



STUDY SESSION MEMORANDUM

TO: Mayor and Members of City Council

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DATE: December 12, 2024

SUBJECT: Introduction to Wildfire Hardening Policy and Code Update Project and Scope Discussion

EXECUTIVE SUMMARY

The purpose of this item is to seek feedback on the scope for the Wildfire Hardening Policy and Code Update and staff's recommended focus areas.

City Council identified Wildfire Hardening & Waterwise Landscaping Policies & Regulation as one of its 2024-2025 work program priorities. At its retreat, Council agreed to establish a priority that encompasses a review of policies and regulations focused on wildfire hardening strategies (building and properties) and waterwise landscaping (such as native plant use). While combined into one council priority, these are being project managed for now as two discrete items: wildfire hardening and waterwise landscaping. This memo and agenda item focuses on the wildfire hardening project.

The project kicked off this fall and is a multi-departmental collaborative effort. There is already significant work being done throughout the city organization to mitigate wildfire risk. This project focuses on the policy and regulatory changes that could further support wildfire hardening of buildings and properties. Several focus areas are recommended for council consideration. Community outreach and further exploration of the focus areas will refine the project before draft code changes are brought forward.

QUESTIONS FOR CITY COUNCIL

Staff is seeking input and direction from City Council to guide next steps for the project.

1. Does City Council support staff's recommended changes to the Wildland-Urban Interface building code local amendments?
2. Does City Council support the recommended scope and outreach efforts related to the associated land use code changes?

BACKGROUND

City Council 2024-2025 Work Plan Priority

City Council identified Wildfire Hardening & Waterwise Landscaping Policies & Regulation as one of its 2024-2025 work program priorities. At its retreat, Council agreed to establish a priority that encompasses a review of policies and regulations focused on wildfire hardening strategies (building and properties) and waterwise landscaping (such as native plant use).

In the [2024-2025 Council Retreat Summary](#), staff recommended approaching this council priority in the following ways:

1. Review existing best practices for resilient landscape policies, incentives, education and regulation - *Q4 2024*
2. Work across departments to identify potential operational enhancements, education and incentive programs, and resources, including leveraging grants in support of the two focus areas - *Q4 2024*
3. Review code revision options as part of the scheduled updates to the International Building Codes (including the Fire Code and International Wildland Urban Interface Code) - *Q1 2025*
4. Review other code updates as they relate to resilient landscapes and wildfire hardening and bring forth potential tweaks that would make progress while limiting enforcement need - *Q4 2025*

Staff described at the council retreat some limitations in combining two areas of policy and code review and potential revisions on a reasonable timeline. Staff also noted the significant enforcement aspect to any regulatory schemes that relate to wildfire hardening strategies amongst neighborhoods with detached dwelling units that will be important to explore. Staff noted at the retreat that focusing efforts on education and incentives to allow individuals to take action may be most effective, versus regulation.

Mitigating Boulder's Wildfire Risk

This project aims to mitigate wildfire risks through regulatory changes, while also supporting operational and educational opportunities. Boulder has a very high risk of wildfire—the [USDA Forest Service risk map](#) indicates that Boulder's risk is higher than 97% of communities in the United States. The Colorado State Forest Service has a [Wildfire Risk Viewer](#) that provides a comprehensive view of wildfire risk and local fire history.

A draft project charter is included as **Attachment A** and will be refined based on the discussion with council. The project charter identifies the draft project purpose statement:

- **Project Purpose:** Reduce Boulder’s wildfire risk to homes by updating codes and policies, such as regarding ignition-resistant building code requirements and landscaping codes, and by enhancing, expanding, and further operationalizing education and incentive programs that help residents reduce risk on their property.

Modifications to the building code will likely be the first action brought to City Council, specifically the part of the code that applies in the Wildland Urban Interface (WUI), the geographic area where structure and other human development meets or intermingles with wildland or vegetative fuels.

Staff anticipates returning to City Council in mid-2025 to provide more detailed options on changes to the land use code aligned with preliminary operational, education, and incentive considerations. Staff plans to complete the project by the end of 2025 along with the waterwise landscaping code changes. However, further work and coordination on all aspects of wildfire mitigation will continue beyond this project, which is focused primarily on regulatory and policy changes.

