power outages.	Property Damages caused by snow plow activity. Total cost: \$2,792 Tree damage - \$1,250 Total loss: \$4,042
November - December 2021	Drought	N/A	Portions of the County were in a severe to extreme drought classification (D2/D3) through the months of November and December.	No loss data to report.
February 23, 2023	Severe Weather	N/A	Bands of moderate to heavy snow showers coupled with strong winds produced poor visibilities and hazardous driving conditions. During the morning hours on the 23rd, wind chill	No loss data to report.

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses
			temperatures ranged from -25°F to -30°F.	
May 12-13, 2023	Flood	N/A	Swollen creeks and streams produced flooding and flash flooding. Numerous hiking trails in Castlewood Canyon State Park were closed as they were underwater and impassable. Three men in the foothills of Douglas County had to be rescued when their vehicle got stuck in snow along Rampart Range Road in Pike National Forest.	No loss data from flood waters to report. Auto damage due to Hail in associated storm: \$9,692
June 22, 2023	Severe Weather DR-4731-CO	Yes	An EF1 tornado touched down just south of CO-470 in the city of Highlands Ranch. Preliminarily the tornado was on the ground for 6.3 miles. No injuries were reported but over 100 trees were downed. Some window/shingle damage has been noted to both houses and commercial properties. Up to 2.5 inches hail occurred.	Significant auto damage due to hail. Total loss \$103,136
January 13-16, 2024	Severe Weather	N/A	A long duration snowfall event occurred resulting in several feet of snow. Total snowfall accumulations across the urban corridor and northeast were light, with storm totals generally less than 6 inches, but the icy conditions did cause some travel impacts. Wind chill temperature dropped to -34°F; the record low of -19°F was tied on the morning of the 16th. Some of the plains locations dropped down to -30°F.	No loss data to report.
March 14, 2024	Severe Weather	N/A	Snowstorm – Town Closure	No loss data to report.
June 9, 2024	Severe Weather	N/A	Slow moving thunderstorms produced hail (1.25 inches) and heavy rainfall. There were reports of cars being swamped due to rising waters.	Significant auto damage due to hail. Total loss \$160,796
July 30 – August 7, 2024	Wildfire	N/A	A fire was contained August 7th after reaching about 579 acres. No structures were lost in the fire. Several firefighters were treated for heat exhaustion. Mandatory evacuations were	No loss data to report.

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses
			ordered for the Deer Creek Mesa area and several subdivisions in the area of Ken Caryl.	

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

7.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Parker .

Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions. Parker reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Town indicated the following:

- Geologic Hazards: adjust to low hazard ranking. Parker has reduced areas for geological hazards.

Table 7-14 shows Parker's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 7-14. Hazard Ranking

Hazard	Rank
Dam Failure	Low
Drought	High
Earthquake	Low
Flood	Medium
Geologic Hazards	Low
Hazardous Materials	Medium
Pandemic	Medium
Severe Weather	High
Wildfire	High

Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction

Critical Facilities

Table 7-15 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 7-15. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Event	0.2% Event		
Parker Bar CCC	Dam	Yes	Yes	2026-Parker-09, 2026-Parker-10	No
Parker Water and Sanitation District	Polling Site	Yes	Yes	2026-Parker-10	No
Pioneer Elementary Child Care Program	Daycare Facility	Yes	Yes	2026-Parker-10	No
Grazi Communications, LLC	Radio Tower	No	Yes	2026-Parker-10	No
Grazi Communications, LLC	Radio Tower	No	Yes	2026-Parker-10	No
Parker Fire Protection District	Radio Tower	No	Yes	2026-Parker-10	No
Parker Fire Protection District	Radio Tower	No	Yes	2026-Parker-10	No
Parker Water and Sanitation District	Radio Tower	No	Yes	2026-Parker-10	No
Parker Water and Sanitation District	Radio Tower	No	Yes	2026-Parker-10	No
Parker Water and Sanitation District	Radio Tower	No	Yes	2026-Parker-10	No
Parker Water and Sanitation District	Radio Tower	No	Yes	2026-Parker-10	No
Parker Water and Sanitation District	Radio Tower	No	Yes	2026-Parker-10	No
Parker Water and Sanitation District	Radio Tower	No	Yes	2026-Parker-10	No
Parker Water and Sanitation District	Radio Tower	No	Yes	2026-Parker-10	No
Parker Water and Sanitation District	Radio Tower	No	Yes	2026-Parker-10	No
Parker Water and Sanitation District	Radio Tower	No	Yes	2026-Parker-10	No
American Academy Kindieprep	Daycare Facility	No	Yes	2026-Parker-10	No
Challenge to Excellence Charter School	Daycare Facility	No	Yes	2026-Parker-10	No
Ivybrook Academy Parker Campus	Daycare Facility	No	Yes	2026-Parker-10	No
Structure F-17-HI	Bridge	No	Yes	2026-Parker-10	No
SuperTarget	Commercial Food Distribution	No	Yes	2026-Parker-10	No
CVS	Pharmacy	No	Yes	2026-Parker-10	No
Lincoln Meadows Liftstation	Potable Water Lift Station	No	Yes	2026-Parker-10	No
Challenger Park Lift Station	Potable Water Lift Station	No	Yes	2026-Parker-10	No
South Water Reclamation Facility	Potable Water Treatment Facility	No	Yes	2026-Parker-10	No
North Water Reclamation Facility	Potable Water Treatment Facility	No	Yes	2026-Parker-10	No

Source: Douglas County; CDOT; CDPHE; ESRI; HIFLD; US Energy Information Administration; FEMA

7.6.4 Identified Issues

After a review of Parker's hazard event history, hazard rankings, hazard location, and current capabilities, Parker identified the following vulnerabilities within the community:

- The Town is maintaining the old I-codes from 2021 that are outdated.
- The Town Landscape Code does not address drought issues.
- The Town faces risk from wildfires but does not have a comprehensive education and outreach program to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods.
- The Town has identified bank stabilization projects that are needed in the area but not all unstable areas that were identified have been mitigated.
- The Town needs updated coordinate response for wildfire response plans and assistance to mitigate future wildfire events.
- Undersized culverts often result in the flooding of roadways due to the inability to handle the influx of water. Debris build-up in these undersized pipes may also result in water back-flow, leading to further roadway flooding instances and impacting the integrity of the culverts. Culverts in the Town are undersized or have been damaged from instances of flooding and the debris caused by severe storms including culverts located on the following roads:
 - Parker Road Corridor
 - Riva Ridge Drive
- There is degradation of streams causing floodplains to shift onto critical facilities. Viable solutions have not yet been determined to protect the critical facilities.
- Major disaster events can result in large amounts of debris that overwhelm normal trash collection operations. Depending on the amount generated, temporary staging areas for debris collection may be needed. The Town does not have a disaster debris management plan in place. During a disaster that results in debris, a plan with outlined responsibilities is needed to adequately address post-disaster cleanup operations.
- The Town has one low hazard and one high hazard dam within its jurisdiction. These structures have the potential to impact the people, property, infrastructure, and environment nearby.
- Critical facilities need to be protected to the 500-year flood level. There are multiple critical facilities located in the flood hazard area, including a dam, polling site, daycare facilities, radio towers, bridge, commercial food distribution center, pharmacy, potable water lift stations, and potable water treatment facilities (refer to Table 7-16 for facility names).
- The Town faces risk from pandemic but does not have a comprehensive education and outreach program to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods. The Town does not currently have hazard mitigation information and outreach on the Town website.

7.7 MITIGATION STRATEGY AND PRIORITIZATION

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

7.7.1 Past Mitigation Action Status

Table 7-16 indicates progress on the Town's mitigation strategy identified in the 2021 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

7.7.2 Additional Mitigation Efforts

In addition to the mitigation actions completed in Table 7-16, Parker identified the following mitigation efforts completed since the last HMP:

- The Parker 2035 Master Plan was updated to add goals and strategies that further address natural hazards and mitigation.
- The Town has completed the identification of bank stabilization projects in drainage areas. Drainage projects in West Stroh and Cherry Creek have also been completed.
- The Town has completed the update of the Land Development Ordinance to include natural hazards (floodplains and steep slopes).

Since the adoption of the County's first HMP, Parker has made significant mitigation progress in the following areas:

- Plan development
- Bank stabilization and erosion control
- Stormwater management

Table 7-16. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
Action PAR1	Codes	Flood	Building Division, Staff and Council	Maintain current building codes and adopted new codes as they are implemented	1. In Progress 2. Currently on the 2021 I-codes working to adopt the 2024 I-codes along with State model codes. Adoption delayed due to the added State Model code mandates. Code adoption currently on track for June 30 th 2026 adoption.	1. Include 2. The Town is currently maintaining the 2021 I-codes and will work to adopt the new 2024 I-codes along with the State model codes. Code adoption is on track for June 30 th 2026 adoption. 3. N/A
Action PAR2	Master Plan	All Hazards	Community Development, Staff	Update the Parker 2035 Master Plan to add goals and strategies that further address natural hazards and mitigation	1. In Progress 2. N/A	1. Include in the 2026 HMP 2. N/A 3. N/A
Action PAR3	Land Development Ordinance	All Natural Hazards	Community Development, Staff	Update to Land Development Ordinance to further address and preserve areas of natural hazard and mitigate impact associated with natural hazards and update to landscaping code for more drought tolerant plant materials and design	1. In Progress 2. Initial update completed that addressed Natural Hazards (Floodplains and steep slopes) Phase 2 Landscape Code rewrite budgeted	1. Include 2. The Town has completed the update of the Land Development Ordinance to address natural hazards, such as floodplains and steep slopes. The Town will continue to work to update the Landscape Code to promote water conservation and more native plantings in the area. 3. N/A
Action PAR4	Coordinated Wildfire	Wildfire	OEM, Staff / SMFD/Douglas OEM	Development of a coordinated wildfire response within town limits between South Metro Fire and Douglas County OEM	1. In Progress 2. Continued work with Douglas OEM and SMFD current focus on Community Outreach and education	1. Include 2. The Town will continue to work with Douglas County Office of Emergency Management and South Metro Fire Department to develop community outreach and education on wildfire response and safety. 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
Action PAR5	Bank Stabilization	Geologic Hazards	Building Division, Engineering	Identification of bank stabilization projects in drainage areas throughout town limits (Flood mitigation). Prioritization determined based on yearly evaluations. Current stabilization projects identified include. •Lemon Gulch (4000') bank stabilization •West Stroh Gulch at Anthology (5,100') bank stabilization •Cherry Creek at Dransfeldt (2,500') bank stabilization •Jordan Tributary (3,600') bank stabilization	1. In Progress 2. West Stroh – Completed, Cherry Creek – Completed Lemon Gulch – Ongoing Jordan Tributary - Ongoing	1. Include 2. The Town has completed the identification of bank stabilization projects in drainage areas throughout the area. The Town has already completed bank stabilization at West Stroh and Cherry Creek. The Town will continue to work on Lemon Gulch and Jordan Tributary bank stabilization projects. 3. N/A
Action PAR6	Parker intends to join the Douglas County Wildfire Partnership (DCWP)	Wildfire	Parker OEM, Douglas OEM, SMFD	The Town of Park along with and various state, federal, NGO, and private stakeholders, will work with the Partnership to assess impact from wildfire; identify opportunities to maintain continuity of operations; and develop a comprehensive mitigation strategy to identify projects that will reduce wildfire risk, increase natural resource protection, encourage the incorporation of wildfire management principles into local planning, land use and building codes, and promote public awareness of wildfire risk. review and implementation.	1. In Progress 2. Continued work with Douglas OEM on Fire season, to include fire restrictions and response plans. Continued work with South Metro Fire on Community Outreach and education	1. Include 2. The Town will continue to work with Douglas County Office of Emergency Management on fire season and include fire restrictions and response plans. The Town will also work with South Metro Fire on community outreach and education on these response plans. 3. N/A

7.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Parker participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 “Selecting Appropriate Mitigation Measures for Floodprone Structures” (March 2007)
- FEMA “Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards” (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Parker would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in Town priorities.

Table 7-17 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 12 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 7-18 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.

Table 7-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure	X			X	X		X			X
Drought	X			X	X		X			X
Earthquake	X			X	X		X			X
Flood	X	X	X	X	X	X	X	X	X	X
Geologic Hazards	X		X	X	X		X	X		X
Hazardous Materials				X			X			
Pandemic				X			X			
Severe Weather	X	X		X	X		X		X	X
Wildfire	X			X	X		X			X

Local Plans and Regulations (LPR)—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

Structure and Infrastructure Project (SIP)—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

Natural Systems Protection (NSP)—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

Education and Awareness Programs (EAP)—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

Preventative Measures (PR)—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

Property Protection (PP)—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

Public Information (PI)—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

Natural Resource Protection (NR)—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

Structural Flood Control Projects (SP)—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

Emergency Services (ES)—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities

Table 7-18. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria													High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Administrative	Hazards of Concern	Timeline	Community Lifelines	Other Local Objectives	Total	
2026-Parker-01	Building Codes	1	1	1	1	1	1	0	1	1	1	1	1	11	High
2026-Parker-02	Land Development Ordinance	1	1	1	1	1	1	0	1	1	1	1	1	11	High
2026-Parker-03	Coordinated Wildfire	1	1	1	1	1	1	1	1	1	1	1	1	12	High
2026-Parker-04	Bank Stabilization	1	1	1	1	1	1	1	0	1	1	1	1	11	High
2026-Parker-05	Join the Douglas County Wildfire Action Collaborative (DCWAC)	1	1	1	1	1	1	1	1	1	1	1	1	12	High
2026-Parker-06	Undersized Culverts	1	1	1	1	1	0	0	0	1	1	1	1	9	High
2026-Parker-07	Stream Meandering Studies	1	1	1	1	1	1	0	1	1	1	1	1	11	High
2026-Parker-08	Disaster Debris Management Plan	1	1	1	1	1	1	1	1	1	1	1	0	11	High
2026-Parker-09	Dam Owner Partnership	1	1	1	1	1	1	0	1	0	1	1	0	9	High
2026-Parker-10	Critical Facility Protection	1	1	1	1	1	1	0	1	1	1	1	0	10	High
2026-Parker-11	Comprehensive Outreach Program	1	1	1	1	1	1	0	1	1	1	0	0	9	High

Note: Volume I, Section 19 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-12).

Action 2026-Parker-01. Building Codes

Lead Agency:	Building Division		
Supporting Agencies:	Town Staff and Council		
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☒ Earthquake ☒ Flood ☒ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☒ Severe Weather ☒ Wildfire		
Description of the Problem:	The Town is maintaining the old I-codes from 2021 that are outdated.		
Description of the Solution:	The Town is currently maintaining the 2021 I-codes and will work to adopt the new 2024 I-codes along with the State model codes. Code adoption is on track for June 30 th 2026 adoption.		
Estimated Cost:	Low (staff time)		
Potential Funding Sources:	General funds		
Implementation Timeline:	Short-term (1-2 years)		
Goals Met:	4, 5		
Benefits:	Updated building codes protect the structural integrity of new development and reduce the risk of structural damage from natural hazards.		
Impact on Future Development:	The updated code will protect future development by mandating they are built to withstand hazard impacts.		
Impact on Critical Facilities/Lifelines:	Shelters are critical facilities during times of displacement from hazard events. These updated codes will ensure these structures are built to withstand hazard impacts.		
Impact on Capabilities:	This action will raise the standards for building and construction within the Town.		
Mitigation Category:	☒ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)		
CRS Category:	☒ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)		
Priority:	☒ High ☐ Medium ☐ Low		
Alternatives:	No Action		Current problem exists
	Utilize 2021 I-codes		Outdated and current problem exists.
	Do not regulate codes		Current problem exists

Action 2026-Parker-02. Land Development Ordinance

Lead Agency:	Community Development		
Supporting Agencies:	Planning Commission		
Hazard(s) of Concern:	☐ Dam Failure ☒ Drought ☐ Earthquake ☐ Flood ☐ Geologic Hazards	☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☒ Wildfire	
Description of the Problem:	The Town Landscape Code does not address drought issues.		
Description of the Solution:	The Town has completed the update of the Land Development Ordinance to address natural hazards, such as floodplains and steep slopes. The Town will continue to work to update the Landscape Code to promote water conservation and more native plantings in the area, which can reduce the risk of drought and wildfire.		
Estimated Cost:	Low (staff time)		
Potential Funding Sources:	General funds, staff time		
Implementation Timeline:	Short (1-2 years)		
Goals Met:	4, 5		
Benefits:	Water conservation efforts and the planting of native plants can work to reduce the risk of drought and wildfire.		
Impact on Future Development:	This action will protect future development from drought impacts.		
Impact on Critical Facilities/Lifelines:	The inclusion of water conservation efforts in the Land Development Ordinance will benefit the water systems lifeline and work to ensure the lifeline can operate in time of drought.		
Impact on Capabilities:	This will increase the capabilities of water services the Town is able to supply during drought events through water conservation efforts.		
Mitigation Category:	☒ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP)	☒ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)	
CRS Category:	☒ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)	☒ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)	
Priority:	☒ High	☐ Medium	☐ Low
Alternatives:	No Action Utilize the old Landscape Code Remove the Landscape Code	Current problem exists Current problem exists Current problem exists or even worsens	

Action 2026-Parker-03. Coordinated Wildfire

Lead Agency:	Town Office of Emergency Management		
Supporting Agencies:	Town Staff, South Metro Fire Department, Douglas Office of Emergency Management		
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☐ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☒ Wildfire		
Description of the Problem:	The Town faces risk from wildfires but does not have a comprehensive education and outreach program to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods.		
Description of the Solution:	The Town will work with Douglas County Office of Emergency Management and South Metro Fire Department to develop community outreach and education on wildfire response and safety.		
Estimated Cost:	Low (staff time)		
Potential Funding Sources:	General funds		
Implementation Timeline:	Short-term (1-2 years)		
Goals Met:	3, 6		
Benefits:	This action will improve the public education and outreach capabilities in the Town by including discussions on disaster preparedness and hazard mitigation to residents and business owners, which will contribute to the resiliency of the Town.		
Impact on Future Development:	This action will protect future development from wildfire impacts by updating response protocol for the departments.		
Impact on Critical Facilities/Lifelines:	Businesses, which may be considered critical facilities or lifelines, would be more informed on how to prepare for emergency events and mitigate the risks of the wildfire hazard. With these businesses becoming more resilient, this action would contribute to their continuity of operations.		
Impact on Capabilities:	This will increase the capabilities of fire response and education for the fire department.		
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☒ Education and Awareness Programs (EAP)		
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☒ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)		
Priority:	☒ High ☐ Medium ☐ Low		
Alternatives:	No Action		Current problem exists
	Rely on state resources		Not always accessible by the public and not locally pertinent information.
	Rely on federal resources		Not always accessible by the public and not locally pertinent information.

Action 2026-Parker-04. Bank Stabilization

Lead Agency:	Engineering		
Supporting Agencies:	Public Works		
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☒ Flood ☒ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☐ Wildfire		
Description of the Problem:	The Town has identified bank stabilization projects that are needed in the area but not all unstable areas that were identified have been mitigated.		
Description of the Solution:	The Town has completed the identification of bank stabilization projects in drainage areas throughout the area. The Town has already completed bank stabilization at West Stroh and Cherry Creek. The Town will continue to work on Lemon Gulch and Jordan Tributary bank stabilization projects.		
Estimated Cost:	TBD		
Potential Funding Sources:	General funds		
Implementation Timeline:	Short-term (1-2 years)		
Goals Met:	2, 4		
Benefits:	Overall flooding will be reduced, which will result in less frequency of road closures and reduced damage to properties.		
Impact on Future Development:	This will protect future development that is planned around these unstable areas.		
Impact on Critical Facilities/Lifelines:	Roadways and other transportation services that are critical for residents located nearby this unstable area will be better protected from potential geological hazard events.		
Impact on Capabilities:	N/A		
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP) ☒ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)		
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI) ☒ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)		
Priority:	☒ High ☐ Medium ☐ Low		
Alternatives:	No Action		Current problem exists
	Remove Lemon Gulch and Jordan Tributary		Not an option, costly, loss of other critical services, damage to natural environment.
	Remove critical facilities near Lemon Gulch and Jordan Tributary		Loss of critical services, not an option, no area to relocate these facilities.

Action 2026-Parker-05. Join the Douglas County Wildfire Action Collaborative (DCWAC)

Lead Agency:	Parker Office of Emergency Management								
Supporting Agencies:	Douglas Office of Emergency Management, South Metro Fire Department								
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☐ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☒ Wildfire								
Description of the Problem:	The Town needs updated coordinate response for wildfire response plans and assistance to mitigate future wildfire events.								
Description of the Solution:	The Town will work with Douglas County Office of Emergency Management on fire season and include fire restrictions and response plans. The Town will also work with South Metro Fire on community outreach and education on these response plans.								
Estimated Cost:	Low (staff time)								
Potential Funding Sources:	General funds								
Implementation Timeline:	Short (1-2 years). Ongoing efforts yearly								
Goals Met:	4, 5, 6								
Benefits:	Being a partner of the Douglas County Wildfire Action Collaborative provides a collaborative environment to enhance community protections through planning and group efforts.								
Impact on Future Development:	Future development will be better protected from updated wildfire response plans.								
Impact on Critical Facilities/Lifelines:	Critical facilities will be better protected from updated wildfire response plans.								
Impact on Capabilities:	This action will strengthen wildfire response capabilities through strengthening the Town and County coordinated response.								
Mitigation Category:	☒ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)								
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)								
Priority:	☒ High ☐ Medium ☐ Low								
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Utilize previous response plans</td><td>Outdated plans</td></tr> <tr> <td>Rely on state or federal resources and response</td><td>Not always reliable and not locally pertinent information</td></tr> </tbody> </table>			No Action	Current problem exists	Utilize previous response plans	Outdated plans	Rely on state or federal resources and response	Not always reliable and not locally pertinent information
No Action	Current problem exists								
Utilize previous response plans	Outdated plans								
Rely on state or federal resources and response	Not always reliable and not locally pertinent information								

Action 2026-Parker-06. Undersized Culverts

Lead Agency:	Engineering								
Supporting Agencies:	Public Works, CDOT								
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☒ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☒ Severe Weather ☐ Wildfire								
Description of the Problem:	Undersized culverts often result in the flooding of roadways due to the inability to handle the influx of water. Debris build-up in these undersized pipes may also result in water back-flow, leading to further roadway flooding instances and impacting the integrity of the culverts. Culverts in the Town are undersized or have been damaged from instances of flooding and the debris caused by severe storms including culverts located on the following roads: • Parker Road Corridor • Riva Ridge Drive								
Description of the Solution:	The Town Engineer will complete an engineering survey of the culverts in Town that are undersized and contribute to flooding to determine the proper size necessary to provide stormwater capacity. The Town Public Works Department will complete the necessary upsizing for the culverts.								
Estimated Cost:	TBD after study is complete								
Potential Funding Sources:	FEMA HMA, CDOT, Town Budget								
Implementation Timeline:	Within 5 years								
Goals Met:	4, 7								
Benefits:	Overall flooding will be reduced, which will result in less frequency of road closures and reduced damage occurring to culverts and roadways during severe events. Businesses are likely to remain in place if they are able to remain open, or re-open sooner following a flood.								
Impact on Future Development:	Upgrading culverts will support future development by ensuring adequate stormwater management infrastructure that accommodates growth without increasing flood hazards.								
Impact on Critical Facilities/Lifelines:	Improved drainage will protect critical facilities in the corridor, such as emergency services and transportation routes, by reducing the likelihood of flood-related closures or damage.								
Impact on Capabilities:	Collaborating with CDOT enhances local and state capabilities for resilient infrastructure planning, fostering stronger interagency coordination and technical expertise.								
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☒ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)								
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☒ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)								
Priority:	☒ High ☐ Medium ☐ Low								
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Remove culverts</td><td>Loss of critical service, problem persists or even worsens.</td></tr> <tr> <td>Remove roadway</td><td>Roadway cannot be removed</td></tr> </tbody> </table>			No Action	Current problem exists	Remove culverts	Loss of critical service, problem persists or even worsens.	Remove roadway	Roadway cannot be removed
No Action	Current problem exists								
Remove culverts	Loss of critical service, problem persists or even worsens.								
Remove roadway	Roadway cannot be removed								

Action 2026-Parker-07. Stream Meandering Studies

Lead Agency:	Engineering								
Supporting Agencies:	Public Works								
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☒ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☐ Wildfire								
Description of the Problem:	There is degradation of streams causing floodplains to shift onto critical facilities. Viable solutions have not yet been determined to protect the critical facilities.								
Description of the Solution:	The Town of Parker will continue to work on updating the master plan studies on drainageways to identify potential mitigation solutions and implement capital projects to address identified issues in these studies.								
Estimated Cost:	TBD								
Potential Funding Sources:	General funds								
Implementation Timeline:	TBD								
Goals Met:	2, 4								
Benefits:	Conducting studies to identify viable mitigation solutions, then implementing those solutions, will reduce overall flooding impacts, which will result in less frequency of road closures and reduced damage to properties.								
Impact on Future Development:	Proactive stream stabilization and drainage improvements will support sustainable future development by ensuring that growth does not increase flood hazards or compromise infrastructure resilience.								
Impact on Critical Facilities/Lifelines:	Flooding hazard to facilities adjacent to floodplains is reduced								
Impact on Capabilities:	Continuing master plan updates and implementing targeted projects strengthens local planning and engineering capabilities, enabling the Town to manage drainage systems more effectively and adapt to evolving conditions.								
Mitigation Category:	☒ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)								
CRS Category:	☐ Preventative Measures (PR) ☒ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)								
Priority:	☒ High ☐ Medium ☐ Low								
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Remove streams</td><td>Loss of critical service, problem persists or even worsens.</td></tr> <tr> <td>Relocate streams</td><td>Loss of critical service, problem persists or even worsens.</td></tr> </tbody> </table>			No Action	Current problem exists	Remove streams	Loss of critical service, problem persists or even worsens.	Relocate streams	Loss of critical service, problem persists or even worsens.
No Action	Current problem exists								
Remove streams	Loss of critical service, problem persists or even worsens.								
Relocate streams	Loss of critical service, problem persists or even worsens.								