Current City Efforts

Nearly every city department is currently engaged in work to reduce wildfire risk. As part of this project, staff consolidated a list of current programs and operations, education or incentive programs, regulations, plans and policies, and strategic partnerships. Some examples of each are listed below, and full details are available in **Attachment B**.

Programs and Operations:

- Open Space and Mountain Parks wildfire risk reduction program, including forest thinning and wildland urban interface vegetation management (grazing, mowing, limbing)
- Remote Automatic Weather Stations
- New Wildfire Resilience Program Manager position, aimed at creating a six-year Wildfire Resilience Implementation Plan for the CWPP and related wildfire planning documents

Education and Incentives:

- Detailed Home Assessments
- Wildfire Resilience Assistance Program, a grants program designed to fund home hardening and Firewise landscaping projects for Boulder homes in the WUI
- Community Preparedness Workshops
- Translated Preparedness Materials (available at in the Boulder Office of Disaster Management [Resource Library](#))
- Communications and Outreach (such as [Fire Preparedness Guide](#))

Plans and Policies:

- Boulder Valley Comprehensive Plan
- Community Wildfire Protection Plan, updated 2024
- Structure Protection Plan, updating for 2025
- Urban Conflagration Plan

Regulations:

- International Wildland-Urban Interface Code
- Building Code
- Land Use Code
- OSMP and Parks and Recreation Rules & Restrictions

Strategic Partnerships:

- City of Boulder Wildfire Resilience Core and Executive Team
- Xcel Energy
- Boulder County Fireshed
- First Response Agreements
- C-4 Work Group

Current City Policy and Regulatory Framework

Building Codes

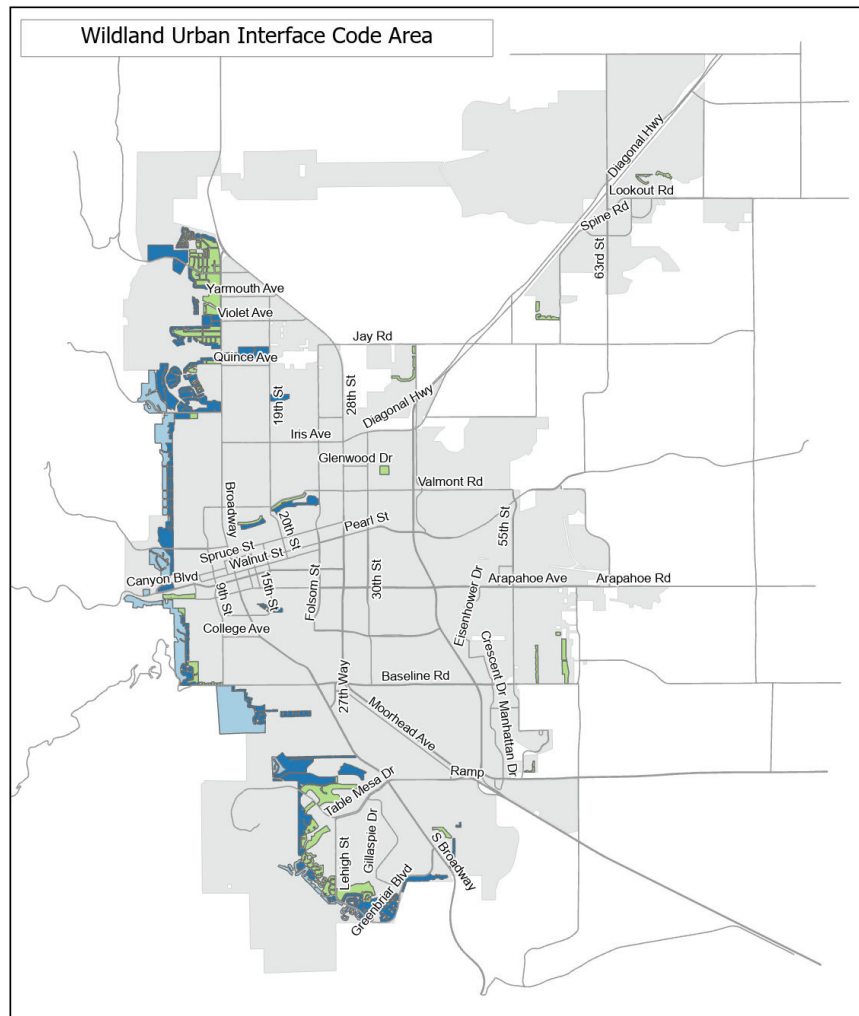
The City of Boulder routinely adopts and enforces a full set of codes that regulate buildings and construction in the city ([Title 10, B.R.C., 1981](#)). Most of these codes are based on model building codes developed by the International Code Council (ICC), with local amendments to address issues specific to the Boulder community. For example, through local amendments Boulder has had for some time a citywide prohibition of wood roof coverings and requires Class A (most restrictive) roofing to mitigate fire risk.