Action 2026-Parker-08. Disaster Debris Management Plan

Lead Agency:	Public Works		
Supporting Agencies:	Parker Emergency Management		
Hazard(s) of Concern:	☒ Dam Failure ☒ Drought ☒ Earthquake ☒ Flood ☒ Geologic Hazards	☐ Hazardous Materials ☐ Pandemic ☒ Severe Weather ☒ Wildfire	
Description of the Problem:	Major disaster events can result in large amounts of debris that overwhelm normal trash collection operations. Depending on the amount generated, temporary staging areas for debris collection may be needed. The Town does not have a disaster debris management plan in place. During a disaster that results in debris, a plan with outlined responsibilities is needed to adequately address post-disaster cleanup operations.		
Description of the Solution:	The Town will work to identify stakeholders and Subject Matter Experts (internal) to develop a town wide Debris Management Plan. The first draft is currently kicked off. This plan will focus on natural hazards and public facilities to assist in Disaster recovery. This plan will establish procedures and guidelines for managing disaster debris in a coordinated, environmentally responsible, and cost-effective manner. The plan will identify responsibilities for execution of the plan. The plan will align with permitted temporary collection areas.		
Estimated Cost:	Low (staff time)		
Potential Funding Sources:	General funds		
Implementation Timeline:	Short-term (6 months)		
Goals Met:	4, 5, 6		
Benefits:	The action will result in increased quicker and more efficient cleanup after disaster events.		
Impact on Future Development:	Implementing a comprehensive debris management strategy will support future development by minimizing post-disaster disruptions and maintaining infrastructure continuity for growing neighborhoods and businesses.		
Impact on Critical Facilities/Lifelines:	The plan will prioritize debris clearance for critical facilities and public infrastructure, ensuring essential services remain operational during and after natural hazard events.		
Impact on Capabilities:	Creating the Debris Management Plan enhances the Town's emergency management capabilities by establishing clear roles, procedures, and coordination among stakeholders and subject matter experts.		
Mitigation Category:	☒ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)	
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)	
Priority:	☒ High	☐ Medium	☐ Low
Alternatives:	No Action Utilize state resources for disaster debris management Utilize federal resources for disaster debris management	Current problem exists May not be locally pertinent information based on the Town's capabilities and departments May not be locally pertinent information based on the Town's capabilities and departments	

Action 2026-Parker-09. Dam Owner Partnership

Lead Agency:	Public Works		
Supporting Agencies:	County, Dam Owner		
Hazard(s) of Concern:	☒ Dam Failure ☐ Drought ☐ Earthquake ☒ Flood ☐ Geologic Hazards	☐ Hazardous Materials ☐ Pandemic ☒ Severe Weather ☐ Wildfire	
Description of the Problem:	The Town has one low hazard and one high hazard dam within its jurisdiction. These structures have the potential to impact the people, property, infrastructure, and environment nearby.		
Description of the Solution:	The Town will work with the County and owners of the dams to ensure inspections and safety procedures are up to date. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Dam Owner will pursue funding support, permit approval from the State, and implement the cost-effective measures.		
Estimated Cost:	Low		
Potential Funding Sources:	Town Budget		
Implementation Timeline:	Within 5 years		
Goals Met:	4, 6, 8		
Benefits:	This action will improve the safety and security of those who live near the dams and increase the resilience of responding agencies.		
Impact on Future Development:	Future development near the dams will be more secure as safety procedures and inspections are regularly performed on the dams.		
Impact on Critical Facilities/Lifelines:	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.		
Impact on Capabilities:	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.		
Mitigation Category:	☒ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)	
CRS Category:	☒ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)	
Priority:	☒ High	☐ Medium	☐ Low
Alternatives:	No Action	Current problem exists	
	Utilize information from DWR	Owners may not be required to submit a safety plan to the State	
	Utilize information from the National Inventory of Dams	Not all dams are listed on the inventory	

Action 2026-Parker-10. Critical Facility Protection

Lead Agency:	Critical Facility Owners and Managers								
Supporting Agencies:	Town Council								
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☒ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☐ Wildfire								
Description of the Problem:	Critical facilities need to be protected to the 500-year flood level. There are multiple critical facilities located in the flood hazard area, including a dam, polling site, daycare facilities, radio towers, bridge, commercial food distribution center, pharmacy, potable water lift stations, and potable water treatment facilities (refer to Table 7-16 for facility names).								
Description of the Solution:	The Town will notify the critical facility owners and managers of the facility's location in the flood hazard area. The Town will encourage each facility to conduct a feasibility assessment to determine what additional floodproofing measures are needed at the critical facilities to protect them to the 500-year flood level. Options include: • Elevation of facility • Floodproofing of facility • Mobile flood barriers Once the most cost-effective option is identified, the facility owner or manager will carry out the option.								
Estimated Cost:	Medium								
Potential Funding Sources:	FEMA HMA, USDA Community Facilities Grant Program, Town Budget								
Implementation Timeline:	Within 5 Years								
Goals Met:	1, 3, 5								
Benefits:	Ensures continuity of operations of several critical facilities in the Town.								
Impact on Future Development:	The risk of significant damage occurring to the structure will be reduced, which will allow critical operations to be maintained or only briefly interrupted in severe events. This provides continued support to both current and future development in the service area.								
Impact on Critical Facilities/Lifelines:	This action will protect critical facilities, maintaining the critical services that it provides.								
Impact on Capabilities:	This action improves continuity of operations during a flood event, allows for a more rapid return to pre-disaster capabilities after a flood event, and faster deployment of post disaster capabilities.								
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☒ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)								
CRS Category:	☐ Preventative Measures (PR) ☒ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)								
Priority:	☒ High ☐ Medium ☐ Low								
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Relocate facility</td><td>Relocation is expensive and results in loss or delay of critical services in the immediate area</td></tr> <tr> <td>Establish plans to enter into MOU with neighboring critical facilities to provide service during flood events</td><td>Reduction in response times and delay of critical services in the immediate area.</td></tr> </tbody> </table>			No Action	Current problem exists	Relocate facility	Relocation is expensive and results in loss or delay of critical services in the immediate area	Establish plans to enter into MOU with neighboring critical facilities to provide service during flood events	Reduction in response times and delay of critical services in the immediate area.
No Action	Current problem exists								
Relocate facility	Relocation is expensive and results in loss or delay of critical services in the immediate area								
Establish plans to enter into MOU with neighboring critical facilities to provide service during flood events	Reduction in response times and delay of critical services in the immediate area.								

Action 2026-Parker-11. Comprehensive Outreach Program

Lead Agency:	Town Manager		
Supporting Agencies:	Parker Emergency Management, Town Council, County		
Hazard(s) of Concern:	☒ Dam Failure ☒ Drought ☒ Earthquake ☒ Flood ☒ Geologic Hazards	☒ Hazardous Materials ☒ Pandemic ☒ Severe Weather ☒ Wildfire	
Description of the Problem:	The Town currently does not have a comprehensive education and outreach program which addresses all identified hazards of concern. There is a need to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods.		
Description of the Solution:	Create outreach materials, or utilize those from Douglas County, on hazard risks and methods of mitigation measures. Methods of distribution may include Town events, the Town newsletters, social media, the Town website, and having the materials on display for the public at Town libraries and offices. Outreach materials will be specified with education and information for each individual hazard of concern.		
Estimated Cost:	Low		
Potential Funding Sources:	Town Budget		
Implementation Timeline:	1 year		
Goals Met:	3, 6		
Benefits:	This action will improve the current public education and outreach program in the Town by including discussions on disaster preparedness and hazard mitigation to residents and business owners, which will contribute to the resiliency of the Town.		
Impact on Future Development:	Not applicable		
Impact on Critical Facilities/Lifelines:	Businesses, which may be considered critical facilities or lifelines, would be more informed on how to prepare for emergency events and mitigate the risks of potential hazards. With these businesses becoming more resilient, this action would contribute to their continuity of operations.		
Impact on Capabilities:	This action would build upon the County's already existing public education and outreach program and adapt it to the Town's needs.		
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☒ Education and Awareness Programs (EAP)	
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☒ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)	
Priority:	☒ High	☐ Medium	☐ Low
Alternatives:	No Action Rely on state or federal resources Use only a few methods for distribution	Current problem exists Resources may be generalized and not specific to the risks in the Town Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance	

8. DENVER WATER DISTRICT

This jurisdictional annex to the Douglas County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Denver Water District with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Denver Water District, describes who participated in the planning process, assesses Denver Water District's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

8.1 HAZARD MITIGATION PLANNING TEAM

The Denver Water District identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Denver Water District departments. The Senior Emergency Management Specialist represented the district on the Douglas County HMP Local Planning Committee and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 8-1 summarizes Denver Water District officials who participated in the development of the annex and in what capacity. Additional documentation of the Denver Water District's planning activities through Local Planning Committee meetings is included in Volume I.

Table 8-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Olivia Crimaldi, Emergency Management Specialist Address: 1600 W 12 th Ave, Denver, Colorado Phone Number: 720-436-7949 Email: Olivia.Crimaldi@denverwater.org	Name/Title: Nick Sporer, Senior Emergency Management Manager Address: 1600 W 12 th Ave, Denver, Colorado Phone Number: 720-450-6246 Email: Nick.Sporer@denverwater.org
National Flood Insurance Program Floodplain Administrator	
This jurisdiction does not participate in the National Flood Insurance Program	
Additional Contributors	
Name/Title: Madelene McDonald, Senior Scientist, Watershed Planning Method of Participation: Stakeholder and Local Planning Committee Member.	

8.2 COMMUNITY PROFILE

8.2.1 Location

Denver Water owns property and operates water collection facilities throughout the state of Colorado. However, in Douglas County, Denver Water owns critical infrastructure which is part of the Denver Water collection system. Portions of Douglas County receive Denver Water via distributor agreements. Denver Water's service area covers more than 335 square miles, including the City and County of Denver and several suburban distributors. A system of reservoirs networked by tunnels and canals provides water to more than a million people. Three major

treatment plants — Marston, Northwater and Foothills — maintain water quality under the watchful eye of the Denver Water Quality team.

8.2.2 History

Denver Water is an independent, autonomous and non-political agency of the City and County of Denver, organized and existing under the home rule charter of the City. Denver Water is the State's oldest and largest water utility, established in 1918.

8.2.3 Governing Body

Denver Water is run by a five-member Board of Water Commissioners, which is charged with ensuring a continuous supply of water to the people of Denver and Denver Water's suburban customers. The Board designates a CEO/Manager to execute its policies and orders. Reporting to the CEO/Manager are the chiefs of six divisions, including Engineering, Finance, Operations and Maintenance, Manager and Staff, Water Resource Strategy and Administrative Services, as well as general counsel and the internal auditor.

Development of this annex was carried out by the members of the local mitigation planning team, whose members are listed in Table 8-1.

8.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

Denver Water District performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day local government operations. As part of the hazard mitigation analysis, planning and /policy documents were reviewed and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. Development of an updated mitigation strategy provided an opportunity for Denver Water District to identify opportunities for integrating mitigation concepts into ongoing Denver Water District procedures.

8.3.1 Planning and Regulatory Capability and Integration

Table 8-2 summarizes the planning and regulatory tools that are available to Denver Water District.

Table 8-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
CODES, ORDINANCES, & REGULATIONS				
Building Code				
How has or will this be integrated with the HMP and how does this reduce risk?				
Zoning/Land Use Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Subdivision Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Site Plan Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Stormwater Management Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Post-Disaster Recovery/ Reconstruction Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Real Estate Disclosure Requirements	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Growth Management	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Environmental Protection Ordinance(s)	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Flood Damage Prevention Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Wellhead Protection	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Emergency Management Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Climate Change Ordinance	No	-	-	-

How has or will this be integrated with the HMP and how does this reduce risk?

Other: Design Standards	Yes	Denver Water Design Standards	State and Local	District Administration

How has or will this be integrated with the HMP and how does this reduce risk?

The water design standards provide guidance and establish requirements to follow including engineering standards (2025), CAD standards external requirements (2024), capital projects procedures manual (2025), capital projects construction standards (2021), capital projects drafting standards (2025), and geomatics technical standards (2025). These standards set expectations to ensure work is performed safely and successfully.

Other: State Engineering Regulations for State Dams	Yes	Rules and Regulations for Dam Safety and Dam Construction, May 2020	Local, State	District Administration

How has or will this be integrated with the HMP and how does this reduce risk?

The purpose of these Rules is to provide public safety by establishing reasonable standards and to create a public record for reviewing the performance of a dam. These Rules apply to any jurisdictional or non-jurisdictional dam constructed to impound water in Colorado.

Other: FERC Regulations for Hydro Dams	Yes	Safety of Water Power Projects and Project Works, December 2021	Local	District Administration

How has or will this be integrated with the HMP and how does this reduce risk?
These regulations promote the safe operation, effective maintenance, and efficient repair of licensed hydroelectric projects and project works to ensure the protection of life, health, and property in surrounding communities. In December 2021, the Commission revised its regulations to: incorporate two tiers of project safety inspections by independent consultants, codify existing guidance requiring certain licensees to develop an owner's dam safety program and a public safety plan, update existing regulations related to public safety incident reporting, and make various minor revisions.

Other: EPA AWIA Regulations for Treatment Plants	Yes	State Engineering Regulation for State Dams, January 2020	State	District Administration

How has or will this be integrated with the HMP and how does this reduce risk?
The EPA's AWIA regulations for treatment plants are designed to ensure the safety and reliability of drinking water systems. These regulations include the requirement for community water systems to conduct risk and resilience assessments, prepare emergency response plans, and certify to the EPA that these efforts have been completed. The regulations also mandate the development of risk assessments and emergency response plans for systems serving more than 3,300 people. These systems must also maintain a copy of their RRA and ERP for five years after certification to the EPA. The regulations aim to protect public health by ensuring that water treatment plants are equipped to handle potential threats and emergencies.

PLANNING DOCUMENTS

General/Comprehensive Plan	No	-	-	-

How has or will this be integrated with the HMP and how does this reduce risk?

Capital Improvement Plan	Yes	Capital Improvement Projects	Local	District Administration

How has or will this be integrated with the HMP and how does this reduce risk?

Program utilizes metrics for risk and hazards to determine which projects are funded and/or prioritized.

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Disaster Debris Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Floodplain Management or Watershed Plan	Yes	Watershed Management Planning, 2015; 2017	Local	Watershed Planning Team
How has or will this be integrated with the HMP and how does this reduce risk? Denver Water led or participated in two stakeholder-driven planning efforts: one for the Upper South Platte (2015) and one for the Fraser River Valley (2017). The planning processes and final plans are designed to provide municipal water providers, local governments and the public with information about drinking water, as well as providing a way for water providers and community members to get involved in protecting the quality of their drinking water				
Stormwater Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Open Space Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Urban Water Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Habitat Conservation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Economic Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Wildfire Protection Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Forest Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Transportation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Agriculture Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Action/Resilience/Sustainability Plan	Yes	Climate Adaptation Plan, 2008	Local	Water Resource Strategy Team
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Climate change is a threat to water utilities that is monumental, complex and growing in the scale and scope of its impacts. Denver Water created its Climate Change Adaptation Program in 2008 in response to major events like Colorado's 2002 drought and the 2002 Hayman Fire, along with a recognition that climate change impacts are here and now and will continue to increase through time. The program works to ensure Denver Water continues to deliver clean, reliable water supplies in the face of a changing and uncertain future.				
Tourism Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Business/ Downtown Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other: Integrated Resource Plan (IRP)	Yes	Water Efficiency Plan, 2017	Local	Denver Water District
How has or will this be integrated with the HMP and how does this reduce risk? Denver Water faces many challenges—population growth, a warming climate, periodic drought, competition for water resources, security threats, and a changing regulatory and political environment. Ensuring that our customers maximize water efficiency is a significant part of the long-term water supply strategy. This Water Efficiency Plan is the evolution from focusing solely on water savings to helping customers meet their water needs in the most efficient way. This plan continues to lead customers and the nation through thought leadership; proven reliability of reduced water demand; and tactics that move individual customers to water efficient use and ensure that water efficient customers remain efficient.				
Other: Integrated Resource Plan (IRP)	Yes	Denver Water Integrated Resource Plan (IRP)	Local	Denver Water District
How has or will this be integrated with the HMP and how does this reduce risk? The Denver Water Integrated Resource Plan (IRP) is an adaptive plan to meet our customers' water needs for the next 50 years. Through a cross-divisional, cutting-edge process, we continue in our legacy to proactively plan for the future. The IRP provides the necessary strategic framework to address important long-term questions. The release of the IRP is currently delayed due to complications with Gross Dam. An official date of adoption has not been established.				
RESPONSE/RECOVERY PLANNING				
Emergency Operations Plan	Yes	Water Shortage Response Implementation Plan, 2020	Local	Distribution Team
How has or will this be integrated with the HMP and how does this reduce risk? Provides the framework and direction for the response to potential or occurring incidents affecting Denver Water's water distribution system.				
Continuity of Operations Plan	Yes	Continuity of Operations Plan, 2025	Local	Emergency Management Team
How has or will this be integrated with the HMP and how does this reduce risk? Identifies essential functions, interdependencies, and plans for relocation and recovery.				
Substantial Damage Response Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Threat and Hazard Identification and Risk Assessment	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Post-Disaster Recovery Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Public Health Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

8.3.2 Development and Permitting Capability

Table 8-3 summarizes the capabilities of Denver Water District to oversee and track development.

Table 8-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits?	No	-
- If you issue development permits, what department is responsible? - If you do not issue development permits, what is your process for tracking new development?	No	-
Are permits tracked by hazard area? (For example, floodplain development permits.)	No	-
Do you have a buildable land inventory? If you have a buildable land inventory, please describe	No	-
Describe the level of buildout in your jurisdiction.	N/A	-

8.3.3 Administrative and Technical Capability

Table 8-4 summarizes potential staff and personnel resources available to Denver Water District and their current responsibilities that contribute to hazard mitigation.

Table 8-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
ADMINISTRATIVE CAPABILITY		
Planning Board	No	-
Zoning Board of Adjustment	No	-
Planning Department	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Public Works/Highway Department	No	-
Construction/Building/Code Enforcement Department	No	-
Emergency Management/Public Safety Department	Yes	Denver Water has an Emergency Management team and other officials to assist with the various phases of the emergency management cycle.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	Maintenance is regularly performed on equipment, infrastructure, and facilities to ensure everything is in working order and meeting requirement standards.
Mutual aid agreements	Yes	Intergovernmental Agreement for Use of Water for Wildland Fire Suppression (est. 2024) allows Douglas County to use Denver Water property and water for wildland fire suppression.
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	-
Other	No	-
TECHNICAL/STAFFING CAPABILITY		
Planners or engineers with knowledge of land development and land management practices	No	-
Engineers or professionals trained in building or infrastructure construction practices	Yes	Engineering
Planners or engineers with an understanding of natural hazards	Yes	Planning
Staff with expertise or training in benefit/cost analysis	Yes	Finance
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazus applications	Yes	GIS

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Staff that work with socially vulnerable populations or underserved communities	No	-
Environmental scientists familiar with natural hazards	Yes	Planning
Surveyors	Yes	Engineering
Emergency manager	Yes	Emergency Management
Grant writers	No	-
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	Yes	Watershed Management Planning, Water Resource Planning

8.3.4 Fiscal Capability

Table 8-5 summarizes financial resources available to Denver Water District.

Table 8-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	No
Capital improvement project funding	Yes – Denver Water has a comprehensive capital improvement plan in place
Authority to levy taxes for specific purposes	Yes – Water rates only; Denver Water is not responsible for stormwater
User fees for water, sewer, gas, or electric service	Yes
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	No
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

8.3.5 Education and Outreach Capability

Table 8-6Error! Reference source not found. summarizes the education and outreach resources available to Denver Water District.

Table 8-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Media Relations Department
Personnel skilled or trained in website development	Yes	Media Relations Department
Hazard mitigation information available on your website	Yes	For internal planning usage only
Social media for hazard mitigation education and outreach	No	-
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	Yes	Internal System only
Natural disaster/safety programs in place for schools	No	-
Organizations that conduct outreach to socially vulnerable populations and underserved populations	No	-
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	Denver Water offers a variety of informational services including sponsorship program, youth education, educational articles, tours, informational booths in the community, availability to send speakers, and availability for special events.

8.3.6 Community Classifications

Table 8-7 summarizes classifications for community programs available to Denver Water District.

Table 8-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable

8.4 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). According to the FEMA Community Status Book Report, Denver Water District does not participate in the NFIP.

8.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Denver Water District does not issue permits. New infrastructure or building permitting or construction is performed by Douglas County and the towns and cities within it.

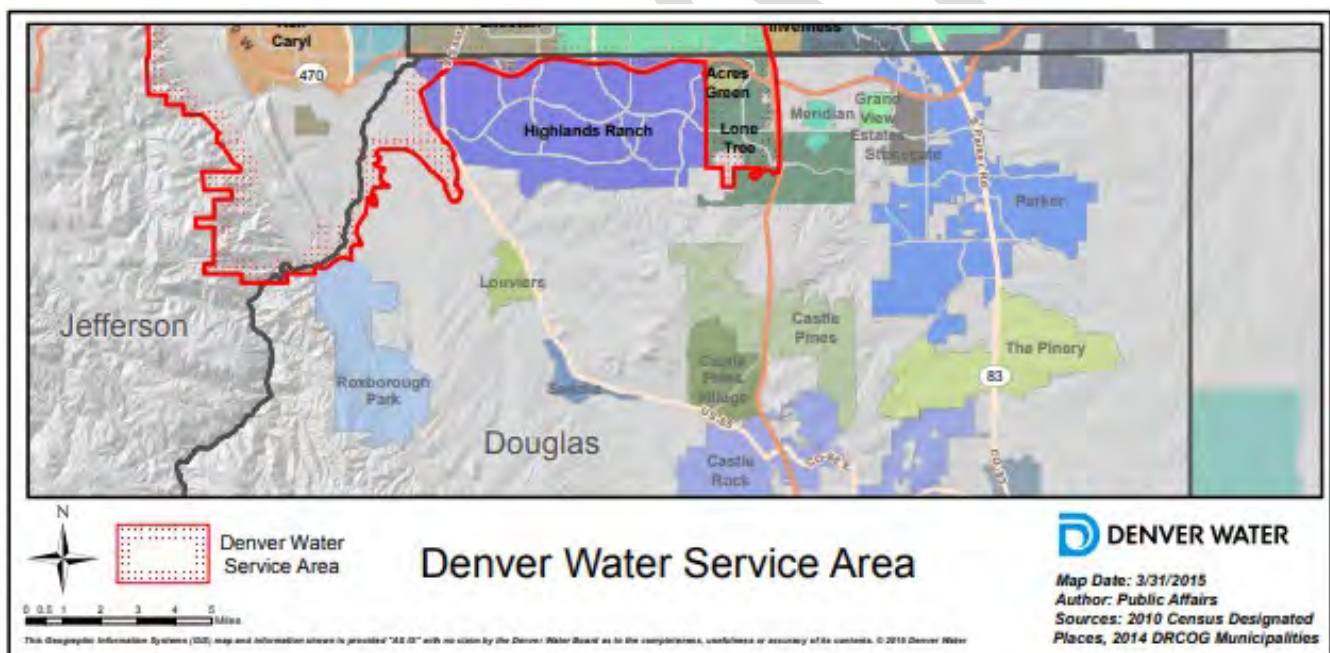
8.6 JURISDICTIONAL RISK ASSESSMENT

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Denver Water District's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

8.6.1 Hazard Area

The hazard profiles in Chapters 6 to 14 in Volume I provide detailed information regarding vulnerability to the identified hazards. The service area for the Denver Water District primarily covers the City of Lone Tree and some areas of Unincorporated Douglas County, as shown in Figure 8-1, which is filtered to only show the service area in Douglas County. Refer to Chapters 2 and 6 in Volume II to view the hazard area extent and location maps for the City of Lone Tree and Unincorporated Douglas County.

Figure 8-1. Denver Water District Service Area



Source: (Denver Water District 2015)

8.6.2 Hazard Event History

The history of natural and non-natural hazard events in Denver Water District is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its jurisdictions. Table 8-14 provides details on loss and damage in Denver Water District during hazard events since the last hazard mitigation plan update.

Table 8-8. Hazard Event History in Denver Water District

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses
September 6, 2019	Severe Weather	N/A	Severe thunderstorms produced a combination of large hail (1.25 inches) and heavy rain. A brief tornado touched down in an open field near Highlands Ranch. A blast of lightning triggered a house fire in Douglas County, causing extensive damage.	No Denver Water property or infrastructure damage.
October 29-30, 2019	Severe Weather	N/A	A winter storm brought record breaking temperatures and up to a foot of snow. Numerous schools were closed due to heavy snow and hazardous road conditions. Storm totals included: 10 inches near Parker; 7.5 inches near Castle Pine.	No Denver Water property or infrastructure damage.
January 20, 2020 - May 11, 2023	Pandemic EM-3436-CO, DR-4498-CO	Yes	During the COVID-19 pandemic disaster declaration, there were a reported 102,146 cases of COVID-19 and 527 COVID-19 related deaths in Douglas County.	Loss of revenue, water service remained on for customers who did not pay water utility bills.
August 14, 2020 - November 30, 2020	Wildfire	Grand County	East Troublesome Fire burned 193,812 acres, killed two people, and destroyed more than 400 homes before it was contained.	No Denver Water property or infrastructure damage. Closure of the Williams Fork Recreation area. 14,833 acres of forest burned in the Arapaho National Forest.
March 13-14, 2021	Severe Weather	N/A	Strong winds compounded with heavy snowfall made the roadways impassable in the afternoon and evening. Peak wind gusts to 48 mph produced extensive drifting snow. Drifts ranged from 3 to 6 feet deep. The heavy wet snow caused extensive tree damage and produced power outages.	No Denver Water property or infrastructure damage. Road closures forced some Denver Water staff to come in ahead of scheduled work, and others to remain overnight at critical facilities.

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses
November - December 2021	Drought	N/A	Portions of the County were in a severe to extreme drought classification (D2/D3) through the months of November and December.	No Denver Water property or infrastructure damage.
February 23, 2023	Severe Weather	N/A	Bands of moderate to heavy snow showers coupled with strong winds produced poor visibilities and hazardous driving conditions. During the morning hours on the 23rd, wind chill temperatures ranged from -25°F to -30°F.	No Denver Water property or infrastructure damage.
May 12-13, 2023	Flood	N/A	Swollen creeks and streams produced flooding and flash flooding. Numerous hiking trails in Castlewood Canyon State Park were closed as they were underwater and impassable. Three men in the foothills of Douglas County had to be rescued when their vehicle got stuck in snow along Rampart Range Road in Pike National Forest.	No Denver Water property or infrastructure damage.
June 22, 2023	Severe Weather DR-4731-CO	Yes	An EF1 tornado touched down just south of CO-470 in the city of Highlands Ranch. Preliminarily the tornado was on the ground for 6.3 miles. No injuries were reported but over 100 trees were downed. Some window/shingle damage has been noted to both houses and commercial properties. Up to 2.5 inches hail occurred.	No Denver Water property or infrastructure damage.
January 13-16, 2024	Severe Weather	N/A	A long duration snowfall event occurred resulting in several feet of snow. Total snowfall accumulations across the urban corridor and northeast were light, with storm totals generally less than 6 inches, but the icy conditions did cause some travel impacts. Wind chill temperature dropped to -34°F; the record low of -19°F was tied on the morning of the 16th. Some of the plains locations dropped down to -30°F.	No Denver Water property or infrastructure damage.
March 13, 2024 - March 15, 2024	Severe Weather	Denver Metro Area	Powerful winter storm impacted Denver and Colorado Front Range.	No Denver Water property or infrastructure damage.

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses
				Power outages occurred during the incident, causing some critical facilities to utilize backup generator power. Some critical systems did not operate until normal power transmission methods resumed. Denver Water staff remained overnight at critical facilities.
June 9, 2024	Severe Weather	N/A	Slow moving thunderstorms produced hail (1.25 inches) and heavy rainfall. There were reports of cars being swamped due to rising waters.	No Denver Water property or infrastructure damage.
July 30 – August 7, 2024	Wildfire	N/A	A fire was contained August 7th after reaching about 579 acres. No structures were lost in the fire. Several firefighters were treated for heat exhaustion. Mandatory evacuations were ordered for the Deer Creek Mesa area and several subdivisions in the area of Ken Caryl.	No Denver Water property or infrastructure damage.

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

8.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Denver Water District.

Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions. Denver Water District reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Denver Water District agreed with the preliminary hazard risk ranking identified in Table 8-15.

Table 8-15 shows Denver Water District's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 8-9. Hazard Ranking

Hazard	Rank
Dam Failure	Medium
Drought	Medium
Earthquake	Medium
Flood	Medium
Geologic Hazards	Medium
Hazardous Materials	High
Pandemic	Low
Severe Weather	Low
Wildfire	High

Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction

Critical Facilities

Table 8-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 8-10. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Event	0.2% Event		
Denver Water - Strontia Springs Reservoir Headquarters	Tier II Facility	Yes	Yes	2026-DenverWater-10	No

Source: Douglas County; CDOT; CDPHE; ESRI; HIFLD; US Energy Information Administration; FEMA

8.6.4 Identified Issues

After review of Denver Water District's hazard event history, hazard rankings, hazard location, and current capabilities, Denver Water District identified the following vulnerabilities within the community:

- Wildfire risk is higher in and around forested area of Douglas County.
- Denver Water is a complex water system that falls under several federal/state regulating agencies all with differing requirements, training, qualifications, and exercise requirements etc. Denver Water has eight divisions, all focusing on their specified requirements. There is a need for partnership between the district and local responders.
- Denver Water is a complex water system that falls under several federal/state regulating agencies all with differing requirements, training, qualifications, and exercise requirements etc. Denver Water has eight divisions, all focusing on their specified requirements. There is a need for cross pollination of the district's crisis management outreach with Douglas County public outreach.
- The Denver Water District currently does not have a wildfire resilience assessment to assess wildfire risk and consider strategies to mitigate risks.

- Denver Water maintains backup power generation capabilities at all its dam and treatment plant facilities. Denver Water has one mobile generator that may be transported to additional locations in the event of a loss in power.
- Denver Water has identified the following critical facilities as important to protect in the event of a disaster: Strontia Springs Dam, Kassler Pump Station, Foothills Treatment Plant, and Cheesman Dam.
- Denver Water's primary and backup Emergency Operations Center are located within a quarter mile of each other.
- FERC requested Denver Water increase public awareness of the risks of Strontia Springs Dam to recreators in Waterton Canyon. Denver Water displayed signage throughout the canyon to increase public awareness of downstream risks.
- Denver Water has trouble with ensuring reliable communication with employees in remote locations.
- Critical facilities need to be protected to the 500-year flood level. The Strontia Springs Reservoir Headquarters facility is located in the flood hazard area.
- The Strontia Springs Reservoir is a High Hazard Dam that is located on the South Platte River. The dam is owned by the Denver Water District. Failure of the dam could result in inundation of residential properties along Waterton Canyon Road, woodland and forested areas, and recreational areas in Unincorporated Douglas County. Although the dam was last inspected in 2024 and was noted to be in satisfactory conditions, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions. Denver Water is currently rebuilding the hydroelectric facility located at Strontia Springs Reservoir in Waterton Canyon, with the project projected to be completed in early Summer of 2026.
- The Cheesman Dam is a High Hazard Dam that is located on the South Platte River. The dam is owned by the Denver Water District. Failure of the dam could result in inundation of structures and properties along Wigwam and Wigwam Creek Roads, woodland and forested areas, and recreational areas in Unincorporated Douglas County in Unincorporated Douglas County. Although the dam was last inspected in 2025 and was noted to be in satisfactory conditions, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.

8.7 MITIGATION STRATEGY AND PRIORITIZATION

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

8.7.1 Past Mitigation Action Status

Table 8-17 indicates progress on the Denver Water District's mitigation strategy identified in the 2021 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

8.7.2 Additional Mitigation Efforts

In addition to the mitigation actions completed in Table 8-17, Denver Water District identified the following mitigation efforts completed since the last HMP:

- Development of a watershed sediment management plan (2021)
- Joined the Douglas County Wildfire Action Collaborative (DCWAC)
- Development of a Post-Fire Recovery Plan.

Since the adoption of the County's first HMP, Denver Water District has made significant mitigation progress in the following areas:

- Plan development
- Agency Coordination

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Table 8-11. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
Action DW-1	Watershed Sediment Protection Plan		Denver Water	Denver Water developed a watershed sediment management plan in 2021 to explore partnerships and identify projects that reduce sediment transport to Strontia Springs Reservoir. The focus area for projects in Douglas County will be the watersheds draining to the South Platte upstream of Strontia Springs Reservoir and below Cheesman Reservoir.	1. Completed 2. N/A	1. Discontinue 2. N/A 3. 1. Completed
Action DW-2	Denver Water intends to join the Douglas County Wildfire Action Collaborative (DCWAC)		Denver Water	Denver Water and various state, federal, NGO, and private stakeholders, and will work with the Partnership to assess impact from wildfire; identify opportunities to maintain continuity of operations; and develop a comprehensive mitigation strategy to identify projects that will reduce wildfire risk, increase natural resource protection, encourage the incorporation of wildfire management principles into local planning, land use and building codes, and promote public awareness of wildfire risk.	1. 1. Completed 2. N/A	1. Discontinue 2. N/A 3. 1. Completed
Action DW-3	Proactive Forest Management (From Forests to		Denver Water, U.S. Forest	Continue proactive forest management with the United States Forest Service (USFS),	1. In Progress	1. Include 2. Continue proactive forest management with the United States

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
	Faucets Program and DW Forest and Land Management Services Agreement)		Service, Colorado State Forest Service, Colorado Forest Restoration Institute, and the Natural Resources Conservation Service.	Colorado State Forest Service (CSFS), Colorado Forest Restoration Institute and the Natural Resources Conservation Service (NRCS). This project entails forest hazardous fuels reduction on the Pike San National Forest, White River National Forest, Arapaho National Forest, non-federal properties, and Denver Water property to advance wildfire risk reduction (Watershed Protection Program: From Forests to Faucets).	2. From Forests to Faucets celebrated 15 years of partnership in 2025.	Forest Service (USFS), Colorado State Forest Service (CSFS), Colorado Forest Restoration Institute and the Natural Resources Conservation Service (NRCS). This project entails forest hazardous fuels reduction on the Pike San National Forest, White River National Forest, Arapaho National Forest, non-federal properties, and Denver Water property to advance wildfire risk reduction (Watershed Protection Program: From Forests to Faucets). 3. N/A
Action DW-4	Training & Exercise Program		Denver Water	Denver Water is a complex water system that falls under several federal/state regulating agencies all with differing requirements, training, qualifications, and exercise requirements etc. Denver Water has eight divisions all focusing on their specified requirements. Our Training and exercise program interfaces with local emergency management, LEPCs, and regional planning efforts to ensure that training and exercise efforts by/between the water agency is occurring with local first responders.	1. In Progress 2. Continues to exercise emergency plans in accordance with Federal regulations, as well as additional exercises to meet rising challenges (example: cybersecurity, continuity).	1. Include 2. Continues to exercise emergency plans in accordance with Federal regulations, as well as additional exercises to meet rising challenges (example: cybersecurity, continuity). 3. N/A
Action DW-5	Public Education and Outreach		Denver Water	Denver Water is a complex water system that falls under several federal/state regulating agencies	1. In Progress	1. Include 2. The Denver Water District will continue to provide education and

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				all with differing requirements, training, qualifications, and exercise requirements etc. Denver Water has eight divisions all focusing on their specified requirements. Our External Affairs division is responsible for interfacing with the local entities for media, public affairs, stakeholder relations and crisis management coordination.	2. Continues providing education and outreach in the Douglas County area.	outreach with the local entities for media, public affairs, stakeholder relations and crisis management coordination in the Douglas County area. 3. N/A
Action DW-6	Post Fire Plan		Denver Water	Denver Water would like to increase preparedness for the post-fire recovery process in the watershed. This plan includes recommendations based on the watershed area for infrastructure and water supply protection in Denver Water's watersheds.	1. Complete 2. N/A	1. Discontinue 2. N/A 3. Completed action.
Action DW-7	Foothills Wildfire Resilience Assessment		Denver Water	Denver Water is completing facility specific wildfire resilience assessments for several operationally critical facilities. In 2025, Denver Water will complete a facility specific assessment at Foothills Water Treatment Plant, including evaluating risk in the built and natural environment, considering active fire continuity of operations, and assessing post-fire risks.	1. In Progress 2. Assessment Report was completed in 2025, implementation of recommendations to begin in 2026	1. Include 2. Denver Water is completing facility specific wildfire resilience assessments for several operationally critical facilities. In 2025, Denver Water will complete a facility specific assessment at Foothills Water Treatment Plant, including evaluating risk in the built and natural environment, considering active fire continuity of operations, and assessing post-fire risks.

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						3. N/A

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8.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Denver Water District participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 “Selecting Appropriate Mitigation Measures for Floodprone Structures” (March 2007)
- FEMA “Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards” (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Denver Water District would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in Denver Water District priorities.

Table 8-18 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 12 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 8-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.

Table 8-12. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure	X	X		X			X			X
Drought	X	X		X			X			X
Earthquake	X	X		X						X
Flood	X	X		X			X			X
Geologic Hazards	X	X		X						X
Hazardous Materials	X	X		X						X
Pandemic	X	X		X						X
Severe Weather	X	X		X			X			X
Wildfire	X	X	X	X	X		X	X		X

Local Plans and Regulations (LPR)—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

Structure and Infrastructure Project (SIP)—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

Natural Systems Protection (NSP)—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

Education and Awareness Programs (EAP)—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

Preventative Measures (PR)—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

Property Protection (PP)—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

Public Information (PI)—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

Natural Resource Protection (NR)—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

Structural Flood Control Projects (SP)—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

Emergency Services (ES)—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities

Table 8-13. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria													High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Administrative	Hazards of Concern	Timeline	Community Lifelines	Other Local Objectives	Total	
2026-Denver Water-01	Proactive Forest Management	1	1	1	1	1	1	1	1	1	1	1	0	11	High
2026-Denver Water-02	Training and Exercise Program	1	1	1	1	1	1	0	1	1	1	1	1	11	High
2026-Denver Water-03	Public Education and Outreach	1	1	1	1	1	1	0	1	1	1	1	1	11	High
2026-Denver Water-04	Foothills Wildfire Resilience Assessment	1	1	1	1	1	1	1	1	1	1	1	0	11	High
2026-Denver Water-05	Mobile Backup Generators	1	1	1	1	1	0	0	1	1	1	1	1	10	High
2026-Denver Water-06	Mitigation of Critical Facilities	1	1	1	1	1	1	1	0	1	1	1	0	10	High
2026-Denver Water-07	Establish EOC's	1	0	1	1	1	1	0	1	1	1	1	1	10	High
2026-Denver Water-08	Increase Public Awareness: Strontia Springs Dam	1	1	1	1	1	1	0	1	1	1	1	0	10	High
2026-Denver Water-09	Critical Facility Protection	1	1	1	1	1	1	0	1	1	1	1	0	10	High
2026-Denver Water-10	Strontia Springs Reservoir Rehab	1	1	1	1	0	0	1	1	0	1	1	0	8	Medium
2026-Denver Water-11	Cheesman Dam Rehab	1	1	1	1	0	0	1	1	0	1	1	0	8	Medium

Note: Volume I, Section 19 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-12).

Action 2026-Denver Water-01. Proactive Forest Management

Lead Agency:	Denver Water District Operations and Maintenance								
Supporting Agencies:	U.S. Forest Service, Colorado State Forest Service, Colorado Forest Restoration Institute, and the Natural Resources								
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☐ Flood ☐ Geologic Hazards	☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☒ Wildfire							
Description of the Problem:	Wildfire risk is higher in and around forested areas of Douglas County.								
Description of the Solution:	From Forests to Faucets celebrated 15 years of partnership in 2025. The Denver Water District will continue proactive forest management with the United States Forest Service (USFS), Colorado State Forest Service (CSFS), Colorado Forest Restoration Institute and the Natural Resources Conservation Service (NRCS). This project entails forest hazardous fuels reduction on the Pike San National Forest, White River National Forest, Arapaho National Forest, non-federal properties, and Denver Water property to advance wildfire risk reduction (Watershed Protection Program: From Forests to Faucets).								
Estimated Cost:	Low (staff time)								
Potential Funding Sources:	Denver Water District funds								
Implementation Timeline:	Ongoing, no set end date.								
Goals Met:	4, 5, 6								
Benefits:	Partnering with outside agencies to proactively implement forest management practices provides access to additional capabilities to reduce the risk to wildfire.								
Impact on Future Development:	This action will mitigate future wildfire risk to development planned nearby forested areas of the County by implementing wildfire mitigation techniques and promoting partnerships.								
Impact on Critical Facilities/Lifelines:	Critical facilities and lifelines, such as evacuation routes, are more accessible and safer to use through the mitigation of wildfire risks and increased partnerships between agencies who respond to wildfire events.								
Impact on Capabilities:	This action will increase the partnership capabilities for agencies who are responsible for wildfire risk management and response. It will increase communication between these partners for the County and Water Districts.								
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP)	☒ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)							
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)	☒ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)							
Priority:	☒ High	☐ Medium	☐ Low						
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Rely on federal assistance</td><td>Not always reliable, local needs are sometimes still unmet.</td></tr> <tr> <td>Rely on state assistance</td><td>Not always reliable, local needs are sometimes still unmet.</td></tr> </tbody> </table>	No Action	Current problem exists	Rely on federal assistance	Not always reliable, local needs are sometimes still unmet.	Rely on state assistance	Not always reliable, local needs are sometimes still unmet.		
No Action	Current problem exists								
Rely on federal assistance	Not always reliable, local needs are sometimes still unmet.								
Rely on state assistance	Not always reliable, local needs are sometimes still unmet.								

Action 2026-Denver Water-02. Training and Exercise Program

Lead Agency:	Denver Water Administrative Services								
Supporting Agencies:	U.S. Forest Service, Colorado State Forest Service, and the Natural Resources Conservation Service.								
Hazard(s) of Concern:	☒ Dam Failure ☒ Drought ☒ Earthquake ☒ Flood ☒ Geologic Hazards	☒ Hazardous Materials ☒ Pandemic ☒ Severe Weather ☒ Wildfire							
Description of the Problem:	Denver Water is a complex water system that falls under several federal/state regulating agencies all with differing requirements, training, qualifications, and exercise requirements etc. Denver Water has eight divisions, all focusing on their specified requirements. There is a need for partnership between the district and local responders.								
Description of the Solution:	Denver Water training and exercise program interfaces with local emergency management, LEPCs, and regional planning efforts to ensure that training and exercise efforts by/between the water agency is occurring with local first responders. The district will exercise emergency plans in accordance with Federal regulations, as well as additional exercises to meet rising challenges (example: cybersecurity, continuity).								
Estimated Cost:	High (approximately \$2 million)								
Potential Funding Sources:	Denver Water, USFS, CSFS, and NRCS								
Implementation Timeline:	Ongoing, no set end date.								
Goals Met:	5, 6								
Benefits:	Partnering with outside agencies to ensure first responders are informed, aware, and trained on how to respond to an event at one of the Denver Water facilities ensures the facilities can rapidly return to normalcy and continue providing services to consumers.								
Impact on Future Development:	N/A								
Impact on Critical Facilities/Lifelines:	The water district provides critical water access to residents, and this action will ensure the continuity of operations during emergency events.								
Impact on Capabilities:	This action will ensure the continuity of operations for the water district and increase local response capabilities by ensuring consistency and partnership between both agencies.								
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☒ Education and Awareness Programs (EAP)							
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)							
Priority:	☒ High	☐ Medium	☐ Low						
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Adhere to only federal requirements</td><td>The district will not be adhering to all of the requirements by opting out of state regulations.</td></tr> <tr> <td>Adhere to only state requirements</td><td>The district will not be adhering to all of the requirements by opting out of federal regulations.</td></tr> </tbody> </table>	No Action	Current problem exists	Adhere to only federal requirements	The district will not be adhering to all of the requirements by opting out of state regulations.	Adhere to only state requirements	The district will not be adhering to all of the requirements by opting out of federal regulations.		
No Action	Current problem exists								
Adhere to only federal requirements	The district will not be adhering to all of the requirements by opting out of state regulations.								
Adhere to only state requirements	The district will not be adhering to all of the requirements by opting out of federal regulations.								

Action 2026-Denver Water-03. Public Education and Outreach

Lead Agency:	Denver Water District External Affairs								
Supporting Agencies:	Denver Water Administration								
Hazard(s) of Concern:	☒ Dam Failure ☒ Drought ☐ Earthquake ☒ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☒ Severe Weather ☒ Wildfire								
Description of the Problem:	Denver Water is a complex water system that falls under several federal/state regulating agencies all with differing requirements, training, qualifications, and exercise requirements etc. Denver Water has eight divisions, all focusing on their specified requirements. There is a need for cross pollination of the district's crisis management outreach with Douglas County public outreach.								
Description of the Solution:	Denver Water District External Affairs division is responsible for interfacing with the local entities for media, public affairs, stakeholder relations and crisis management coordination. The Denver Water District will continue to provide education and outreach with the local entities for media, public affairs, stakeholder relations and crisis management coordination in the Douglas County area.								
Estimated Cost:	Medium (approximately \$40,000)								
Potential Funding Sources:	Denver Water District funds								
Implementation Timeline:	Ongoing, no set end date.								
Goals Met:	3, 6								
Benefits:	This action will improve the current public education and outreach program by providing materials and training sessions for the local entities for media, public affairs, stakeholder relations and crisis management coordination in the Douglas County area.								
Impact on Future Development:	N/A								
Impact on Critical Facilities/Lifelines:	The district is a critical facility which provides water services to residents of the County. This action will promote public education and awareness on crisis management information for this facility and lifeline.								
Impact on Capabilities:	This action will increase the public education and awareness within the County limits.								
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☒ Education and Awareness Programs (EAP)								
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☒ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)								
Priority:	☒ High	☐ Medium	☐ Low						
Alternatives:	<table border="1" style="width: 100%;"> <thead> <tr> <th style="width: 50%;">No Action</th><th style="width: 50%;">Current problem exists</th></tr> </thead> <tbody> <tr> <td>Rely on state information and outreach</td><td>Not always easily accessible and available to local residents.</td></tr> <tr> <td>Rely on federal information and outreach</td><td>Not always easily accessible and available to local residents. Not always localized information.</td></tr> </tbody> </table>			No Action	Current problem exists	Rely on state information and outreach	Not always easily accessible and available to local residents.	Rely on federal information and outreach	Not always easily accessible and available to local residents. Not always localized information.
No Action	Current problem exists								
Rely on state information and outreach	Not always easily accessible and available to local residents.								
Rely on federal information and outreach	Not always easily accessible and available to local residents. Not always localized information.								