The ICC model codes are updated on a three-year cycle and the city typically adopts every other cycle of these codes. Boulder most recently adopted the 2018 set of codes, including the 2018 [International Wildland-Urban Interface Code \(IWUIC\)](#). Boulder first adopted the IWUIC in 2013, and it was effective on January 31, 2014. A regular update is planned in 2025.

The purpose of the IWUIC is to regulate the use, condition, and construction of structures within WUI areas to mitigate the risk to life and structures associated with the spread of wildland fires into the interface area and to minimize the potential spread of structure fires into wildland fuels. It establishes minimum regulations for the safeguarding of life and for property protection.

The IWUIC requires new construction and additions or remodels to homes within the identified WUI area (see map below) to meet additional regulations beyond the standards found in the general construction requirements of the city’s building code. These additional regulations include fire resistant materials, underfloor areas, roof coverings, eaves, rain gutters, windows, and ventilation openings.

The map below for the current WUI area was determined by Boulder Fire-Rescue ([view the interactive map](#)). The IWUIC requires the WUI to be identified and reviewed at least every three years. The map is delineated by the areas of the three tiers of ignition resistant construction required by the IWUIC. The degree of fire resistance required for construction in the WUI area depends on several factors, including available water supply for firefighting, the fuel hazard, and the number of days of critical fire weather. Most areas in the interface area in Boulder require 1-hour fire resistance materials. In addition to construction standards, the IWUIC requires vegetation management plans as a part of building permit applications in the interface areas.



Legend

- | | | |
|---|---|-------------|
| Ignition Resistant Class | Class 2 Ignition Resistant Construction | City Limits |
| Class 1 Ignition Resistant Construction | Class 3 Ignition Resistant Construction | |



Land Use Code

Currently, there are no standards in the land use code specifically related to wildfire mitigation for the Wildland-Urban Interface area or other locations in the city. The land use code has many development standards, like landscaping and fence standards, that may be intertwined with wildfire risk. Land use codes generally do not regulate building materials in the same way as a building code, but focus more on site conditions or design compatibility or quality and compatibility. As part of building permit review noted above, compliance with the land use code is also confirmed.

Enforcement

The primary means of enforcement of building codes (including the IWUIC) and the land use code is the requirement for building permits for construction. The permit process includes staff review of plans to determine compliance with all applicable codes prior to issuance of the permit to allow construction. During construction, projects are inspected by building inspectors and code compliance specialists to determine compliance with the approved plans and codes. Landscape plans are also reviewed and inspected at the time of building permits. Additionally, there are also separate inspections performed annually for commercial and other high risk structures in accordance with the fire code, but not specific to the WUI area.

In addition to permit review and inspections, code enforcement also includes investigation for violations. Code Enforcement officers are part of the Police Department and investigate code violations like overgrown vegetation, weeds, wood burning restrictions, and other safety and quality of life concerns. The Code Compliance specialists within Planning and Development Services investigate possible code violations and concerns related to residential and commercial building safety, right of ways, rental housing licensing, and zoning. Almost all Code Enforcement and Code Compliance activity is complaint-based only; there are not current resources for a prospective enforcement program.