Action 2026-Denver Water-04. Foothills Wildfire Resilience Assessment

Lead Agency:	Denver Water Engineering		
Supporting Agencies:	Denver Water Administration, Denver Water Operations and Maintenance		
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☐ Flood ☐ Geologic Hazards		☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☒ Wildfire
Description of the Problem:	The Denver Water District currently does not have a wildfire resilience assessment to assess wildfire risk and consider strategies to mitigate risks.		
Description of the Solution:	Denver Water District is completing a facility specific wildfire resilience assessment for several operationally critical facilities. At the end of 2025, Denver Water will complete a facility specific assessment at Foothills Water Treatment Plant, including evaluating risk in the built and natural environment, considering active fire continuity of operations, and assessing post-fire risks.		
Estimated Cost:	Low		
Potential Funding Sources:	Denver Water District funds		
Implementation Timeline:	Short (1-2 years)		
Goals Met:	2, 4		
Benefits:	Evaluating risk at the Foothills Water Treatment Plant can assist in identifying various strategies to mitigate the wildfire risk. Implementing the identified measures will ensure the facility has a lower risk of being damaged and assists in ensuring consumers have continual service.		
Impact on Future Development:	N/A		
Impact on Critical Facilities/Lifelines:	This action ensures the continuity of operations for this critical facility during wildfire events to be able to provide water resources to residents.		
Impact on Capabilities:	This action ensures the continuity of operations for this critical facility during wildfire events to be able to provide water resources to residents.		
Mitigation Category:	☒ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP)		☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)
CRS Category:	☒ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)		☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)
Priority:	☒ High	☐ Medium	☐ Low
Alternatives:	No Action		Current problem exists
	Rely on state assessments		Does not specific risks specifically to the district.
	Rely on federal assessments		Does not specific risks specifically to the district.

Action 2026-Denver Water-05. Mobile Backup Generators

Lead Agency:	Denver Water Operations and Maintenance		
Supporting Agencies:	Denver Water Administration		
Hazard(s) of Concern:	☒ Dam Failure ☒ Drought ☒ Earthquake ☒ Flood ☒ Geologic Hazards	☐ Hazardous Materials ☐ Pandemic ☒ Severe Weather ☒ Wildfire	
Description of the Problem:	Denver Water maintains backup power generation capabilities at all of its dam and treatment plant facilities. Denver Water has one mobile generator that may be transported to additional locations in the event of a loss in power.		
Description of the Solution:	The Denver Water District will explore funding to acquire additional mobile backup generators to power critical facilities in the event of a power outage.		
Estimated Cost:	TBD		
Potential Funding Sources:	Denver Water District funds, TBD		
Implementation Timeline:	Short (1-2 years)		
Goals Met:	5, 7		
Benefits:	This action protects public health and safety and ensures continued operation of critical facilities and their essential functions during a power outage.		
Impact on Future Development:	Enhanced backup power capabilities strengthen infrastructure resilience, supporting sustainable growth and future development across the Denver Water District.		
Impact on Critical Facilities/Lifelines:	Additional generators provide reliable emergency power for dams and treatment plants, safeguarding critical water facilities against operational disruptions.		
Impact on Capabilities:	Expanding mobile generator resources improves Denver Water's emergency response capabilities, enabling rapid deployment to affected sites during outages.		
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☒ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)	
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)	
Priority:	☒ High	☐ Medium	☐ Low
Alternatives:	No Action	Current problem exists	
	Utilize existing backup generator	Helps to mitigate the power outage but can only be used at one site at a time.	
	Solar panels	Not as reliable and may not have full capabilities depending on the hazard event which causes the power outage.	

Action 2026-Denver Water-06. Mitigation of Critical Facilities

Lead Agency:	Denver Water Operations and Maintenance		
Supporting Agencies:	Denver Water Administration		
Hazard(s) of Concern:	☒ Dam Failure ☒ Drought ☒ Earthquake ☒ Flood ☒ Geologic Hazards	☒ Hazardous Materials ☐ Pandemic ☒ Severe Weather ☒ Wildfire	
Description of the Problem:	Denver Water has identified the following critical facilities as important to protect in the event of a disaster: Strontia Springs Dam, Kassler Pump Station, Foothills Treatment Plant, and Cheesman Dam.		
Description of the Solution:	The Denver Water District will conduct a feasibility assessment on each of the critical facilities (Strontia Springs Dam, Kassler Pump Station, Foothills Treatment Plant, and Cheesman Dam) to determine the most feasible action to protect these critical facilities from hazard events. Once the most feasible action is identified, the District will seek funding to implement each action.		
Estimated Cost:	TBD		
Potential Funding Sources:	Denver Water District funds, TBD		
Implementation Timeline:	Short (1-2 years); Ongoing		
Goals Met:	4, 7, 8		
Benefits:	Evaluating risk at critical facilities can assist in identifying various strategies to mitigate hazard risk. Implementing the identified measures will ensure the facility has a lower risk of being damaged and assists in ensuring consumers have continual service.		
Impact on Future Development:	Strengthening the resilience of essential water infrastructure supports sustainable growth and future development by minimizing service disruptions during hazard events.		
Impact on Critical Facilities/Lifelines:	Feasibility assessments will identify the most effective strategies to safeguard Strontia Springs Dam, Kassler Pump Station, Foothills Treatment Plant, and Cheesman Dam, ensuring continuity of operations during emergencies.		
Impact on Capabilities:	This project enhances Denver Water's ability to plan and implement targeted hazard mitigation actions, improving overall emergency preparedness and operational resilience.		
Mitigation Category:	☒ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)	
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)	
Priority:	☒ High	☐ Medium	☐ Low
Alternatives:	No Action Implement the most cost-effective solution on all critical facilities Remove the critical facilities that are vulnerable	Current problem exists Not all critical facilities will require the same mitigation action to protect against hazard events. May not be reliable. Costly, loss of critical service, not an option.	

Action 2026-Denver Water-07. Establish EOC's

Lead Agency:	Denver Water Administrative Services								
Supporting Agencies:	Denver Water Administration								
Hazard(s) of Concern:	☒ Dam Failure ☒ Drought ☒ Earthquake ☒ Flood ☒ Geologic Hazards	☒ Hazardous Materials ☒ Pandemic ☒ Severe Weather ☒ Wildfire							
Description of the Problem:	Denver Water's primary and backup Emergency Operations Center are located within a quarter mile of each other.								
Description of the Solution:	Denver Water will collaborate with local Offices of Emergency Management to identify additional locations to stand up physical EOCs.								
Estimated Cost:	TBD								
Potential Funding Sources:	Denver Water District funds, TBD								
Implementation Timeline:	Short (1-2 years); Ongoing								
Goals Met:	4, 5, 6, 7								
Benefits:	An Emergency Operations Center (EOC) serves as a central command hub for coordinating emergency response efforts, managing resources, and ensuring effective communication during crises. Having an EOC can alleviate stress during an emergency by having key stakeholders in the same room to discuss how to resolve the incident.								
Impact on Future Development:	Expanding EOC capacity strengthens emergency management infrastructure, supporting resilient growth and future development across the Denver Water District.								
Impact on Critical Facilities/Lifelines:	Additional EOC sites improve operational continuity and decision-making during emergencies, safeguarding critical water facilities from prolonged outages or damage.								
Impact on Capabilities:	Collaborating with local emergency management offices enhances Denver Water's disaster response capabilities, enabling more efficient resource deployment and communication during hazard events.								
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☒ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)							
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)							
Priority:	☒ High	☐ Medium	☐ Low						
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Utilize existing EOC</td><td>Facility may become overrun during large-scale hazard events.</td></tr> <tr> <td>Remove old EOC</td><td>Cost, loss of critical service, not an option.</td></tr> </tbody> </table>	No Action	Current problem exists	Utilize existing EOC	Facility may become overrun during large-scale hazard events.	Remove old EOC	Cost, loss of critical service, not an option.		
No Action	Current problem exists								
Utilize existing EOC	Facility may become overrun during large-scale hazard events.								
Remove old EOC	Cost, loss of critical service, not an option.								

Action 2026-Denver Water-08. Increase Public Awareness: Strontia Springs Dam

Lead Agency:	Denver Water Operations and Maintenance								
Supporting Agencies:	FERC, Denver Water Administration								
Hazard(s) of Concern:	☒ Dam Failure ☐ Drought ☐ Earthquake ☒ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☐ Wildfire								
Description of the Problem:	FERC requested Denver Water increase public awareness of the risks of Strontia Springs Dam to recreators in Waterton Canyon.								
Description of the Solution:	Denver Water displayed signage throughout the canyon to increase public awareness of downstream risks. Denver Water will collaborate with FERC to develop informational flyers to be sent to properties near Strontia Springs Dam in Waterton Canyon which will raise awareness for dam failure risks and safety measures in case of an emergency.								
Estimated Cost:	Low								
Potential Funding Sources:	Denver Water District funds								
Implementation Timeline:	Short (1-2 years)								
Goals Met:	3, 4, 5, 6, 8								
Benefits:	This action will improve the safety and security of those who live near the dam and increase the resilience of responding agencies.								
Impact on Future Development:	Enhanced public awareness and communication strategies strengthen community resilience, supporting safe recreational use and sustainable development near critical water infrastructure.								
Impact on Critical Facilities/Lifelines:	Collaborating with FERC to improve risk communication reduces the likelihood of unsafe behaviors near Strontia Springs Dam, protecting the integrity of this critical facility.								
Impact on Capabilities:	Developing and implementing targeted outreach materials improves Denver Water's emergency communication capabilities, ensuring timely and effective dissemination of safety information.								
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☒ Education and Awareness Programs (EAP)								
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☒ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)								
Priority:	☒ High ☐ Medium ☐ Low								
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Utilize existing signage</td><td>The signage does not provide information on safety measures in case of a dam failure.</td></tr> <tr> <td>Remove signage</td><td>Problem persists with lack of public awareness and safety.</td></tr> </tbody> </table>			No Action	Current problem exists	Utilize existing signage	The signage does not provide information on safety measures in case of a dam failure.	Remove signage	Problem persists with lack of public awareness and safety.
No Action	Current problem exists								
Utilize existing signage	The signage does not provide information on safety measures in case of a dam failure.								
Remove signage	Problem persists with lack of public awareness and safety.								

Action 2026-Denver Water-09. Critical Facility Protection

Lead Agency:	Denver Water Engineering		
Supporting Agencies:	Denver Water Administration		
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☒ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☐ Wildfire		
Description of the Problem:	Critical facilities need to be protected to the 500-year flood level. The Strontia Springs Reservoir Headquarters facility is located in the flood hazard area.		
Description of the Solution:	Denver Water will conduct a feasibility assessment to determine what additional floodproofing measures are needed at the critical facility to protect it to the 500-year flood level. Options include: - Elevation of facility - Floodproofing of facility - Mobile flood barriers Once the most cost-effective option is identified, the facility owner or manager will carry out the option.		
Estimated Cost:	Medium		
Potential Funding Sources:	FEMA HMA, USDA Community Facilities Grant Program, District Budget		
Implementation Timeline:	Within 5 Years		
Goals Met:	1, 3, 5		
Benefits:	Ensures continuity of operations.		
Impact on Future Development:	The risk of significant damage occurring to the structure will be reduced, which will allow critical operations to be maintained or only briefly interrupted in severe events. This provides continued support for both current and future development in the service area.		
Impact on Critical Facilities/Lifelines:	This action will protect critical facilities, maintaining the critical services that it provides.		
Impact on Capabilities:	This action improves continuity of operations during a flood event, allows for a more rapid return to pre-disaster capabilities after a flood event, and faster deployment of post disaster capabilities.		
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☒ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)		
CRS Category:	☐ Preventative Measures (PR) ☒ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)		
Priority:	☒ High ☐ Medium ☐ Low		
Alternatives:	No Action		Current problem exists
	Relocate facility		Relocation is expensive and results in loss or delay of critical services in the immediate area
	Establish plans to enter into MOU with neighboring critical facilities to provide service during flood events		Reduction in response times and delay of critical services in the immediate area.

Action 2026-Denver Water-10. Strontia Springs Reservoir Rehab

Lead Agency:	Denver Water District								
Supporting Agencies:	Douglas County Engineer, Douglas County OEM, Colorado DHSEM								
Hazard(s) of Concern:	☒ Dam Failure ☐ Drought ☐ Earthquake ☒ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☐ Wildfire								
Description of the Problem:	The Strontia Springs Reservoir is a High Hazard Dam that is located on the South Platte River. The dam is owned by the Denver Water District. Failure of the dam could result in inundation of residential properties along Waterton Canyon Road, woodland and forested areas, and recreational areas in Unincorporated Douglas County. Although the dam was last inspected in 2024 and was noted to be in satisfactory conditions, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions. Denver Water is currently rebuilding the hydroelectric facility located at Strontia Springs Reservoir in Waterton Canyon, with the project projected to be completed in early Summer of 2026.								
Description of the Solution:	The Douglas County Engineer will work with the Denver Water District to complete an engineering study of the Strontia Springs Reservoir. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Denver Water District will pursue funding support, permit approval, and implement the cost-effective measures. Douglas County will support initiatives as applicable.								
Estimated Cost:	High								
Potential Funding Sources:	FEMA HMA, HHPD, USDA Watershed Rehabilitation Program								
Implementation Timeline:	Within 5 years								
Goals Met:	4, 5, 6, 7, 8								
Benefits:	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.								
Impact on Future Development:	Future development located in or near the dam inundation area will be further protected from a dam failure event.								
Impact on Critical Facilities/Lifelines:	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.								
Impact on Capabilities:	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.								
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☒ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)								
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)								
Priority:	☐ High ☒ Medium ☐ Low								
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Decommission Dam</td><td>High cost, flood risk for nearby infrastructure increased, loss an environmental, flood control, and stormwater management resource.</td></tr> <tr> <td>Elevate nearby structures</td><td>Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions</td></tr> </tbody> </table>			No Action	Current problem exists	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss an environmental, flood control, and stormwater management resource.	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions
No Action	Current problem exists								
Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss an environmental, flood control, and stormwater management resource.								
Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions								

Action 2026-Denver Water-11. Cheesman Dam Rehab

Lead Agency:	Denver Water District								
Supporting Agencies:	Douglas County Engineer, Douglas County OEM, Colorado DHSEM								
Hazard(s) of Concern:	☒ Dam Failure ☐ Drought ☐ Earthquake ☒ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☐ Wildfire								
Description of the Problem:	The Cheesman Dam is a High Hazard Dam that is located on the South Platte River. The dam is owned by the Denver Water District. Failure of the dam could result in inundation of structures and properties along Wigwam and Wigwam Creek Roads, woodland and forested areas, and recreational areas in Unincorporated Douglas County in Unincorporated Douglas County. Although the dam was last inspected in 2025 and was noted to be in satisfactory conditions, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.								
Description of the Solution:	The Douglas County Engineer will work with the Denver Water District to complete an engineering study of the Cheesman Dam. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Denver Water District will pursue funding support, permit approval, and implement the cost-effective measures. Douglas County will support initiatives as applicable.								
Estimated Cost:	High								
Potential Funding Sources:	FEMA HMA, HHPD, USDA Watershed Rehabilitation Program								
Implementation Timeline:	Within 5 years								
Goals Met:	4, 5, 6, 7, 8								
Benefits:	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.								
Impact on Future Development:	Future development located in or near the dam inundation area will be further protected from a dam failure event.								
Impact on Critical Facilities/Lifelines:	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.								
Impact on Capabilities:	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.								
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☒ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)								
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)								
Priority:	☐ High	☒ Medium	☐ Low						
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Decommission Dam</td><td>High cost, flood risk for nearby infrastructure increased, loss an environmental, flood control, and stormwater management resource.</td></tr> <tr> <td>Elevate nearby structures</td><td>Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions</td></tr> </tbody> </table>			No Action	Current problem exists	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss an environmental, flood control, and stormwater management resource.	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions
No Action	Current problem exists								
Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss an environmental, flood control, and stormwater management resource.								
Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions								

9. DOMINION WATER AND SANITATION DISTRICT

This jurisdictional annex to the Douglas County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Dominion Water and Sanitation District with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Dominion Water and Sanitation District, describes who participated in the planning process, assesses Dominion Water and Sanitation District's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

9.1 HAZARD MITIGATION PLANNING TEAM

The Dominion Water and Sanitation District identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Dominion Water and Sanitation District departments. The General Manager represented the district on the Douglas County HMP Local Planning Committee and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 9-1 summarizes Dominion Water and Sanitation District officials who participated in the development of the annex and in what capacity. Additional documentation of the Dominion Water and Sanitation District's planning activities through Local Planning Committee meetings is included in Volume I.

Table 9-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Andrea Cole, General Manager Address: 9250 E. Costilla Ave, Suite 400, Greenwood Village CO 80112 Phone Number: 720-531-4210 Email: andrea.cole@dominionwsd.com	Name/Title: Britta Strother Chou, Director of Planning Address: 9250 E. Costilla Ave, Suite 400, Greenwood Village CO 80112 Phone Number: 303-968-7782 Email: Britta.Strother@dominionwsd.com
National Flood Insurance Program Floodplain Administrator	
This jurisdiction does not participate in the National Flood Insurance Program	
Additional Contributors	
Name/Title: Pamela Grover, Engineering Manager Method of Participation: Stakeholder and Local Planning Committee Member. Provided information on mitigation action development for the District.	
Name/Title: Evan Bahn, Operations Manager Method of Participation: Stakeholder and Local Planning Committee Member.	
Name/Title: Alexander Deloach, Engineering Intern Method of Participation: Stakeholder and Local Planning Committee Member.	
Name/Title: Andrea Cole, General Manager Method of Participation: Stakeholder and Local Planning Committee Member.	

9.2 COMMUNITY PROFILE

9.2.1 Location

The Dominion Water and Sanitation District is a wholesale provider of water, wastewater, and stormwater services in northwest Douglas County. Its service area spans approximately 33,000 acres, including the rapidly growing Sterling Ranch master-planned community. The district was created to deliver renewable water supplies and centralized wastewater services to support sustainable development in the region (DWSD n.d.).

9.2.2 History

The Dominion Water and Sanitation District was founded in 2004 with a mission to provide reliable and sustainable water supplies to its retail customers. Although districts within the service area are not required to use DWSD's services, the services are available as an option for both current and future retail providers.

9.2.3 Governing Body

The Dominion Water and Sanitation District is governed by a five-member Board of Directors of which three are independent members not associated with Dominion's current customer or partner districts. The Sterling Ranch community is represented by two seats to provide input as Dominion's largest customer. Dominion has an experienced and creative team of engineers, attorneys, district managers, and other disciplines that are passionate about the service we provide our customers (DWSD n.d.).

Development of this annex was carried out by the members of the local mitigation planning team, whose members are listed in Table 9-1.

9.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

Dominion Water and Sanitation District performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day local government operations. As part of the hazard mitigation analysis, planning and /policy documents were reviewed and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. Development of an updated mitigation strategy provided an opportunity for Dominion Water and

Sanitation District to identify opportunities for integrating mitigation concepts into ongoing Dominion Water and Sanitation District procedures.

9.3.1 Planning and Regulatory Capability and Integration

Table 9-2 summarizes the planning and regulatory tools that are available to Dominion Water and Sanitation District.

Table 9-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
CODES, ORDINANCES, & REGULATIONS				
Building Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Zoning/Land Use Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Subdivision Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Site Plan Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Stormwater Management Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Post-Disaster Recovery/ Reconstruction Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Real Estate Disclosure Requirements	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Growth Management	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Environmental Protection Ordinance(s)	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Flood Damage Prevention Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Wellhead Protection	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Emergency Management Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Change Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
PLANNING DOCUMENTS				
General/Comprehensive Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Capital Improvement Plan	Yes	Annual Budget	Local	Board of Directors
How has or will this be integrated with the HMP and how does this reduce risk? The capital improvement plan (CIP) is included in the District's annual budget. During the creation of the annual budget, priority projects are identified, as well as funding sources and financing options.				
Disaster Debris Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Floodplain Management or Watershed Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Stormwater Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Open Space Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Urban Water Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Habitat Conservation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Economic Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Wildfire Protection Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Forest Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Transportation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Agriculture Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Action/ Resilience/Sustainability Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Tourism Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Business/ Downtown Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	Yes	Drought Resiliency Plan	Local	Board of Directors
How has or will this be integrated with the HMP and how does this reduce risk?				
The Drought Resiliency Plan involves proactive strategies to help adapt to drier climates and manage water resources effectively. Key components include implementing water-saving practices and technologies to reduce consumption; utilizing green infrastructure to manage rainwater and reducing runoff; setting a direction for proactive measures and identifying actions to adapt to drought hazards; ensuring that utilities are prepared to withstand and recover from drought impacts.				
RESPONSE/RECOVERY PLANNING				
Emergency Operations Plan	Yes	Being drafted, to be completed in 2026	Local	Board of Directors
How has or will this be integrated with the HMP and how does this reduce risk?				
The primary purpose of the emergency response plan (ERP) is to provide a structured approach to managing emergencies, ensuring safety, minimizing damage, and facilitating a swift recovery.				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Continuity of Operations Plan	Yes	Being drafted, to be completed in 2026	Local	Board of Directors
How has or will this be integrated with the HMP and how does this reduce risk? The Continuity of Operations Plan will be held within the Emergency Response Plan. The COOP will ensure that essential functions and services can continue or resume during and after a disaster.				
Substantial Damage Response Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Threat and Hazard Identification and Risk Assessment	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Post-Disaster Recovery Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Public Health Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	Yes	Site specific plans (lift stations, wastewater treatment plants)	Local	CDPHE, Board of Directors
How has or will this be integrated with the HMP and how does this reduce risk? A site-specific Emergency Operations Plan (EOP) is essential to ensure a coordinated and effective response to emergencies. It is tailored to the unique layout, operations, and risks of the workplace, ensuring that employees, contractors, and visitors are protected. The plans include the following elements site risk assessment, map of the physical layout, roles and responsibilities, emergency procedures, and communication protocols.				

9.3.2 Development and Permitting Capability

Table 9-3 summarizes the capabilities of Dominion Water and Sanitation District to oversee and track development.

Table 9-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits?	N/A	-
- If you issue development permits, what department is responsible? - If you do not issue development permits, what is your process for tracking new development?	N/A	-
Are permits tracked by hazard area? (For example, floodplain development permits.)	N/A	-
Do you have a buildable land inventory?	N/A	-

	Yes/No	Comment
If you have a buildable land inventory, please describe		
Describe the level of buildout in your jurisdiction.	N/A	-

9.3.3 Administrative and Technical Capability

Table 9-4 summarizes potential staff and personnel resources available to Dominion Water and Sanitation District and their current responsibilities that contribute to hazard mitigation.

Table 9-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
ADMINISTRATIVE CAPABILITY		
Planning Board	No	-
Zoning Board of Adjustment	No	-
Planning Department	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Public Works/Highway Department	No	-
Construction/Building/Code Enforcement Department	No	-
Emergency Management/Public Safety Department	No	-
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	Regular maintenance at each site location
Mutual aid agreements	No	-
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	-
Other: Board of Directors	Yes	Dominion is governed by a five-member Board of Directors.
TECHNICAL/STAFFING CAPABILITY		
Planners or engineers with knowledge of land development and land management practices	No	-
Engineers or professionals trained in building or infrastructure construction practices	Yes	Engineers

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Planners or engineers with an understanding of natural hazards	No	-
Staff with expertise or training in benefit/cost analysis	Yes	Finance
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazus applications	Yes	Planners and engineers
Staff that work with socially vulnerable populations or underserved communities	No	-
Environmental scientists familiar with natural hazards	No	-
Surveyors	No	-
Emergency manager	No	-
Grant writers	No	-
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

9.3.4 Fiscal Capability

Table 9-5 summarizes financial resources available to Dominion Water and Sanitation District.

Table 9-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	No
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	No
User fees for water, sewer, gas, or electric service	Yes
Impact fees for homebuyers or developers of new development/homes	Yes
Stormwater utility fee	No
Incur debt through general obligation bonds	No
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	No
Open Space Acquisition funding programs	No
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

9.3.5 Education and Outreach Capability

Table 9-6 summarizes the education and outreach resources available to Dominion Water and Sanitation District.

Table 9-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Media Relations
Personnel skilled or trained in website development	Yes	Through Sterling Ranch
Personnel skilled or trained in website development	Yes	Contractor
Hazard mitigation information available on your website	Yes	On the FAQ page related to water sourcing, renewable resources, and water treatment.
Social media for hazard mitigation education and outreach	No	-
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	Yes	Communications through Sterling Ranch. Can tie into County system.
Natural disaster/safety programs in place for schools	No	Not in the WSD's purview.
Organizations that conduct outreach to socially vulnerable populations and underserved populations	No	-
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	Through Sterling Ranch

9.3.6 Community Classifications

Table 9-7 summarizes classifications for community programs available to Dominion Water and Sanitation District.

Table 9-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable

9.4 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). According to the FEMA Community Status Book Report, Dominion Water and Sanitation District does not participate in the NFIP.

9.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Dominion Water and Sanitation District does not issue permits. New infrastructure or building permitting or construction is performed by Douglas County and the towns and cities within it.

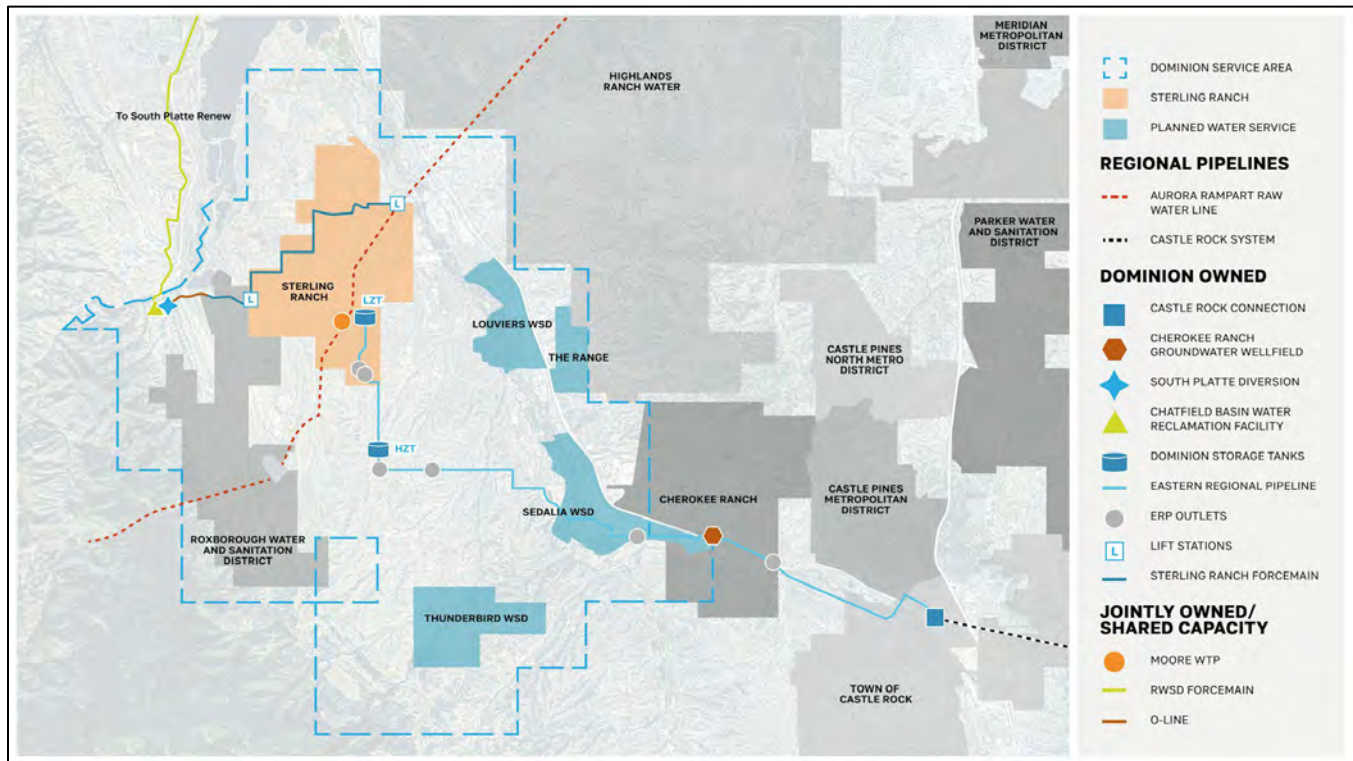
9.6 JURISDICTIONAL RISK ASSESSMENT

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Dominion Water and Sanitation District's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

9.6.1 Hazard Area

The hazard profiles in Chapters 6 to 14 in Volume I provide detailed information regarding vulnerability to the identified hazards. The service area for the Dominion Water and Sanitation District primarily covers Sterling Ranch, which is located in Unincorporated Douglas County, as shown in Figure 9-1. Refer to Chapter 2 in Volume II to view the hazard area extent and location maps for the Unincorporated Douglas County.

Figure 9-1. Dominion Water and Sanitation District Service Area



Source: (Dominion Water and Sanitation District n.d.)

9.6.2 Hazard Event History

The history of natural and non-natural hazard events in Dominion Water and Sanitation District is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its jurisdictions. Table 9-8 provides details on loss and damage in Dominion Water and Sanitation District during hazard events since the last hazard mitigation plan update.

Table 9-8. Hazard Event History in Dominion Water and Sanitation District

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses
September 6, 2019	Severe Weather	N/A	Severe thunderstorms produced a combination of large hail (1.25 inches) and heavy rain. A brief tornado touched down in an open field near Highlands Ranch. A blast of lightning triggered a house fire in Douglas County, causing extensive damage.	No damage was reported in Dominion's Jurisdiction.
October 29-30, 2019	Severe Weather	N/A	A winter storm brought record breaking temperatures and up to a foot of snow. Numerous schools were closed due to	No damage was reported in Dominion's Jurisdiction.

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses
			heavy snow and hazardous road conditions. Storm totals included: 10 inches near Parker; 7.5 inches near Castle Pine.	
January 20, 2020 - May 11, 2023	Pandemic EM-3436-CO, DR-4498-CO	Yes	During the COVID-19 pandemic disaster declaration, there were a reported 102,146 cases of COVID-19 and 527 COVID-19 related deaths in Douglas County.	The COVID 19 pandemic resulted in illness and death in Dominion's jurisdiction similar to that of areas with comparable populations. During the Pandemic, water and wastewater service needs within the jurisdiction increased requiring additional the District to expedite several capital improvement projects. However, despite the increase in demand the District remained fully able to serve its constituents.
March 13-14, 2021	Severe Weather	N/A	Strong winds compounded with heavy snowfall made the roadways impassable in the afternoon and evening. Peak wind gusts to 48 mph produced extensive drifting snow. Drifts ranged from 3 to 6 feet deep. The heavy wet snow caused extensive tree damage and produced power outages.	No damage was reported in Dominion's Jurisdiction.
November - December 2021	Drought	N/A	Portions of the County were in a severe to extreme drought classification (D2/D3) through the months of November and December.	No damage was reported in Dominion's Jurisdiction.
February 23, 2023	Severe Weather	N/A	Bands of moderate to heavy snow showers coupled with strong winds produced poor visibilities and hazardous driving conditions. During the morning hours on the 23rd, wind chill temperatures ranged from -25°F to -30°F.	No damage was reported in Dominion's Jurisdiction.
May 12-13, 2023	Flood	N/A	Swollen creeks and streams produced flooding and flash flooding. Numerous hiking trails in Castlewood Canyon State Park were closed as they were underwater and impassable.	No damage was reported in Dominion's Jurisdiction.

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses
			Three men in the foothills of Douglas County had to be rescued when their vehicle got stuck in snow along Rampart Range Road in Pike National Forest.	
June 22, 2023	Severe Weather DR-4731-CO	Yes	An EF1 tornado touched down just south of CO-470 in the city of Highlands Ranch. Preliminarily the tornado was on the ground for 6.3 miles. No injuries were reported but over 100 trees were downed. Some window/shingle damage has been noted to both houses and commercial properties. Up to 2.5 inches hail occurred.	No damage was reported in Dominion's Jurisdiction.
January 13-16, 2024	Severe Weather	N/A	A long duration snowfall event occurred resulting in several feet of snow. Total snowfall accumulations across the urban corridor and northeast were light, with storm totals generally less than 6 inches, but the icy conditions did cause some travel impacts. Wind chill temperature dropped to -34°F; the record low of -19°F was tied on the morning of the 16th. Some of the plains locations dropped down to -30°F.	No damage was reported in Dominion's Jurisdiction.
June 9, 2024	Severe Weather	N/A	Slow moving thunderstorms produced hail (1.25 inches) and heavy rainfall. There were reports of cars being swamped due to rising waters.	No damage was reported in Dominion's Jurisdiction.
July 30 – August 7, 2024	Wildfire	N/A	A fire was contained August 7th after reaching about 579 acres. No structures were lost in the fire. Several firefighters were treated for heat exhaustion. Mandatory evacuations were ordered for the Deer Creek Mesa area and several subdivisions in the area of Ken Caryl.	No damage was reported in Dominion's Jurisdiction.

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

9.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Dominion Water and Sanitation District.

Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions. Dominion Water and Sanitation District reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Dominion Water and Sanitation District agreed with the preliminary hazard rankings as identified in Table 9-9.

Table 9-9 shows Dominion Water and Sanitation District's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 9-9. Hazard Ranking

Hazard	Rank
Dam Failure	Low
Drought	High
Earthquake	Low
Flood	Medium
Geologic Hazards	Medium
Hazardous Materials	Medium
Pandemic	Medium
Severe Weather	High
Wildfire	High

Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction

Critical Facilities

Table 9-10 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 9-10. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Event	0.2% Event		
According to the critical facilities list for this HMP update, there are no critical facilities located in the flood hazard area in the Dominion Water and Sanitation District.					

Source: Douglas County; CDOT; CDPHE; ESRI; HIFLD; US Energy Information Administration; FEMA

9.6.4 Identified Issues

After a review of Dominion Water and Sanitation District's hazard event history, hazard rankings, hazard location, and current capabilities, Dominion Water and Sanitation District identified the following vulnerabilities within the community:

- To ensure continuity of operations, the Dominion Water and Sanitation District needs backup generators in case of a power outage due to natural hazard events.
- During a storm event in 2024, Xcel cut power to a segment of the system that included a sanitary lift station. They did not notify the sanitary utility provider.
- Dominion Water and Sanitation District does not have a Continuity of Operations plan in place for staffing in case of an emergency.

9.7 MITIGATION STRATEGY AND PRIORITIZATION

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

9.7.1 Past Mitigation Action Status

Dominion Water and Sanitation District did not participate in the 2021 HMP and therefore does not have any past mitigation actions to review.

9.7.2 Additional Mitigation Efforts

Dominion Water and Sanitation District did not identify any additional mitigation efforts completed.

9.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Dominion Water and Sanitation District participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 "Selecting Appropriate Mitigation Measures for Floodprone Structures" (March 2007)
- FEMA "Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards" (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Dominion Water and Sanitation District would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in Dominion Water and Sanitation District priorities.

Table 9-11 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 12 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 9-12 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.

DRAFT

Table 9-11. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure	X	X		X						X
Drought	X	X		X						X
Earthquake	X	X		X						X
Flood	X	X		X						X
Geologic Hazards	X	X		X						X
Hazardous Materials	X	X								X
Pandemic	X									X
Severe Weather	X	X		X						X
Wildfire	X	X		X						X

Local Plans and Regulations (LPR)—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

Structure and Infrastructure Project (SIP)—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

Natural Systems Protection (NSP)—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

Education and Awareness Programs (EAP)—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

Preventative Measures (PR)—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

Property Protection (PP)—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

Public Information (PI)—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

Natural Resource Protection (NR)—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

Structural Flood Control Projects (SP)—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

Emergency Services (ES)—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities

Table 9-12. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria													High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Administrative	Hazards of Concern	Timeline	Community Lifelines	Other Local Objectives	Total	
2026-Dominion WSD-01	Sanitary Lift Stations	1	1	1	1	1	1	1	0	1	1	1	0	10	High
2026-Dominion WSD-02	Added Critical Facility	1	1	1	1	1	1	0	1	1	1	1	1	11	High
2026-Dominion WSD-03	Integrate Continuity of Operations Plan (COOP) into EOP Update	1	1	1	1	1	1	0	1	1	1	1	1	11	High

Note: Volume I, Section 19 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-12).

Action 2026-Dominion WSD-01. Sanitary Lift Stations

Lead Agency:	Dominion Water and Sanitation District		
Supporting Agencies:	-		
Hazard(s) of Concern:	☒ Dam Failure ☒ Drought ☒ Earthquake ☒ Flood ☒ Geologic Hazards	☒ Hazardous Materials ☐ Pandemic ☒ Severe Weather ☒ Wildfire	
Description of the Problem:	To ensure continuity of operations, the Dominion Water and Sanitation District needs backup generators in case of a power outage due to natural hazard events.		
Description of the Solution:	The Dominion Water and Sanitation District will fund generators at all Lift Stations in Dominion systems.		
Estimated Cost:	TBD		
Potential Funding Sources:	Dominion Water and Sanitation District Funds		
Implementation Timeline:	Short-term (1-2 years)		
Goals Met:	4, 7		
Benefits:	This action protects public health and safety and ensures continued operation of critical facilities and their essential functions during a power outage.		
Impact on Future Development:	Reliable power for essential infrastructure supports sustainable growth and future development by reducing service disruptions during hazard events.		
Impact on Critical Facilities/Lifelines:	Equipping lift stations with generators safeguards these critical facilities against operational failures during emergencies, maintaining system integrity.		
Impact on Capabilities:	This project enhances Dominion Water and Sanitation District's emergency preparedness and operational resilience by ensuring continuity of services during power interruptions.		
Mitigation Category	☐ Local Plans and Regulations (LPR) ☒ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)	
CRS Category	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)	
Priority	☒ High	☐ Medium	☐ Low
Alternatives	No Action	Current problem exists	
	Utilize solar panels	Not always reliable depending on the natural hazard event that causes power outage. Costly to implement.	
	Utilize Microgrids	Not always reliable and also costly to implement.	

Action 2026-Dominion WSD-02. Power Interruption Notifications

Lead Agency:	Dominion Water and Sanitation District		
Supporting Agencies:	Douglas County		
Hazard(s) of Concern:	☒ Dam Failure ☒ Drought ☒ Earthquake ☒ Flood ☒ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☒ Severe Weather ☒ Wildfire		
Description of the Problem:	During a storm event in 2024, Xcel cut power to a segment of the system that included a sanitary lift station. They did not notify the sanitary utility provider.		
Description of the Solution:	Dominion Water and Sanitation District will request Douglas County assistance in adding water and sanitary facilities to a list of critical assets that require notification from Xcel (or other power providers) for any interruption in power.		
Estimated Cost:	Low		
Potential Funding Sources:	Dominion Water and Sanitation District funds; County budget		
Implementation Timeline:	Short-term (1-2 years)		
Goals Met:	1, 4, 6, 7		
Benefits:	The addition of Dominion Water and Sanitation District into the Douglas County list for notifications will ensure the District is alerted to any potential interruptions to their water and sanitation systems and facilities. This line of communication can assist in maintaining continuity of operations, or information its consumers when services may become unavailable.		
Impact on Future Development:	Improved coordination with power providers strengthens infrastructure reliability, supporting sustainable growth and future development in the service area.		
Impact on Critical Facilities/Lifelines:	Adding water and sanitary assets to priority notification lists ensures uninterrupted operation of essential facilities like lift stations, reducing the risk of environmental and public health hazards.		
Impact on Capabilities:	This initiative enhances Dominion Water and Sanitation District's ability to respond quickly to power interruptions, improving overall emergency preparedness and operational resilience.		
Mitigation Category	☐ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☒ Education and Awareness Programs (EAP)		
CRS Category	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)		
Priority	☒ High ☐ Medium ☐ Low		
Alternatives	No Action		Current problem exists
	Remove the list station		Not an option, loss of critical service.
	Provide backup generator to lift station		Will still need to be notified in the event of an emergency to be able to implement the backup generator.

Action 2026-Dominion WSD-03. Integrate Continuity of Operations Plan (COOP) into EOP Update

Lead Agency:	Dominion Water and Sanitation District		
Supporting Agencies:	-		
Hazard(s) of Concern:	☒ Dam Failure ☒ Drought ☒ Earthquake ☒ Flood ☒ Geologic Hazards	☒ Hazardous Materials ☒ Pandemic ☒ Severe Weather ☒ Wildfire	
Description of the Problem:	Dominion Water and Sanitation District does not have a Continuity of Operations plan in place for staffing in case of an emergency.		
Description of the Solution:	Dominion Water and Sanitation District is currently updating its Emergency Operations Plan, which will include a Continuity of Operations plan as a component. This plan will help ensure operations are able to continue as normal in the event of an emergency.		
Estimated Cost:	Medium		
Potential Funding Sources:	District funds		
Implementation Timeline:	Short-term (1-2 years)		
Goals Met:	4, 5, 6, 7		
Benefits:	The Continuity of Operations Plan (COOP) will ensure that essential functions of the District continue during and after a disruption caused by emergencies, whether manmade, natural, or technological.		
Impact on Future Development:	Future development is protected by embedding resilience into operations, helping new infrastructure and services withstand and recover from disasters more effectively.		
Impact on Critical Facilities/Lifelines:	Critical facilities are safeguarded through detailed operational planning that prioritizes their functionality and rapid recovery in the face of disruptions.		
Impact on Capabilities:	Capabilities are enhanced by establishing a comprehensive COOP that strengthens interdepartmental coordination, emergency preparedness, and long-term operational resilience.		
Mitigation Category	☒ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)	
CRS Category	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)	
Priority	☒ High	☐ Medium	☐ Low
Alternatives	No Action	Current problem exists	
	Utilize neighboring jurisdiction COOP	Not locally specific to the District staff.	
	Rely on federal resources for continuity of operations	Not always reliable or accessible to the area.	

10. HIGHLANDS RANCH WATER AND SANITATION DISTRICT

This jurisdictional annex to the Douglas County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Highlands Ranch Water and Sanitation District (Highlands Ranch Water) with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Highlands Ranch Water District, describes who participated in the planning process, assesses Highlands Ranch Water District's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

10.1 HAZARD MITIGATION PLANNING TEAM

The Highlands Ranch Water District identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Highlands Ranch Water District departments. The Director of Engineering and Public Works represented the district on the Douglas County HMP Local Planning Committee and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 10-1 summarizes Highlands Ranch Water District officials who participated in the development of the annex and in what capacity. Additional documentation of the Highlands Ranch Water District' planning activities through Local Planning Committee meetings is included in Volume I.

Table 10-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Ryan Edwards, Engineering and Public Works Director Address: 62 Plaza Drive, Highlands Ranch, CO 80129 Phone Number: 303-791-0430 Email: redwards@highlandsranch.org	Name/Title: Sam Calkins, General Manager Address: 62 Plaza Drive, Highlands Ranch, CO 80129 Phone Number: 303-791-0430 Email: scalkins@hrwater.org
National Flood Insurance Program Floodplain Administrator	
This jurisdiction does not participate in the National Flood Insurance Program	
Additional Contributors	
Name/Title: Ryan Edwards, Engineering and Public Works Director Method of Participation: Attended meetings; provided information for annex development.	

10.2 COMMUNITY PROFILE

10.2.1 Location

Highlands Ranch Water, formerly known as the Centennial Water and Sanitation District, is a special district that provides water and wastewater services to the Highlands Ranch and Solstice communities in Douglas County. The

district serves more than 100,000 residents, including approximately 30,000 single-family homes, 7,200 multi-family units, and 1,100 commercial customers.

10.2.2 History

Established over 40 years ago, Highlands Ranch Water focuses on sustainable water management, utilizing renewable surface water sources for about 90% of its supply. Its services include water treatment, wastewater management, infrastructure maintenance, and community outreach. The district emphasizes environmental stewardship, operational efficiency, and long-term resource planning to ensure reliable service for the growing population (Highlands Ranch Water n.d.).

10.2.3 Governing Body

Highlands Ranch Water is governed by a board of directors, which, pursuant to state law, consists of five members. In order to be eligible for nomination to the board, prospective board members must be electors of the district as defined by state law. Directors are elected to staggered four-year terms of office at successive biennial elections.

Development of this annex was carried out by the members of the local mitigation planning team, whose members are listed in Table 10-1.

10.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

Highlands Ranch Water District performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day local government operations. As part of the hazard mitigation analysis, planning and /policy documents were reviewed and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. Development of an updated mitigation strategy provided an opportunity for Highlands Ranch Water District to identify opportunities for integrating mitigation concepts into ongoing Highlands Ranch Water District procedures.

10.3.1 Planning and Regulatory Capability and Integration

Table 10-2 summarizes the planning and regulatory tools that are available to Highlands Ranch Water District.

Table 10-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
CODES, ORDINANCES, & REGULATIONS				
Building Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Zoning/Land Use Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Subdivision Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Site Plan Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Stormwater Management Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Post-Disaster Recovery/ Reconstruction Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Real Estate Disclosure Requirements	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Growth Management	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Environmental Protection Ordinance(s)	Yes	Colorado Department of Health and Environment Regulations	State and Local	Colorado Department of Health and Highlands Ranch Water District
How has or will this be integrated with the HMP and how does this reduce risk? The district enforces the Safe Drinking Water Act.				
Flood Damage Prevention Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Wellhead Protection	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Emergency Management Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Change Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other: Highlands Ranch Water and Sewer Standard Specifications	Yes	Highlands Ranch Water and Sewer Standard Specifications, May 2020	Local	Highlands Ranch Water District
How has or will this be integrated with the HMP and how does this reduce risk? Updated as needed.				
PLANNING DOCUMENTS				
General/Comprehensive Plan	Yes	Comprehensive Master Plan, 1980	Local	Highlands Ranch Water District
How has or will this be integrated with the HMP and how does this reduce risk? The Comprehensive Master Plan was first adopted in 1980 and is updated annually. This plan created the framework for the infrastructure and services that are the responsibility of the district. As the community grows, the district has prepared detailed studies, specifications, rules and regulations, operational plans, and annual reports on the many aspects of providing water and wastewater services.				
Capital Improvement Plan	Yes	Annual Budget and Exhibit B to the Rules and Regulations	Local	Highlands Ranch Water District
How has or will this be integrated with the HMP and how does this reduce risk? Adoption of the Capital Plan and Operational Plan. During the preparation of the annual budget, the district will review the current HMP and identify opportunities to implement measures to prevent or mitigate identified risks.				
Disaster Debris Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Floodplain Management or Watershed Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Stormwater Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Open Space Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Urban Water Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Habitat Conservation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Economic Development Plan	Yes	Comprehensive Annual Financial Report, June 2025	Local	Highlands Ranch Water District
How has or will this be integrated with the HMP and how does this reduce risk? Prepared annually by the district.				
Community Wildfire Protection Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Forest Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Transportation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Agriculture Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Action/ Resilience/Sustainability Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Tourism Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Business/ Downtown Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other: Water Efficiency Plan	Yes	2023 Water Efficiency Plan	State	Colorado Water Conservation Board, Water District
How has or will this be integrated with the HMP and how does this reduce risk? Colorado water providers who supply more than 2,000-acre feet of water must submit or update water efficiency plans with the Colorado Water Conservation Board (CWCB). Colorado requires water efficiency plans to be updated once every seven years. Water efficiency plans must consider a minimum set of criteria developed by the CWCB in order to gain state approval.				
Other: Water Quality Report	Yes	2025 Water Quality Report	Local	Water District
How has or will this be integrated with the HMP and how does this reduce risk? The Environmental Protection Agency (EPA) requires public water supplies that serve the same people year-round (community water systems) to provide consumer confidence reports to their customers. These reports are also known as annual water quality reports. This report summarizes information regarding water sources used, any detected contaminants, compliance and education.				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency

This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a secure and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources.

RESPONSE/RECOVERY PLANNING

Emergency Operations Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Continuity of Operations Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Substantial Damage Response Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Threat and Hazard Identification and Risk Assessment	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Post-Disaster Recovery Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Public Health Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

10.3.2 Development and Permitting Capability

Table 10-3 summarizes the capabilities of Highlands Ranch Water District to oversee and track development.

Table 10-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits?	N/A	-
- If you issue development permits, what department is responsible? - If you do not issue development permits, what is your process for tracking new development?	N/A	-
Are permits tracked by hazard area? (For example, floodplain development permits.)	N/A	-

	Yes/No	Comment
Do you have a buildable land inventory? • If you have a buildable land inventory, please describe	N/A	-
Describe the level of buildout in your jurisdiction.	N/A	-

10.3.3 Administrative and Technical Capability

Table 10-4 summarizes potential staff and personnel resources available to Highlands Ranch Water District and their current responsibilities that contribute to hazard mitigation.