Sustainability, Equity, and Resilience Framework

While many of the policies in the Sustainability, Equity, and Resilience (SER) Framework are related to wildfire hardening, the following policy aligns specifically with the intent of this project:

Safe

A welcoming and inclusive community that fosters positive neighborhood and community relations and ensures that all residents are secure and cared for during emergencies and natural disasters. Public infrastructure is well-maintained and reliable, and natural resources like water, air, and land are protected.

- Builds and maintains resilient infrastructure, landscapes and neighborhoods to mitigate existing and future hazards and risks.

Boulder Valley Comprehensive Plan

The Boulder Valley Comprehensive Plan (BVCP) is the overarching policy document for the city. Several relevant policies are adopted within the BVCP, with the following most directly applicable to this project:

Natural Environment Policy 3.20: Wildfire Protection & Management

As Boulder County's climate changes, the intensity and frequency of wildfires is likely to increase. The city and county will require onsite and off-site measures to guard against the danger of fire in developments adjacent to natural lands and consistent with forest and grassland ecosystem management principles and practices. Recognizing that fire is a widely accepted means of managing ecosystems and wildfire risk, the city and county will integrate ecosystem management principles with wildfire hazard mitigation planning and urban design.

Natural Environment Policy 3.10 Climate Change Mitigation & Adaptation & Resilience

The city and county are working to help mitigate climate change globally and recognize that climate change adaptation is an important area for consideration.

Preserving large ecological reserves enhances the resilience of native ecosystems and reduces the loss of native biodiversity, ecological processes and ecosystems as the climate changes. Additionally, the city and county will use an adaptive management approach to assess potential impacts from changes in the local climate. Open space management plans guide other strategies related to climate change, such as changes to visitation rates or visitor experiences (e.g., heat exposure or scenic quality) on open space. Overall strategies may include:

1. Actively improve our understanding of the effect of climate change on local ecosystems and of actions that may help maintain or restore the ecological functions of natural systems under a changing climate;
2. Actively identify and monitor ecosystems most vulnerable to climate change using biological indicators of sensitivity and response;
3. Protect large reserves of open space land to support the long-term viability of native plants and animals;
4. Conduct restoration of degraded environments and management of natural ecosystems to enhance their resilience in the presence of climate change, using existing management plans and the best available science. In some cases, this may involve ecosystem transition to alternate states or novel ecosystems (e.g., to ecosystems now found at different elevations, to variations of current ecosystems, or ecosystems changing in other ways that cannot be forecast with certainty today);
5. On-going attention to the wildland urban interface environments to improve management of both natural resources and human-wildlife conflicts and to reduce the potential for catastrophic wildfire;

and 6. Including specific management guidance and direction regarding climate change mitigation, adaptation and resilience when city and county agencies prepare master plans.

Community Well-Being & Safety Policy 8.09 Resilience in Public Safety & Risk Prevention

The city and county will provide focused efforts around public safety, risk prevention and early intervention. Working with the community, the city and county will strive to prepare all segments of the community for uncertainty and disruptions by encouraging community and individual preparedness and creating a culture of risk awareness. The city and county will prepare for, respond to and manage wildfire hazards by implementing wildland-urban interface regulations and developing, updating and implementing multi-hazard mitigation programs and plans.

Community Wildfire Protection Plan

The city finalized the Community Wildfire Protection Plan (CWPP) update in 2024. This project partially implements recommendations of the CWPP. The CWPP identifies wildfire risks in the area where wildland fuels and human development meet. The CWPP update is a guiding document and risk assessment that assists the city and community members in making informed decisions on wildfire preparation and management, including inform future land use planning, building codes, and wildfire mitigation and prevention-related ordinances.

The final draft of [the CWPP](#) was reviewed by City Council at its May 23, 2024, study session. The CWPP has accompanying recommendations (mostly operational) to mitigate wildfire risks and is organized around three National Cohesive Wildland Fire Management Strategies: Resilient Landscapes, Fire Adapted Communities, and Safe and Effective Wildfire Response. The CWPP recommends the adoption and enforcement of enhanced building codes, as is contemplated in this Council priority project. Specifically, the CWPP recommends:

Fire Adapted Communities strategy 10 (FAC-10): Collaborate with local building departments and fire agencies to review and, if necessary, update building codes to incorporate effective wildfire-resistant construction standards and best defensible space practices.