Table 10-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
ADMINISTRATIVE CAPABILITY		
Planning Board	No	-
Zoning Board of Adjustment	No	-
Planning Department	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	Yes	The Finance & Administration department is chartered to provide support functions for both the Highlands Ranch Water & Sanitation District and the Highlands Ranch Metro District. The support functions performed include accounting, payroll, treasury, financial reporting, budgeting, utility customer service, information technology and office services and support.
Public Works/Highway Department	No	-
Construction/Building/Code Enforcement Department	No	-
Emergency Management/Public Safety Department	No	-
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	No	-
Mutual aid agreements	No	-
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	-
Other	No	-
TECHNICAL/STAFFING CAPABILITY		

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Planners or engineers with knowledge of land development and land management practices	Yes	Public Works Engineering
Engineers or professionals trained in building or infrastructure construction practices	Yes	Public Works Engineering
Planners or engineers with an understanding of natural hazards	Yes	Public Works Engineering
Staff with expertise or training in benefit/cost analysis	Yes	Public Works Engineering
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazus applications	Yes	Public Works Engineering
Staff that work with socially vulnerable populations or underserved communities	No	-
Environmental scientists familiar with natural hazards	No	-
Surveyors	No	Consultants
Emergency manager	Yes	Public Works Engineering
Grant writers	Yes	Operations/Regulatory Administrator
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

10.3.4 Fiscal Capability

Table 10-5 summarizes financial resources available to Highlands Ranch Water District.

Table 10-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	No
Capital improvement project funding	Yes – the district has a capital improvements plan that is updated and adopted in July of each year. Information from this plan is then included in the preparation of annual budgets, long range financial planning and adoption of rates and fees.
Authority to levy taxes for specific purposes	No
User fees for water, sewer, gas, or electric service	Yes – the Highlands Ranch Metropolitan District, whose

Financial Resources	Accessible or Eligible to Use? (Yes/No)
	boundaries are identical to Centennial's, does charge a stormwater fee. HRMD charges a monthly fee to all properties for costs associated with the maintenance and improvements of drainage channels, including water quality.
Impact fees for homebuyers or developers of new development/homes	Yes
Stormwater utility fee	No (by others)
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	Yes – state-sponsored grant programs and federal grant programs
Open Space Acquisition funding programs	No
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

10.3.5 Education and Outreach Capability

Table 10-6 summarizes the education and outreach resources available to Highlands Ranch Water District.

Table 10-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Communications Manager
Personnel skilled or trained in website development	Yes	Digital Communications Specialist
Hazard mitigation information available on your website	No	-
Social media for hazard mitigation education and outreach	Yes	Facebook, Instagram, X, LinkedIn, Nextdoor, Youtube
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	No	-
Natural disaster/safety programs in place for schools	No	-
Organizations that conduct outreach to socially vulnerable populations and underserved populations	No	-
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	Websites/Mailers/Eblasts Water Ambassadors is a water education program serving the south Denver metro area. The program empowers students to make wise choices about how they use water through engaging, interactive classroom presentations. The program

Outreach Resources	Available? (Yes/No)	Comment
		has recently been revised and updated to reflect the changes in academic expectations and teaching methods.

10.3.6 Community Classifications

Table 10-7 summarizes classifications for community programs available to Highlands Ranch Water District.

Table 10-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable

10.4 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). According to the FEMA Community Status Book Report, Highlands Ranch Water District does not participate in the NFIP.

10.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Highlands Ranch Water District does not issue permits. New infrastructure or building permitting or construction is performed by Douglas County and the towns and cities within it.

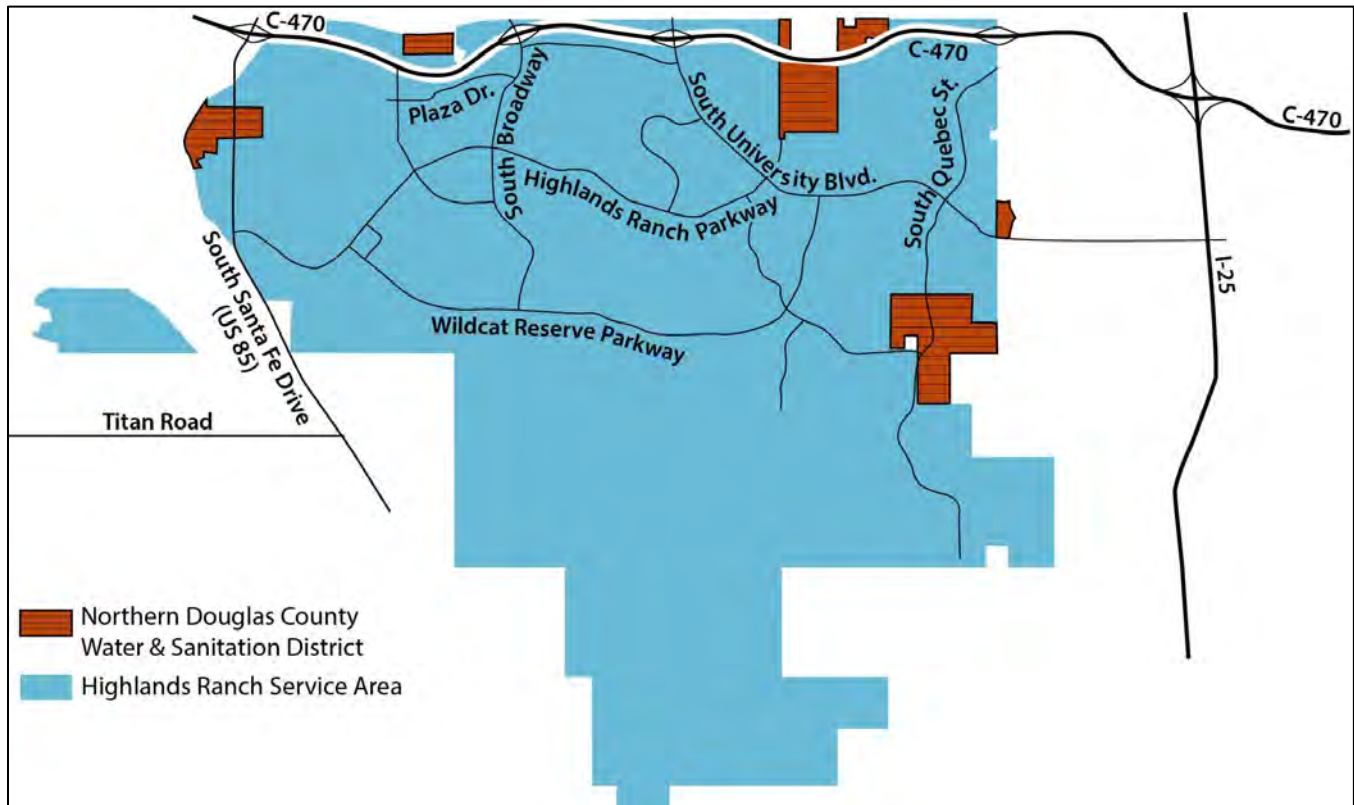
10.6 JURISDICTIONAL RISK ASSESSMENT

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Highlands Ranch Water District's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

10.6.1 Hazard Area

The hazard profiles in Chapters 6 to 14 in Volume I provide detailed information regarding vulnerability to the identified hazards. The service area for the Highlands Ranch Water District includes all properties located in the Highlands Ranch and Solstice communities, which is located in Unincorporated Douglas County, as shown in Figure 10-1. The district is the wholesale service provider for Northern Douglas County Water and Sanitation District. Refer to Chapter 2 in Volume II to view the hazard area extent and location maps for the Unincorporated Douglas County.

Figure 10-1. Highlands Ranch Water District Service Area



Source: (Highlands Ranch Water District 2022)

10.6.2 Hazard Event History

The history of natural and non-natural hazard events in Highlands Ranch Water District is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its jurisdictions. Table 10-8 provides details on loss and damage in Highlands Ranch Water District during hazard events since the last hazard mitigation plan update.

Table 10-8. Hazard Event History in Highlands Ranch Water District

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses
September 6, 2019	Severe Weather	N/A	Severe thunderstorms produced a combination of large hail (1.25 inches) and heavy rain. A brief tornado touched down in an open field near Highlands Ranch. A blast of lightning triggered a house fire in Douglas County, causing extensive damage.	No damages or losses recorded.
October 29-30, 2019	Severe Weather	N/A	A winter storm brought record breaking temperatures and up to a foot of snow. Numerous schools were closed due to heavy snow and hazardous road conditions. Storm totals included: 10 inches near Parker; 7.5 inches near Castle Pines.	No damages or losses recorded.
January 20, 2020 - May 11, 2023	Pandemic EM-3436-CO, DR-4498-CO	Yes	During the COVID-19 pandemic disaster declaration, there were a reported 102,146 cases of COVID-19 and 527 COVID-19 related deaths in Douglas County.	The District experienced staff outages due to COVID; the District managed the events and had no lingering effects
March 13-14, 2021	Severe Weather	N/A	Strong winds compounded with heavy snowfall made the roadways impassable in the afternoon and evening. Peak wind gusts to 48 mph produced extensive drifting snow. Drifts ranged from 3 to 6 feet deep. The heavy wet snow caused extensive tree damage and produced power outages.	Power outage that was managed through backup generators
November - December 2021	Drought	N/A	Portions of the County were in a severe to extreme drought classification (D2/D3) through the months of November and December.	As a result of the drought, HRW issued water restrictions in the summer of 2022, resulting in a loss of water revenues estimated to be approximately \$4M
February 23, 2023	Severe Weather	N/A	Bands of moderate to heavy snow showers coupled with strong winds produced poor visibilities and hazardous driving conditions. During the morning hours on the 23rd, wind chill temperatures ranged from -25°F to -30°F.	No damages or losses recorded.
May 12-13, 2023	Flood	N/A	Swollen creeks and streams produced flooding and flash flooding. Numerous hiking trails in Castlewood Canyon State Park were closed as they were underwater and impassable. Three	No damages or losses recorded.

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses
			men in the foothills of Douglas County had to be rescued when their vehicle got stuck in snow along Rampart Range Road in Pike National Forest.	
June 22, 2023	Severe Weather DR-4731-CO	Yes	An EF1 tornado touched down just south of CO-470 in the city of Highlands Ranch. Preliminarily the tornado was on the ground for 6.3 miles. No injuries were reported but over 100 trees were downed. Some window/shingle damage has been noted to both houses and commercial properties. Up to 2.5 inches hail occurred.	Minor damage to roofs and gutters, uprooting of trees and fence damage
January 13-16, 2024	Severe Weather	N/A	A long duration snowfall event occurred resulting in several feet of snow. Total snowfall accumulations across the urban corridor and northeast were light, with storm totals generally less than 6 inches, but the icy conditions did cause some travel impacts. Wind chill temperature dropped to -34°F; the record low of -19°F was tied on the morning of the 16th. Some of the plains locations dropped down to -30°F.	Power outage that was managed through backup generators
June 9, 2024	Severe Weather	N/A	Slow moving thunderstorms produced hail (1.25 inches) and heavy rainfall. There were reports of cars being swamped due to rising waters.	No damages or losses recorded.
July 30 – August 7, 2024	Wildfire	N/A	A fire was contained August 7th after reaching about 579 acres. No structures were lost in the fire. Several firefighters were treated for heat exhaustion. Mandatory evacuations were ordered for the Deer Creek Mesa area and several subdivisions in the area of Ken Caryl.	No damages or losses recorded.

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

10.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Highlands Ranch Water District.

Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions. Highlands Ranch Water District reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Highlands Ranch Water District agreed with the preliminary hazard rankings as identified in Table 10-9.

Table 10-9 shows Highlands Ranch Water District's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 10-9. Hazard Ranking

Hazard	Rank
Dam Failure	Low
Drought	High
Earthquake	Low
Flood	Medium
Geologic Hazards	Medium
Hazardous Materials	Medium
Pandemic	Medium
Severe Weather	High
Wildfire	High

Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction

Critical Facilities

Table 10-10 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 10-10. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Event	0.2% Event		
According to the critical facilities list for this HMP update, there are no critical facilities located in the flood hazard area in the Highlands Ranch Water District.					

Source: Douglas County; CDOT; CDPHE; ESRI; HIFLD; US Energy Information Administration; FEMA

10.6.4 Identified Issues

After a review of Highlands Ranch Water District's hazard event history, hazard rankings, hazard location, and current capabilities, Highlands Ranch Water District identified the following vulnerabilities within the community:

- The Highlands Ranch Water District Operations collaborates with the Water Resources Department to expand water aquifer storage and recovery (ASR) production into non-tributary wells to increase seasonal storage. This action needs to be an ongoing procedure for the District.
- Inspections of assets, including major pipelines, pump stations, reservoirs and groundwater wells can assist in identifying risks. Those at risk of exposure or loss of structural support may be reinforced with concrete caps, cutoff walls across the channel, and installation of 18"-24" fractured stone (rip-rap) across and around the element to protect from erosion. The district needs to conduct inspections on these assets.
- All district well sites that are not located in developed neighborhoods are at risk of serious damage or being disabled by wildfires that can occur almost any year. Each well site should have mowing operations to reduce fuel loads in the immediate vicinity of the well site. The operational area of the well site that contains electrical cabinets, controls, and wellhead assets are surrounded by large gravel to eliminate the growth of grasses and shrubs which can provide fuel for wildfires.
- The district along with South Metro Fire Rescue and various state, federal, NGO, and private stakeholders, and will work with the Partnership to assess impact from wildfire; identify opportunities to maintain continuity of operations; and develop a comprehensive mitigation strategy to identify projects that will reduce wildfire risk, increase natural resource protection, encourage the incorporation of wildfire management principles into local planning, land use and building codes, and promote public awareness of wildfire risk. The district needs to continue partnership with these organizations to mitigate critical facilities from future wildfire impacts.
- Highlands Ranch Water District does not have a Continuity of Operations plan in place for staffing in case of an emergency.

10.7 MITIGATION STRATEGY AND PRIORITIZATION

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

10.7.1 Past Mitigation Action Status

Table 10-11 indicates progress on the Highlands Ranch Water District's mitigation strategy identified in the 2021 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

10.7.2 Additional Mitigation Efforts

In addition to the mitigation actions completed in Table 10-11, Highlands Ranch Water District identified the following mitigation efforts completed since the last HMP:

- The water treatment plant is currently equipped with a backup diesel generator, diesel pumps and manual transfer switches for hookup of portable generators to enable district facility to remain operational in the event of a power outage.
- The district lift stations and pump stations are equipped with backup diesel generators or manual transfer switches to allow hookup of portable diesel generators to enable district facilities to remain operational in the event of a power outage.
- The district performs aquifer storage and recovery when excess water is available.
- All critical facilities have an emergency backup generator or manual transfer switch for hookup of a portable generator.

Since the adoption of the County's first HMP, Highlands Ranch Water District has made significant progress in mitigation in the following areas:

- Continuity of operations
- Water management

DRAFT

Table 10-11. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
Action CWS1	Upgrade Wells	Wildfire	Operations	Upgrade wells to allow emergency generator hook up after fire event	1. No Progress 2. Focus has been on upgrades to the WTP to increase redundancy and resiliency of the treatment and distribution of water	1. Discontinue 2. N/A 3. This has been further evaluated and determined to have minimal to no overall benefit
Action CWS2	Fire Hydrants	Wildfire	Operations, Public Works	Install additional fire hydrants and open water storage vessels (ponds and stock tanks) to aid firefighting	1. No Progress 2. This has been further evaluated and determined to have minimal to no overall benefit	1. Discontinue 2. N/A 3. This has been further evaluated and determined to have minimal to no overall benefit
Action CWS3	Water Storage	Drought, Wildfire	Operations, Water Resources	Expand water aquifer storage and recovery production into non-tributary wells to increase seasonal storage	1. In Progress 2. We perform ASR when excess water is available	1. Include 2. We will continue ASR based on availability of water 3. N/A
Action CWS4	Generators	All Hazards	Public Works, Operations	Provide emergency power generators at all key facilities such as pump stations, lift stations, administration buildings	1. Complete 2. All critical facilities have an emergency backup generator or MTS for hookup of a portable generator	1. Discontinue 2. N/A 3. Completed action.
Action CWS5	Water and Wastewater Utilities	Flood, Severe Weather, Geological Hazards	Operations and Public Works	An element of normal operations of water and wastewater utilities is to perform regularly scheduled inspections and preventative maintenance activities of our assets, including major pipelines, pump stations, reservoirs and groundwater wells. As a result of these inspections, the following measures are taken as risks are identified. Pipelines, manholes	1. In Progress 2. We will conduct inspections	1. Include 2. We will continue with ongoing inspections on a regular basis 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				and vaults that are within the 100 year floodplain are inspected annually or after a major storm event. Those at risk of exposure or loss of structural support are reinforced with concrete caps, cutoff walls across the channel, and installation of 18"-24" fractured stone (rip-rap) across and around the element to protect from erosion.		
Action CWS6	Water and Wastewater Utilities	Flood, Severe Weather, Geological Hazards	Operations and Public Works	An element of normal operations of water and wastewater utilities is to perform regularly scheduled inspections and preventative maintenance activities of our assets, including major pipelines, pump stations, reservoirs and groundwater wells. As a result of these inspections, the following measures are taken as risks are identified. The Joe Blake Water Treatment Plant has a 4 acre raw water storage forebay that includes an earthen embankment that is designated as a jurisdictional dam by the State Engineer. Recent inspections of this project have determined that there is a pipeline and some utility conduits that are within the embankment zone and could compromise the integrity of the dam. Work to remove this risk	1. Complete 2. The water line has been abandoned.	1. Discontinue 2. N/A 3. Completed action

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				from the embankment zone and install replacement lines is under design and a contract to make these changes is anticipated in 2022.		
Action CWS7	Wildfire Fuel Mitigation	Wildfire	Operations and Public Works	All District well sites that are not located in developed neighborhoods are at risk of serious damage or being disabled by wildfires that can occur almost any year. Each well site has monthly mowing operations to reduce fuel loads in the immediate vicinity of the well site. The operational area of the well site that contains electrical cabinets, controls, and wellhead assets are surrounded by large gravel to eliminate the growth of grasses and shrubs which can provide fuel for a wildfire.	1. In Progress 2. We will perform mowing	1. Include 2. We will continue to perform mowing of Backcountry well sites 3. N/A
Action CWS8	Intent to join the Douglas County Wildfire Partnership (DCWP)	Wildfire	Operations and Public Works	Along with South Metro Fire Rescue and various state, federal, NGO, and private stakeholders, and will work with the Partnership to assess impact from wildfire; identify opportunities to maintain continuity of operations; and develop a comprehensive mitigation strategy to identify projects that will reduce wildfire risk, increase natural resource protection, encourage the	1. In Progress 2. We will collaborate with local partners	1. Include 2. Continued collaboration with local partners in hazard mitigation efforts for critical facilities 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				incorporation of wildfire management principles into local planning, land use and building codes, and promote public awareness of wildfire risk.		

10.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Highlands Ranch Water District participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 “Selecting Appropriate Mitigation Measures for Floodprone Structures” (March 2007)
- FEMA “Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards” (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Highlands Ranch Water District would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in Highlands Ranch Water District priorities.

Table 10-12 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 12 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 10-13 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.

Table 10-12. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure	X									X
Drought	X				X					X
Earthquake	X									X
Flood	X				X					X
Geologic Hazards	X				X					X
Hazardous Materials	X									X
Pandemic	X									X
Severe Weather	X				X					X
Wildfire	X		X	X	X			X		X

Local Plans and Regulations (LPR)—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

Structure and Infrastructure Project (SIP)—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

Natural Systems Protection (NSP)—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

Education and Awareness Programs (EAP)—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

Preventative Measures (PR)—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

Property Protection (PP)—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

Public Information (PI)—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

Natural Resource Protection (NR)—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

Structural Flood Control Projects (SP)—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

Emergency Services (ES)—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities

Table 10-13. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria													High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Administrative	Hazards of Concern	Timeline	Community Lifelines	Other Local Objectives	Total	
2026-Highlands Ranch WD-01	Water Storage	1	0	1	1	1	1	0	1	1	1	1	1	10	High
2026-Highlands Ranch WD-02	Water and Wastewater Utilities	1	1	1	1	1	1	1	1	1	1	1	1	12	High
2026-Highlands Ranch WD-03	Wildfire Fuel Mitigation	1	1	1	1	1	1	1	0	1	1	1	1	11	High
2026-Highlands Ranch WD-04	Intent to join the Douglas County Wildfire Partnership (DCWP)	1	1	1	1	1	1	0	1	1	1	1	1	11	High
2026-Highlands Ranch WD-05	Develop a Continuity of Operations Plan (COOP)	1	1	1	1	1	1	0	1	1	1	1	1	11	High

Note: Volume I, Section 19 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-12).

Action 2026-Highlands Ranch WD-01. Water Storage

Lead Agency:	District Operations		
Supporting Agencies:	Water Resources Department		
Hazard(s) of Concern:	☐ Dam Failure ☒ Drought ☐ Earthquake ☐ Flood ☐ Geologic Hazards	☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☒ Wildfire	
Description of the Problem:	The Highlands Ranch Water District Operations collaborates with the Water Resources Department to expand water aquifer storage and recovery (ASR) production into non-tributary wells to increase seasonal storage. This action needs to be an ongoing procedure for the District.		
Description of the Solution:	The district will work with the Water Resources Department to provide aquifer storage and recovery based on the availability of water. The district performs aquifer storage and recovery when excess water is available.		
Estimated Cost:	Low		
Potential Funding Sources:	District funds		
Implementation Timeline:	Ongoing		
Goals Met:	6, 7		
Benefits:	Aquifer Storage and Recovery (ASR) stores excess surface water in underground aquifers for later recovery and use. ASR is used to help keep rainwater within an area, especially in urban areas where rainwater cannot percolate the soil or cannot percolate quickly.		
Impact on Future Development:	Increasing non-tributary well storage capacity supports sustainable growth and future development by securing long-term water resources.		
Impact on Critical Facilities/Lifelines:	Enhanced aquifer storage protects critical water infrastructure from supply disruptions, ensuring operational continuity during drought or emergency conditions.		
Impact on Capabilities:	Collaboration between Operations and Water Resources strengthens the district's ability to manage seasonal water demands and improve overall resource resilience.		
Mitigation Category:	☒ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)	
CRS Category:	☒ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)	
Priority:	☒ High	☐ Medium	☐ Low
Alternatives:	No Action	Current problem exists	
	Utilize previous ASR	May expire in accuracy.	
	Rely on County to conduct ASR	Does not have the staff time to take on this responsibility.	

Action 2026-Highlands Ranch WD-02. Water and Wastewater Utilities

Lead Agency:	District Operations		
Supporting Agencies:	Public Works Department		
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☒ Flood ☒ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☒ Severe Weather ☐ Wildfire		
Description of the Problem:	Inspections of assets, including major pipelines, pump stations, reservoirs and groundwater wells can assist in identifying risks. Those at risk of exposure or loss of structural support may be reinforced with concrete caps, cutoff walls across the channel, and installation of 18"-24" fractured stone (rip-rap) across and around the element to protect from erosion. The district needs to conduct inspections on these assets.		
Description of the Solution:	The Highlands Ranch Water District will work with the Public Works Department to conduct inspections.		
Estimated Cost:	Low		
Potential Funding Sources:	District funds		
Implementation Timeline:	Ongoing		
Goals Met:	6, 7		
Benefits:	Performing inspections and maintaining assets can assist in identifying deficiencies to equipment, facilities, and infrastructure. Mitigating these deficiencies can reduce the risk of future damages or losses of assets, assisting in the continuity of operations.		
Impact on Future Development:	Proactive maintenance and flood protection measures strengthen infrastructure resilience, supporting sustainable growth and future development in flood-prone areas.		
Impact on Critical Facilities/Lifelines:	Reinforcing pipelines, manholes, and vaults within the 100-year floodplain protects critical water and wastewater facilities from erosion and structural failure during major storms.		
Impact on Capabilities:	Continuing regular inspections and implementing protective measures enhances the district's ability to identify and mitigate risks, improving overall operational reliability and emergency preparedness.		
Mitigation Category:	☒ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)		
CRS Category:	☒ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)		
Priority:	☒ High	☐ Medium	☐ Low
Alternatives:	No Action	Current problem exists	
	Utilize previous inspection records	May not be current or accurate	
	Remove wastewater utilities	Not an option, loss of critical services.	

Action 2026-Highlands Ranch WD-03. Wildfire Fuel Mitigation

Lead Agency:	District Operations		
Supporting Agencies:	Public Works Department		
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☐ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☒ Wildfire		
Description of the Problem:	District well sites that are not located in developed neighborhoods are at risk of serious damage or being disabled by wildfires that can occur almost any year. Each well site should have mowing operations to reduce fuel loads in the immediate vicinity of the well site. The operational area of the well site that contains electrical cabinets, controls, and wellhead assets are surrounded by large gravel to eliminate the growth of grasses and shrubs which can provide fuel for wildfires.		
Description of the Solution:	The Highlands Ranch Water District will continue to work with the Public Works Department to perform routine mowing of the Backcountry well sites to mitigate potential wildfire events.		
Estimated Cost:	Low		
Potential Funding Sources:	District funds		
Implementation Timeline:	Ongoing		
Goals Met:	4, 5, 6		
Benefits:	The removal of fire fuel can drastically reduce the risk of wildfires. Removing the fire fuel in risk areas can further protect persons and property from potential impacts.		
Impact on Future Development:	Proactive wildfire mitigation supports safe and sustainable future development by reducing infrastructure vulnerability and maintaining reliable water supply systems.		
Impact on Critical Facilities/Lifelines:	Maintaining defensible space and gravel barriers around Backcountry well sites protects critical water infrastructure from wildfire damage, preserving operational continuity.		
Impact on Capabilities:	Collaboration with the Public Works Department strengthens the district's wildfire mitigation capabilities, improving preparedness and reducing risk to essential assets.		
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP) ☒ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)		
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI) ☒ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)		
Priority:	☒ High	☐ Medium	☐ Low
Alternatives:	No Action	Current problem exists	
	Rely on County to mitigate	County may not have the resources to handle on own.	
	Rely on State to mitigate	State may not have the staff time to handle on own.	

Action 2026-Highlands Ranch WD-04. Join the Douglas County Wildfire Action Collaborative (DCWAC)

Lead Agency:	District Operations								
Supporting Agencies:	Public Works Department, South Metro Fire Rescue and various state, federal, NGO, and private stakeholders								
Hazard(s) of Concern:	☐ Dam Failure ☐ Drought ☐ Earthquake ☐ Flood ☐ Geologic Hazards ☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☒ Wildfire								
Description of the Problem:	The district along with South Metro Fire Rescue and various state, federal, NGO, and private stakeholders, and will work with the Partnership to assess impact from wildfire; identify opportunities to maintain continuity of operations; and develop a comprehensive mitigation strategy to identify projects that will reduce wildfire risk, increase natural resource protection, encourage the incorporation of wildfire management principles into local planning, land use and building codes, and promote public awareness of wildfire risk. The district needs to continue partnership with these organizations to mitigate critical facilities from future wildfire impacts.								
Description of the Solution:	The Highlands Ranch Water District will work in partnership with the Public Works Department, South Metro Fire Rescue and various state, federal, NGO, and private stakeholders to mitigate critical facilities from wildfires.								
Estimated Cost:	Low								
Potential Funding Sources:	District funds								
Implementation Timeline:	Ongoing								
Goals Met:	4, 5, 6								
Benefits:	Being a partner of the Douglas County Wildfire Action Collaborative provides a collaborative environment to enhance community protections through planning and group efforts.								
Impact on Future Development:	Integrating wildfire management principles into local planning, land use, and building codes promotes safer, more resilient development and long-term community sustainability.								
Impact on Critical Facilities/Lifelines:	Assessing wildfire impacts and implementing mitigation measures safeguards critical water and sanitation infrastructure, reducing the likelihood of operational disruptions during emergencies.								
Impact on Capabilities:	Collaboration with multiple stakeholders enhances the district's ability to plan, coordinate, and execute wildfire risk reduction strategies, strengthening overall emergency preparedness.								
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP) ☐ Natural Systems Protection (NSP) ☒ Education and Awareness Programs (EAP)								
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI) ☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)								
Priority:	☒ High	☐ Medium	☐ Low						
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Rely on County resources</td><td>Will be helpful but may not provide all resources needed to mitigate wildfire risk.</td></tr> <tr> <td>Rely on state and federal resources</td><td>Will be helpful but may not provide all resources needed to mitigate wildfire risk.</td></tr> </tbody> </table>			No Action	Current problem exists	Rely on County resources	Will be helpful but may not provide all resources needed to mitigate wildfire risk.	Rely on state and federal resources	Will be helpful but may not provide all resources needed to mitigate wildfire risk.
No Action	Current problem exists								
Rely on County resources	Will be helpful but may not provide all resources needed to mitigate wildfire risk.								
Rely on state and federal resources	Will be helpful but may not provide all resources needed to mitigate wildfire risk.								

Action 2026-Highlands Ranch WD-05. Develop a Continuity of Operations Plan (COOP)

Lead Agency:	District Operations		
Supporting Agencies:	Public Works Department		
Hazard(s) of Concern:	☒ Dam Failure ☒ Drought ☒ Earthquake ☒ Flood ☒ Geologic Hazards	☒ Hazardous Materials ☒ Pandemic ☒ Severe Weather ☒ Wildfire	
Description of the Problem:	Highlands Ranch Water District does not have a Continuity of Operations plan in place for staffing in case of an emergency.		
Description of the Solution:	Highlands Ranch Water District will work to secure a contractor to complete a Continuity of Operations plan. This plan will help ensure operations are able to continue as normal in the event of an emergency.		
Estimated Cost:	Medium		
Potential Funding Sources:	District funds		
Implementation Timeline:	Short-term (1-2 years)		
Goals Met:	4, 5, 6, 7		
Benefits:	The Continuity of Operations Plan (COOP) will ensure that essential functions of the District continue during and after a disruption caused by emergencies, whether manmade, natural, or technological.		
Impact on Future Development:	Future development is protected by embedding resilience into operations, helping new infrastructure and services withstand and recover from disasters more effectively.		
Impact on Critical Facilities/Lifelines:	Critical facilities are safeguarded through detailed operational planning that prioritizes their functionality and rapid recovery in the face of disruptions.		
Impact on Capabilities:	Capabilities are enhanced by establishing a comprehensive COOP that strengthens interdepartmental coordination, emergency preparedness, and long-term operational resilience.		
Mitigation Category	☒ Local Plans and Regulations (LPR) ☐ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)	
CRS Category	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)	
Priority	☒ High	☐ Medium	☐ Low
Alternatives	No Action	Current problem exists	
	Utilize neighboring jurisdiction COOP	Not locally specific to the District staff.	
	Rely on federal resources for continuity of operations	Not always reliable or accessible to the area.	

11. PARKER WATER AND SANITATION DISTRICT

This jurisdictional annex to the Douglas County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Parker Water and Sanitation District with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of the Parker Water and Sanitation District, describes who participated in the planning process, assesses the District's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

11.1 HAZARD MITIGATION PLANNING TEAM

The Parker Water and Sanitation District identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many District departments. The Safety Coordinator represented the district on the Douglas County HMP Local Planning Committee and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 11-1 summarizes the Parker Water and Sanitation District officials who participated in the development of the annex and in what capacity. Additional documentation of the District's planning activities through Local Planning Committee meetings is included in Volume I.

Table 11-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Brad Johnson, Safety Coordinator Address: 13939 Ancestry Dr, Parker, CO 80134 Phone Number: 720-842-4270 Email: bjohnson@pwsd.org	Name/Title: James Roche, Director of Operations Address: 13939 Ancestry Dr, Parker, CO 80134 Phone Number: 303-841-2058 Email: jroche@pwsd.org
National Flood Insurance Program Floodplain Administrator This jurisdiction does not participate in the National Flood Insurance Program	
Additional Contributors Name/Title: Brad Johnson, Safety Coordinator Method of Participation: Attended meetings; provided information for annex development.	

11.2 COMMUNITY PROFILE

11.2.1 Location

The Parker Water and Sanitation District provides water and sewer service to the Town of Parker and unincorporated areas. The District's designated service area expanded throughout the years to include Lone Tree, Castle Pines and Parker. As of August 28, 2020, the District serves 17,485 water connections and 16,874 sewer connections. The district serves a population of 56,000. Its service area covers an area of 43.5 square miles.

11.2.2 History

Established in 1962, Parker Water and Sanitation District is a water and wastewater utility in Parker, Colorado, in the southeastern Denver-Metro area. Since operations began more than 60 years ago, the population of Parker and its surrounding area has grown exponentially. Parker Water and Sanitation District currently serves approximately 21,975 accounts and anticipates serving 35,000 by 2040 when build-out is reached.

11.2.3 Governing Body

Parker Water and Sanitation District is governed by a five-person elected Board of Directors. These individuals live in the District and volunteer time and talent to address a variety of water-related concerns.

Development of this annex was carried out by the members of the local mitigation planning team, whose members are listed in Table 11-1.

11.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

The Parker Water and Sanitation District performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day local government operations. As part of the hazard mitigation analysis, planning and /policy documents were reviewed and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. Development of an updated mitigation strategy provided an opportunity for the Parker Water and Sanitation District to identify opportunities for integrating mitigation concepts into ongoing District procedures.

11.3.1 Planning and Regulatory Capability and Integration

Table 11-2 summarizes the planning and regulatory tools that are available to the Parker Water and Sanitation District.

Table 11-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
CODES, ORDINANCES, & REGULATIONS				
Building Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Zoning/Land Use Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Subdivision Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Site Plan Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Stormwater Management Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Post-Disaster Recovery/ Reconstruction Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Real Estate Disclosure Requirements	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Growth Management	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Environmental Protection Ordinance(s)	Yes	Industrial Wastewater Control Regulations, 2025 PWSD Rules & Regulations	Local	Industrial Pretreatment & Collections
How has or will this be integrated with the HMP and how does this reduce risk?				
The Industrial Wastewater Control Regulations set uniform requirements for all industrial users discharging to the Publicly Owned Treatment Works (POTW) and enables the District to comply with all applicable State and federal laws including the Clean Water Act (33 U.S.C. 1251 et seq.) and the applicable General Pretreatment Regulations for Existing and New Sources of Pollution (40 CFR Part 403).				
The Rules and Regulations set forth uniform requirements for Customers of the Parker Water and Sanitation District and enable the District to comply with all applicable State and Federal Laws, including the Clean Water Act (33 United States Code Section 1251, et seq.) and the Safe Drinking Water Act (SDWA). The objectives of these Rules and Regulations include: To prevent the introduction of pollutants into the sewer system that will interfere with its operation; To prevent the introduction of pollutants into the sewer system that will pass through the sewer system, inadequately treated, into receiving waters, or otherwise be incompatible with the sewer system; To protect both sewer system personnel who may be affected by wastewater and sludge in the course of their employment and the general public; To provide a safe water supply in accordance with State and Federal Regulations; To protect the water supply, distribution, storage and pumping facilities from contamination or tampering.				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Flood Damage Prevention Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Wellhead Protection	Yes	Source Water Assessment & Protection (SWAP)	State	CDPHE
How has or will this be integrated with the HMP and how does this reduce risk? The Colorado Department of Public Health and Environment (CDPHE) has completed a source water assessment for PARKER WSD as required by the 1996 Safe Drinking Water Act amendments and in accordance with Colorado's Source Water Assessment and Protection (SWAP) program. The purpose of this assessment is to analyze the potential susceptibility of each public drinking water source to contamination, and to supply pertinent information so that decision-makers voluntarily can develop and implement appropriate preventive measures to protect these water sources.				
Emergency Management Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Change Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other: PWSD Rules and Regulations	Yes	PWSD Rules and Regulations	Local	Parker Water and Sanitation District
How has or will this be integrated with the HMP and how does this reduce risk? Annual Review				
PLANNING DOCUMENTS				
General/Comprehensive Plan	Yes	2024 PWSD Master Plan and Facilities Master Plan	Local	Parker Water & Sanitation District
How has or will this be integrated with the HMP and how does this reduce risk? The intent of 2024 Water and Wastewater Master Plan Update (2024 Master Plan) to is provide updated hydraulic models calibrated to current flows and demands to evaluate the distribution and collection systems, construct a new hydraulic model of the water reuse system, and use it to evaluate the system, re-evaluate capital improvement timing based on current data, and develop dynamic planning tools that PWSD can use to manage their capital improvement plan (CIP).				
Capital Improvement Plan	Yes	2023 PWSD Ten-Year Capital Plan	Local	Parker Water & Sanitation District
How has or will this be integrated with the HMP and how does this reduce risk? The Capital Improvement Plan (CIP) serves as a strategic tool to manage and allocate capital investments effectively. Its primary purposes include prioritizing projects, cost savings, sustainable development, and financial responsibility. A well-developed CIP is critical for sound fiscal and capital planning, ensuring that public funds are used efficiently and effectively.				
Disaster Debris Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Floodplain Management or Watershed Plan	Yes	Watershed Plan, 2000	Local	PWSD Engineering
How has or will this be integrated with the HMP and how does this reduce risk? The primary objectives of the Cherry Creek Basin Water Quality Management Master Plan (2000 Watershed Plan) are to: develop a watershed approach for protection of the Reservoir, surface streams, and the alluvial aquifer; re-evaluate the phosphorus standard, the chlorophyll a goal, and the allowable annual loading to the Reservoir based on water quality monitoring and modeling; re-evaluate the Cherry Creek TMDL; and I Identify and prioritize activities and projects necessary to achieve water quality objectives.				
Stormwater Management Plan	Yes	PWSD Water and Wastewater Master Plan, 2020	Local	Parker Water & Sanitation District
How has or will this be integrated with the HMP and how does this reduce risk? The PWSD Water and Wastewater Master Plan, 2020, outlines the strategic vision and operational framework for the district's water and wastewater infrastructure. The plan includes a comprehensive assessment of the current system's performance, future demand projections, and the necessary improvements to ensure the sustainability and efficiency of the water and wastewater services. The plan also addresses the integration of water reuse and wastewater treatment facilities, as well as the development of new infrastructure to meet the growing demands of the community.				
Open Space Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Urban Water Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Habitat Conservation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Economic Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Wildfire Protection Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Forest Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Transportation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Agriculture Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Climate Action/ Resilience/Sustainability Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Tourism Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Business/ Downtown Development Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Other How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
RESPONSE/RECOVERY PLANNING				
Emergency Operations Plan How has or will this be integrated with the HMP and how does this reduce risk? This document is designed to coordinate Parker Water and Sanitation District's response to an emergency. The Emergency Response Plan describes procedures meant to organize quick and effective action, minimize the effects of an incident, and ensure the health and safety of district personnel. This plan addresses the District's chief concerns: public health, employee safety, and environmental responsibility. As an integral component of the overall safety program, the Emergency Response Plan primarily safeguards Parker Water and Sanitation District's property and personnel.	Yes	PWSD Emergency Response Plan and PWSD Emergency Action Plan – Rueter Hess Reservoir	Local	Parker Water and Sanitation District
Continuity of Operations Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Substantial Damage Response Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Threat and Hazard Identification and Risk Assessment How has or will this be integrated with the HMP and how does this reduce risk? The primary purpose of this Risk and Resilience Assessment is to secure the long-term resilience of the District and to meet the requirements of the America's Water Infrastructure Act of 2018 compliance requirements. The District has identified and characterized both asset-specific and system-wide vulnerabilities and threats and quantified the consequences of disruption. The Assessment assists the District to navigate the many options in addressing and mitigating risk.	Yes	Risk and Resilience Assessment	Local	Parker Water & Sanitation District
Post-Disaster Recovery Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Public Health Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

11.3.2 Development and Permitting Capability

Table 11-3 summarizes the capabilities of the Parker Water and Sanitation District to oversee and track development.

Table 11-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits?	N/A	-
- If you issue development permits, what department is responsible? - If you do not issue development permits, what is your process for tracking new development?	N/A	-
Are permits tracked by hazard area? (For example, floodplain development permits.)	N/A	-
Do you have a buildable land inventory?	N/A	-
If you have a buildable land inventory, please describe	N/A	-
Describe the level of buildout in your jurisdiction.	N/A	-

11.3.3 Administrative and Technical Capability

Table 11-4 summarizes potential staff and personnel resources available to the Parker Water and Sanitation District and their current responsibilities that contribute to hazard mitigation.

Table 11-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
ADMINISTRATIVE CAPABILITY		
Planning Board	No	-
Zoning Board of Adjustment	No	-
Planning Department	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Public Works/Highway Department	No	-
Construction/Building/Code Enforcement Department	No	-
Emergency Management/Public Safety Department	No	-
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	District Services Department
Mutual aid agreements	Yes	COWARN – Castle Rock – Meridian – Stonegate
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	-
Other	No	-
TECHNICAL/STAFFING CAPABILITY		
Planners or engineers with knowledge of land development and land management practices	Yes	Engineering department (Engineers with knowledge in planning, engineering technicians who perform development review)
Engineers or professionals trained in building or infrastructure construction practices	Yes	Engineering department (Construction inspectors)
Planners or engineers with an understanding of natural hazards	Yes	Engineering department (Engineers with knowledge of dam safety)
Staff with expertise or training in benefit/cost analysis	Yes	Finance department
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazus applications	Yes	Engineering department (GIS coordinator, GIS analyst)
Staff that work with socially vulnerable populations or underserved communities	No	-
Environmental scientists familiar with natural hazards	No	-
Surveyors	No	-
Emergency manager	Yes	Safety Coordinator
Grant writers	No	-
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	Yes	Water quality and analysis Laboratory

11.3.4 Fiscal Capability

Table 11-5 summarizes financial resources available to the Parker Water and Sanitation District.

Table 11-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	No
Capital improvement project funding	Yes – the current HMP is incorporated in to PWSD’s 10-year Capital Improvement Plan
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas, or electric service	Yes – for water; stormwater is done through the Town of Parker
Impact fees for homebuyers or developers of new development/homes	Yes
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	Yes
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	No
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	Yes - the District has the ability to take advantage of grants through FEMA and The Colorado Special Districts Fund

11.3.5 Education and Outreach Capability

Table 11-6 summarizes the education and outreach resources available to Parker Water and Sanitation District.

Table 11-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Media and Communications
Personnel skilled or trained in website development	Yes	Media and Communications
Hazard mitigation information available on your website	No	-
Social media for hazard mitigation education and outreach	Yes	Social media is used as a tool to communicate with the public about potential hazards on an as-needed basis. Our communications channels include X, Facebook and Nextdoor.
Citizen boards or commissions that address issues related to hazard mitigation	No	-

Outreach Resources	Available? (Yes/No)	Comment
Warning systems for hazard events	Yes	social media and reverse 911 if an event requires public notification
Natural disaster/safety programs in place for schools	No	-
Organizations that conduct outreach to socially vulnerable populations and underserved populations	No	-
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	Reverse 911 is available as needed.

11.3.6 Community Classifications

Table 11-7 summarizes classifications for community programs available to Parker Water and Sanitation District.

Table 11-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable

11.4 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). According to the FEMA Community Status Book Report, Parker Water and Sanitation District does not participate in the NFIP.

11.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Parker Water and Sanitation District does not issue permits. New infrastructure or building permitting or construction is performed by Douglas County and the towns and cities within it.

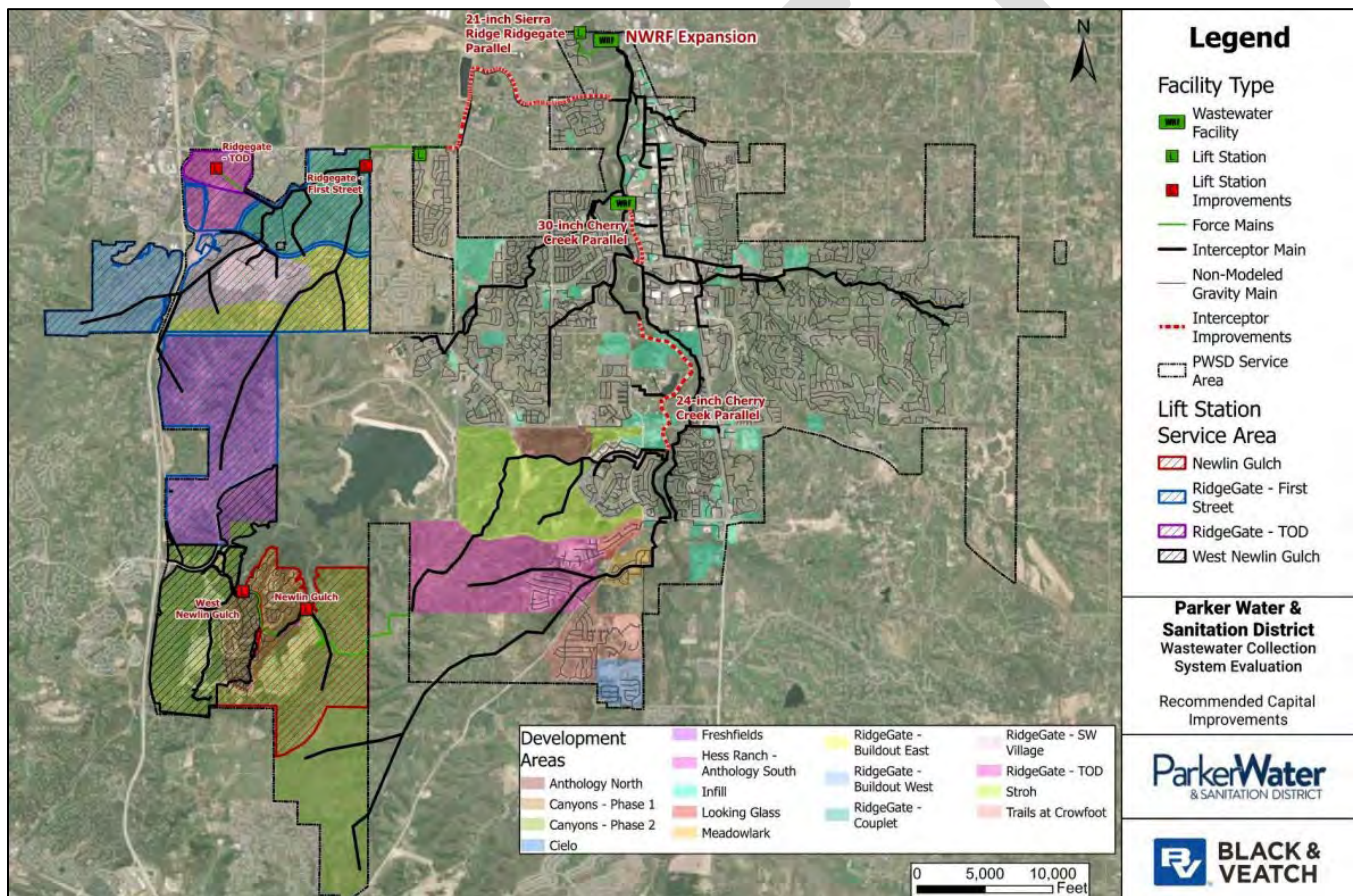
11.6 JURISDICTIONAL RISK ASSESSMENT

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of the District's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

11.6.1 Hazard Area

The hazard profiles in Chapters 6 to 14 in Volume I provide detailed information regarding vulnerability to the identified hazards. The service area for the Parker Water and Sanitation District primarily covers the Town of Parker, portions of the Cities of Castle Pines and Lone Tree, and areas of Unincorporated Douglas County, as shown in Figure 11-1. Refer to Chapters 2, 3, 6, and 7 in Volume II to view the hazard area extent and location maps for the Unincorporated Douglas County, Cities of Castle Pines and Lone Tree, and Town of Parker.

Figure 11-1. Parker Water and Sanitation District Service Area



Source: (Parker Water and Sanitation District 2024)

11.6.2 Hazard Event History

The history of natural and non-natural hazard events in Parker Water and Sanitation District is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its jurisdictions. Table 11-8 provides details on loss and damage in Parker Water and Sanitation District during hazard events since the last hazard mitigation plan update.

Table 11-8. Hazard Event History in Parker Water and Sanitation District

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses
September 6, 2019	Severe Weather	N/A	Severe thunderstorms produced a combination of large hail (1.25 inches) and heavy rain. A brief tornado touched down in an open field near Highlands Ranch. A blast of lightning triggered a house fire in Douglas County, causing extensive damage.	No losses or damage recorded by the District.
October 29-30, 2019	Severe Weather	N/A	A winter storm brought record breaking temperatures and up to a foot of snow. Numerous schools were closed due to heavy snow and hazardous road conditions. Storm totals included: 10 inches near Parker; 7.5 inches near Castle Pine.	No losses or damage recorded by the District.
January 20, 2020 - May 11, 2023	Pandemic EM-3436-CO, DR-4498-CO	Yes	During the COVID-19 pandemic disaster declaration, there were a reported 102,146 cases of COVID-19 and 527 COVID-19 related deaths in Douglas County.	No losses or damage recorded by the District.
June 6, 2020	Windstorm	N/A	Storm and high winds caused power outage.	Water hammer, piping, and equipment damage due to power outage from storm.
March 13-14, 2021	Severe Weather	N/A	Strong winds compounded with heavy snowfall made the roadways impassable in the afternoon and evening. Peak wind gusts to 48 mph produced extensive drifting snow. Drifts ranged from 3 to 6 feet deep. The heavy wet snow caused extensive tree damage and produced power outages.	No losses or damage recorded by the District.
November - December 2021	Drought	N/A	Portions of the County were in a severe to extreme drought classification (D2/D3) through the months of November and December.	No losses or damage recorded by the District.

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses
February 23, 2023	Severe Weather	N/A	Bands of moderate to heavy snow showers coupled with strong winds produced poor visibilities and hazardous driving conditions. During the morning hours on the 23rd, wind chill temperatures ranged from -25°F to -30°F.	No losses or damage recorded by the District.
May 12-13, 2023	Flood	N/A	Swollen creeks and streams produced flooding and flash flooding. Numerous hiking trails in Castlewood Canyon State Park were closed as they were underwater and impassable. Three men in the foothills of Douglas County had to be rescued when their vehicle got stuck in snow along Rampart Range Road in Pike National Forest.	No losses or damage recorded by the District.
June 22, 2023	Severe Weather DR-4731-CO	Yes	An EF1 tornado touched down just south of CO-470 in the city of Highlands Ranch. Preliminarily the tornado was on the ground for 6.3 miles. No injuries were reported but over 100 trees were downed. Some window/shingle damage has been noted to both houses and commercial properties. Up to 2.5 inches hail occurred.	No losses or damage recorded by the District.
January 13-16, 2024	Severe Weather	N/A	A long duration snowfall event occurred resulting in several feet of snow. Total snowfall accumulations across the urban corridor and northeast were light, with storm totals generally less than 6 inches, but the icy conditions did cause some travel impacts. Wind chill temperature dropped to -34°F; the record low of -19°F was tied on the morning of the 16th. Some of the plains locations dropped down to -30°F.	Frozen sprinkler burst in Admin lobby causing water damage.
June 9, 2024	Severe Weather	N/A	Slow moving thunderstorms produced hail (1.25 inches) and heavy rainfall. There were reports of cars being swamped due to rising waters.	No losses or damage recorded by the District.
July 30 – August 7, 2024	Wildfire	N/A	A fire was contained August 7th after reaching about 579 acres. No structures were lost in the	No losses or damage recorded by the District.

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses
			fire. Several firefighters were treated for heat exhaustion. Mandatory evacuations were ordered for the Deer Creek Mesa area and several subdivisions in the area of Ken Caryl.	

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

11.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Parker Water and Sanitation District.

Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions. The Parker Water and Sanitation District reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the preliminary hazard ranking, the District noted the following about the hazard rankings as identified in Table 11-9:

- Hazard risk from the Hazardous Materials hazard is negligible as the District's facilities are not exposed to the hazard.
- Hazard risk from the Pandemic hazard is negligible as the Water Sanitation District has SOPs in place for workers.

Table 11-9 shows the Parker Water and Sanitation District final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 11-9. Hazard Ranking

Hazard	Rank
Dam Failure	Low
Drought	High
Earthquake	Low
Flood	Medium
Geologic Hazards	Medium
Hazardous Materials	Negligible
Pandemic	Negligible

Hazard	Rank
Severe Weather	High
Wildfire	High

Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction

Critical Facilities

Table 11-10 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 11-10. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Event	0.2% Event		
Parker Water and Sanitation District	Radio Tower	No	Yes	-	Yes, redundancy measures in place
Parker Water and Sanitation District	Radio Tower	No	Yes	-	Yes, redundancy measures in place
Parker Water and Sanitation District	Radio Tower	No	Yes	-	Yes, redundancy measures in place
Parker Water and Sanitation District	Radio Tower	No	Yes	-	Yes, redundancy measures in place
Parker Water and Sanitation District	Radio Tower	No	Yes	-	Yes, redundancy measures in place
Parker Water and Sanitation District	Radio Tower	No	Yes	-	Yes, redundancy measures in place
Parker Water and Sanitation District	Radio Tower	No	Yes	-	Yes, redundancy measures in place
Parker Water and Sanitation District	Radio Tower	No	Yes	-	Yes, redundancy measures in place
Parker Water and Sanitation District	Radio Tower	No	Yes	-	Yes, redundancy measures in place
Parker Water and Sanitation District	Radio Tower	No	Yes	-	Yes, redundancy measures in place

Source: Douglas County; CDOT; CDPHE; ESRI; HIFLD; US Energy Information Administration; FEMA

11.6.4 Identified Issues

After a review of the Parker Water and Sanitation District hazard event history, hazard rankings, hazard location, and current capabilities, the District identified the following vulnerabilities within the community:

- Canyons and Ridgeway Well Houses need portable generators to mitigate the loss of power causing loss of water production, distribution and treatment.
- Rueter Hess Well House and Canyons Pump Station need portable generators to mitigate the loss of power causing loss of water production, distribution and treatment.

- Regional Pump Station and Reata Well House need portable generators to mitigate the loss of power causing loss of water production, distribution and treatment.
- Parker North and Rowley Downs need portable generators to mitigate the loss of power causing loss of water production, distribution and treatment.
- Parker Ridge and Clarke Farms Well Houses need portable generators to mitigate the loss of power causing loss of water production, distribution and treatment.
- Drought causing water supply loss locally within Parker Water's District.

11.7 MITIGATION STRATEGY AND PRIORITIZATION

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

11.7.1 Past Mitigation Action Status

Table 11-11 indicates progress on the Parker Water and Sanitation District's mitigation strategy identified in the 2021 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

11.7.2 Additional Mitigation Efforts

Parker Water and Sanitation District did not identify any additional mitigation efforts completed.

Table 11-11. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
Action PWS1	Canyons and Ridgeway Well Houses Generators	All hazards	PWSD Engineering, PWSD Maintenance	Install emergency generator connections and power transfer switches in Canyons and Ridgeway Well Houses.	1. In Progress 2. PWSD has completed an Electrical Assessment Engineering Study to identify electrical and power supply resiliency needs and to develop a systematic and prioritized approach for PWSD to implement electrical resiliency and renewable energy projects. The results have been evaluated and budget has been allocated for this project beginning in 2027. Further prioritization and implementation planning is being developed.	1. Included in 2026 HMP 2. PWSD has completed an Electrical Assessment Engineering Study to identify electrical and power supply resiliency needs and to develop a systematic and prioritized approach for PWSD to implement electrical resiliency and renewable energy projects. The results have been evaluated and budget has been allocated for this project beginning in 2027. Further prioritization and implementation planning is being developed to install emergency generator connections and power transfer switches in Canyons and Ridgeway Well Houses.. 3. N/A
Action PWS2	Rueter Hess Well House and Canyons Pump Station Generators	All hazards	PWSD Engineering, PWSD Maintenance	Install generator(s) for backup power at Rueter Hess Well House and Canyons Pump Station.	1. In Progress 2. PWSD has completed an Electrical Assessment Engineering Study to identify electrical and power supply resiliency needs and to develop a systematic and prioritized approach for PWSD to implement electrical resiliency and renewable energy projects. The results have been evaluated and budget has been allocated for this project beginning in 2027. Further prioritization and implementation planning is being developed.	1. Included in 2026 HMP 2. PWSD has completed an Electrical Assessment Engineering Study to identify electrical and power supply resiliency needs and to develop a systematic and prioritized approach for PWSD to implement electrical resiliency and renewable energy projects. The results have been evaluated and budget has been allocated for this project beginning in 2027. Further prioritization and implementation planning is being developed to install generator(s) for

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						backup power at Rueter Hess Well House and Canyons Pump Station.. 3. N/A
Action PWS3	Regional Pump Station and Reata Well House Generator	All hazards	PWSD Engineering, PWSD Maintenance	Install generator(s) for backup power at Regional Pump Station and Reata Well House.	1. In Progress 2. PWSD has completed an Electrical Assessment Engineering Study to identify electrical and power supply resiliency needs and to develop a systematic and prioritized approach for PWSD to implement electrical resiliency and renewable energy projects. The results have been evaluated and budget has been allocated for this project beginning in 2027. Further prioritization and implementation planning is being developed.	1. Included in 2026 HMP 2. PWSD has completed an Electrical Assessment Engineering Study to identify electrical and power supply resiliency needs and to develop a systematic and prioritized approach for PWSD to implement electrical resiliency and renewable energy projects. The results have been evaluated and budget has been allocated for this project beginning in 2027. Further prioritization and implementation planning is being developed to install generator(s) for backup power at Regional Pump Station and Reata Well House.. 3. N/A
Action PWS4	Parker North and Rowley Downs Generators	All hazards	PWSD Engineering, PWSD Maintenance	Install generator(s) for backup power at Parker North and Rowley Downs.	1. In Progress 2. PWSD has completed an Electrical Assessment Engineering Study to identify electrical and power supply resiliency needs and to develop a systematic and prioritized approach for PWSD to implement electrical resiliency and renewable energy projects. The results have been evaluated and budget has been allocated for this project beginning in 2027. Further prioritization and	1. Included in 2026 HMP 2. PWSD has completed an Electrical Assessment Engineering Study to identify electrical and power supply resiliency needs and to develop a systematic and prioritized approach for PWSD to implement electrical resiliency and renewable energy projects. The results have been evaluated and budget has been allocated for this project beginning in 2027. Further prioritization and implementation planning is being developed to install generator(s) for

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
					implementation planning is being developed.	backup power at Parker North and Rowley Downs. 3. N/A
Action PWS5	Parker Ridge and Clarke Farms Well Houses Generators	All hazards	PWSD Engineering, PWSD Maintenance	Install emergency generator connections and power transfer switches in Parker Ridge and Clarke Farms Well Houses.	1. In Progress 2. PWSD has completed an Electrical Assessment Engineering Study to identify electrical and power supply resiliency needs and to develop a systematic and prioritized approach for PWSD to implement electrical resiliency and renewable energy projects. The results have been evaluated, and budget has been allocated for this project beginning in 2027. Further prioritization and implementation planning is being developed.	1. Included in 2026 HMP 2. PWSD has completed an Electrical Assessment Engineering Study to identify electrical and power supply resiliency needs and to develop a systematic and prioritized approach for PWSD to implement electrical resiliency and renewable energy projects. The results have been evaluated, and budget has been allocated for this project beginning in 2027. Further prioritization and implementation planning is being developed. 3. N/A
Action PWS6	Water from Northeastern Colorado to Parker	Drought	PWSD Engineering, Private Engineering TBD	Conduct a feasibility study to determine ways to enable bringing water from Northeastern Colorado to Parker. Once study is complete, PWSD will determine the best solutions and implement those projects.	1. In Progress 2. Feasibility study has been completed. The project is still in the preliminary design phases and is a long-term project with anticipated construction to begin in 2035.	1. Included in 2026 HMP 2. Feasibility study has been completed. The project is still in the preliminary design phases and is a long-term project with anticipated construction to begin in 2035. The district will bring water from Northeastern Colorado to Parker. 3. N/A
Action PWS7	PWSD intends to join the Douglas County Wildfire Partnership (DCWP).	Wildfire	Operations and Public Works	PWSD and various state, federal, NGO, and private stakeholders, and will work with the Partnership to assess impact from wildfire; identify opportunities to maintain continuity of operations; and	1. Complete 2. PWSD is a member of the Douglas County Wildfire Action Collaborative (Formerly called the Douglas County Wildfire Partnership).	1. Not Included in 2026 HMP 2. N/A 3. This is an ongoing capability

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2026 HMP or Discontinue 2. If including action in the 2026 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				develop a comprehensive mitigation strategy to identify projects that will reduce wildfire risk, increase natural resource protection, encourage the incorporation of wildfire management principles into local planning, land use and building codes, and promote public awareness of wildfire risk.		

11.7.3 Proposed Hazard Mitigation Actions for the HMP Update

The Parker Water and Sanitation District participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 “Selecting Appropriate Mitigation Measures for Floodprone Structures” (March 2007)
- FEMA “Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards” (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that the District would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in the District’s priorities.

Table 11-12 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 12 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 11-13 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.

Table 11-12. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure		X								X
Drought		X							X	X
Earthquake		X								X
Flood		X								X
Geologic Hazards		X								X
Hazardous Materials										
Pandemic										
Severe Weather		X								X
Wildfire		X								X

Local Plans and Regulations (LPR)—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

Structure and Infrastructure Project (SIP)—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

Natural Systems Protection (NSP)—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

Education and Awareness Programs (EAP)—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

Preventative Measures (PR)—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

Property Protection (PP)—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

Public Information (PI)—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

Natural Resource Protection (NR)—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

Structural Flood Control Projects (SP)—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

Emergency Services (ES)—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities

Table 11-13. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria													High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Administrative	Hazards of Concern	Timeline	Community Lifelines	Other Local Objectives	Total	
2026-Parker WSD-01	Canyons and Ridgeway Well Houses Generators	1	0	1	1	1	1	0	1	1	1	1	1	10	High
2026-Parker WSD-02	Rueter Hess Well House and Canyons Pump Station Generators	1	0	1	1	1	1	0	1	1	1	1	1	10	High
2026-Parker WSD-03	Regional Pump Station and Reata Well House Generator	1	0	1	1	1	1	0	1	1	1	1	1	10	High
2026-Parker WSD-04	Parker North and Rowley Downs Generators	1	0	1	1	1	1	0	1	1	1	1	1	10	High
2026-Parker WSD-05	Parker Ridge and Clarke Farms Well Houses Generators	1	0	1	1	1	1	0	1	1	1	1	1	10	High
2026-Parker WSD-06	Water from Northeastern Colorado to Parker	1	0	1	1	1	1	1	1	1	1	1	1	11	High

Note: Volume I, Section 19 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-12).

Action 2026-Parker WSD-01. Canyons and Ridgeway Well Houses Generators

Lead Agency:	PWSD Engineering		
Supporting Agencies:	PWSD Maintenance		
Hazard(s) of Concern:	☒ Dam Failure ☒ Drought ☒ Earthquake ☒ Flood ☒ Geologic Hazards	☐ Hazardous Materials ☐ Pandemic ☒ Severe Weather ☒ Wildfire	
Description of the Problem:	Canyons and Ridgeway Well Houses need portable generators to mitigate the loss of power causing loss of water production, distribution and treatment.		
Description of the Solution:	PWSD has completed an Electrical Assessment Engineering Study to identify electrical and power supply resiliency needs and to develop a systematic and prioritized approach for PWSD to implement electrical resiliency and renewable energy projects. The results have been evaluated and budget has been allocated for this project beginning in 2027. Further prioritization and implementation planning is being developed to install emergency generator connections and power transfer switches in Canyons and Ridgeway Well Houses.		
Estimated Cost:	High (approximately \$365,000)		
Potential Funding Sources:	Capital budgeting with PWSD		
Implementation Timeline:	Short-term (1-2 years)		
Goals Met:	4, 7		
Benefits:	This action protects public health and safety and ensures continued operation of critical facilities and their essential functions during a power outage.		
Impact on Future Development:	This action results in protection of a critical facility that could support future development.		
Impact on Critical Facilities/Lifelines:	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.		
Impact on Capabilities:	This action ensures continuity of operations to maintain capabilities.		
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☒ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)	
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)	
Priority:	☒ High	☐ Medium	☐ Low
Alternatives:	No Action	Current problem exists	
	Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.	
	Microgrid	Costly and difficult to implement.	

Action 2026-Parker WSD-02. Rueter Hess Well House and Canyons Pump Station Generators

Lead Agency:	PWSD Engineering								
Supporting Agencies:	PWSD Maintenance								
Hazard(s) of Concern:	☒ Dam Failure ☒ Drought ☒ Earthquake ☒ Flood ☒ Geologic Hazards	☐ Hazardous Materials ☐ Pandemic ☒ Severe Weather ☒ Wildfire							
Description of the Problem:	Rueter Hess Well House and Canyons Pump Station need portable generators to mitigate the loss of power causing loss of water production, distribution and treatment.								
Description of the Solution:	PWSD has completed an Electrical Assessment Engineering Study to identify electrical and power supply resiliency needs and to develop a systematic and prioritized approach for PWSD to implement electrical resiliency and renewable energy projects. The results have been evaluated and budget has been allocated for this project beginning in 2027. Further prioritization and implementation planning is being developed to install generator(s) for backup power at Rueter Hess Well House and Canyons Pump Station.								
Estimated Cost:	High (approximately \$1.2 million)								
Potential Funding Sources:	Capital budgeting with PWSD								
Implementation Timeline:	Short-term (1-2 years)								
Goals Met:	4, 7								
Benefits:	This action protects public health and safety and ensures continued operation of critical facilities and their essential functions during a power outage.								
Impact on Future Development:	This action results in protection of a critical facility that could support future development.								
Impact on Critical Facilities/Lifelines:	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.								
Impact on Capabilities:	This action ensures continuity of operations to maintain capabilities.								
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☒ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)							
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)							
Priority:	☒ High	☐ Medium	☐ Low						
Alternatives:	<table border="1"> <tr> <td>No Action</td><td>Current problem exists</td></tr> <tr> <td>Microgrid</td><td>Costly and difficult to implement.</td></tr> <tr> <td>Solar panels and battery backup</td><td>Solar power is unlikely to be able to provide battery power for extended power failure events.</td></tr> </table>	No Action	Current problem exists	Microgrid	Costly and difficult to implement.	Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.		
No Action	Current problem exists								
Microgrid	Costly and difficult to implement.								
Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.								

Action 2026-Parker WSD-03. Regional Pump Station and Reata Well House Generator

Lead Agency:	PWSD Engineering		
Supporting Agencies:	PWSD Maintenance		
Hazard(s) of Concern:	☒ Dam Failure ☒ Drought ☒ Earthquake ☒ Flood ☒ Geologic Hazards	☐ Hazardous Materials ☐ Pandemic ☒ Severe Weather ☒ Wildfire	
Description of the Problem:	Regional Pump Station and Reata Well House need portable generators to mitigate the loss of power causing loss of water production, distribution and treatment.		
Description of the Solution:	PWSD has completed an Electrical Assessment Engineering Study to identify electrical and power supply resiliency needs and to develop a systematic and prioritized approach for PWSD to implement electrical resiliency and renewable energy projects. The results have been evaluated and budget has been allocated for this project beginning in 2027. Further prioritization and implementation planning is being developed to install generator(s) for backup power at Regional Pump Station and Reata Well House.		
Estimated Cost:	High (approximately \$2.0 million)		
Potential Funding Sources:	Capital budgeting with PWSD		
Implementation Timeline:	Short-term (1-2 years)		
Goals Met:	4, 7		
Benefits:	This action protects public health and safety and ensures continued operation of critical facilities and their essential functions during a power outage.		
Impact on Future Development:	This action results in protection of a critical facility that could support future development.		
Impact on Critical Facilities/Lifelines:	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.		
Impact on Capabilities:	This action ensures continuity of operations to maintain capabilities.		
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☒ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)	
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)	
Priority:	☒ High	☐ Medium	☐ Low
Alternatives:	No Action Microgrid Solar panels and battery backup	Current problem exists Costly and difficult to implement. Solar power is unlikely to be able to provide battery power for extended power failure events.	

Action 2026-Parker WSD-04. Parker North and Rowley Downs Generators

Lead Agency:	PWSD Engineering		
Supporting Agencies:	PWSD Maintenance		
Hazard(s) of Concern:	☒ Dam Failure ☒ Drought ☒ Earthquake ☒ Flood ☒ Geologic Hazards	☐ Hazardous Materials ☐ Pandemic ☒ Severe Weather ☒ Wildfire	
Description of the Problem:	Parker North and Rowley Downs need portable generators to mitigate the loss of power causing loss of water production, distribution and treatment.		
Description of the Solution:	PWSD has completed an Electrical Assessment Engineering Study to identify electrical and power supply resiliency needs and to develop a systematic and prioritized approach for PWSD to implement electrical resiliency and renewable energy projects. The results have been evaluated and budget has been allocated for this project beginning in 2027. Further prioritization and implementation planning is being developed to install generator(s) for backup power at Parker North and Rowley Downs.		
Estimated Cost:	High (approximately \$1.0 million)		
Potential Funding Sources:	Capital budgeting with PWSD		
Implementation Timeline:	Short-term (1-2 years)		
Goals Met:	4, 7		
Benefits:	This action protects public health and safety and ensures continued operation of critical facilities and their essential functions during a power outage.		
Impact on Future Development:	This action results in protection of a critical facility that could support future development.		
Impact on Critical Facilities/Lifelines:	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.		
Impact on Capabilities:	This action ensures continuity of operations to maintain capabilities.		
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☒ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)	
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)	
Priority:	☒ High	☐ Medium	☐ Low
Alternatives:	No Action Microgrid Solar panels and battery backup	Current problem exists Costly and difficult to implement. Solar power is unlikely to be able to provide battery power for extended power failure events.	

Action 2026-Parker WSD-05. Parker Ridge and Clarke Farms Well Houses Generators

Lead Agency:	PWSD Engineering								
Supporting Agencies:	PWSD Maintenance								
Hazard(s) of Concern:	☒ Dam Failure ☒ Drought ☒ Earthquake ☒ Flood ☒ Geologic Hazards	☐ Hazardous Materials ☐ Pandemic ☒ Severe Weather ☒ Wildfire							
Description of the Problem:	Parker Ridge and Clarke Farms Well Houses need portable generators to mitigate the loss of power causing loss of water production, distribution and treatment.								
Description of the Solution:	PWSD has completed an Electrical Assessment Engineering Study to identify electrical and power supply resiliency needs and to develop a systematic and prioritized approach for PWSD to implement electrical resiliency and renewable energy projects. The results have been evaluated, and budget has been allocated for this project beginning in 2027. Further prioritization and implementation planning is being developed to install emergency generator connections and power transfer switches in Parker Ridge and Clarke Farms Well Houses.								
Estimated Cost:	High (approximately \$365,000)								
Potential Funding Sources:	Capital budgeting with PWSD								
Implementation Timeline:	Short-term (1-2 years)								
Goals Met:	4, 7								
Benefits:	This action protects public health and safety and ensures continued operation of critical facilities and their essential functions during a power outage.								
Impact on Future Development:	This action results in protection of a critical facility that could support future development.								
Impact on Critical Facilities/Lifelines:	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.								
Impact on Capabilities:	This action ensures continuity of operations to maintain capabilities.								
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☒ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)							
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)	☐ Natural Resource Protection (NR) ☐ Structural Flood Control Projects (SP) ☒ Emergency Services (ES)							
Priority:	☒ High	☐ Medium	☐ Low						
Alternatives:	<table border="1"> <thead> <tr> <th>No Action</th><th>Current problem exists</th></tr> </thead> <tbody> <tr> <td>Microgrid</td><td>Costly and difficult to implement.</td></tr> <tr> <td>Solar panels and battery backup</td><td>Solar power is unlikely to be able to provide battery power for extended power failure events.</td></tr> </tbody> </table>	No Action	Current problem exists	Microgrid	Costly and difficult to implement.	Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.		
No Action	Current problem exists								
Microgrid	Costly and difficult to implement.								
Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.								

Action 2026-Parker WSD-06. Water from Northeastern Colorado to Parker

Lead Agency:	PWSD Engineering		
Supporting Agencies:	-		
Hazard(s) of Concern:	☐ Dam Failure ☒ Drought ☐ Earthquake ☐ Flood ☐ Geologic Hazards	☐ Hazardous Materials ☐ Pandemic ☐ Severe Weather ☐ Wildfire	
Description of the Problem:	Drought causing water supply loss locally within Parker Water's District.		
Description of the Solution:	Feasibility study has been completed. The project is still in the preliminary design phases and is a long-term project with anticipated construction to begin in 2035. The district will bring water from Northeastern Colorado to Parker.		
Estimated Cost:	High (approximately \$100,000)		
Potential Funding Sources:	Bonds, levies, loans, capital budgeting		
Implementation Timeline:	Long-term (over 5 years)		
Goals Met:	5, 7		
Benefits:	This action will reduce the risk of consumers experiencing a loss of water supply during time of drought.		
Impact on Future Development:	This action will provide water for future development in the area during drought events.		
Impact on Critical Facilities/Lifelines:	This action will construct a critical service by providing water services to residents during drought events.		
Impact on Capabilities:	This action will increase water service capabilities and limit the impacts from droughts.		
Mitigation Category:	☐ Local Plans and Regulations (LPR) ☒ Structure and Infrastructure Project (SIP)	☐ Natural Systems Protection (NSP) ☐ Education and Awareness Programs (EAP)	
CRS Category:	☐ Preventative Measures (PR) ☐ Property Protection (PP) ☐ Public Information (PI)	☐ Natural Resource Protection (NR) ☒ Structural Flood Control Projects (SP) ☐ Emergency Services (ES)	
Priority:	☒ High	☐ Medium	☐ Low
Alternatives:	No Action		Current problem exists
	Rely on state emergency resources to provide water supplies during drought		Not always reliable and only enabled during disaster events.
	Rely on federal emergency resources to provide water supplies during drought		Not always reliable and only enabled during disaster events.