- *Fully integrate the International WUI Code into permitting processes, construction requirements, and Home Ignition Zones (HIZ) best practices.*
- *Conduct public outreach campaigns and provide educational materials on code requirements.*
- *Strengthen code enforcement mechanisms to ensure adherence.*
- *Increase staff capacity to perform inspections, provide education and enforce code.*
- *Offer technical assistance and support to builders, architects, and property owners.*

Please note that the WUI area identified in the CWPP differs from the WUI area where the IWUIC building code requirements apply. WUI boundaries presented in CWPPs are

developed at the community scale for purposes of risk assessment, offering information at the community level rather than the parcel level.

State Efforts

Statewide efforts in the past decade to address wildfire through land use planning have primarily focused on voluntary actions that local communities can take to address the WUI. After a destructive 2020 wildfire season (such as the Calwood, East Troublesome, and Cameron Peak fires) followed by the devastating Marshall Fire in late 2021, there was renewed state interest in wildfire regulations and mitigation activities at the state level. In 2023, [Senate Bill 23-166](#) was adopted which established a wildfire resiliency code board to adopt model codes, requiring governing bodies with jurisdiction in an area within the WUI to adopt codes that meet or exceed the model code standards.

By July 1, 2025, the board is required to circulate rules concerning the adoption of codes and standards for the hardening of structures and reducing fire risk in the defensible space surrounding structures in the wildland-urban interface in Colorado, including rules that:

- Define the wildland-urban interface and identify areas of the state that fit within the definition;
- Adopt minimum codes and standards based on best practices to reduce the risk to life and property from the effects of wildfires;
- Identify hazards and types of buildings, entities, and defensible space around structures to which the codes apply; and
- Establish a process for a governing body to petition the board for a modification to the codes and establish the criteria and process for the board to grant or deny an appeal from a decision of the board on a petition for modification.

The act requires a governing body with jurisdiction in an area within the wildland-urban interface that has the authority to adopt building codes or fire codes to adopt and enforce a code that meets or exceeds the minimum standards of the codes adopted by the board within three months of the date the board adopts its codes. Enforcement of the governing body's adopted codes is done in accordance with the rules and regulations for code enforcement adopted by the governing body.

It is the intent of this project to incorporate standards from the state code as they become available. It is anticipated that the city's current locally amended IWUIC will likely be compliant with any state requirements but note that additional changes may be necessary to align with these new state requirements. If the state wildfire resiliency code board does not adopt model codes by July 1, 2025, portions of this city project may be delayed in late 2025, or a subsequent set of changes may need to be brought forward separately.

ANALYSIS

The following section will provide background information on the focus areas of the project as well as the key questions for City Council input.

Peer Communities Research

As noted above, the IWUIC has been in effect in Boulder since 2014 following the devastating 2012 and 2013 wildfire seasons. The code is employed by other areas with significant wildfire risk, and is often tailored to address building materials, defensible space, emergency access, water supply, and other fire mitigation factors. Over 200 jurisdictions across 24 states have adopted the IWUIC or aspects of the code. Montana, Nevada, Pennsylvania, Utah, and Washington have adopted the IWUIC at the state level. For reference, the Community Wildfire Planning Center has a helpful analysis of [Land Use Planning Approaches in the Wildland-Urban Interface](#) in California, Colorado, Montana, and Washington.

In Colorado, communities have taken different approaches to planning for wildfire and implementing regulations. Some have adopted the locally-amended IWUIC code, while others have developed individual land use or development codes. Either way, these efforts are often implemented alongside other voluntary efforts to mitigate wildfire risk. As described in the Community Wildfire Planning Center's [Regulating the Wildland-Urban Interface](#) in Colorado:

Communities across the state have taken different approaches to crafting and adopting WUI regulations, including:

- *Using a model code or standards, such as the International Code Council (ICC) International Wildland-Urban Interface Code (IWUIC) or National Fire Protection Association (NFPA) standards, as the basis of developing regulations. Communities may adopt a model code or standards by reference and make local amendments.*
- *Developing and adopting development standards within a Land Use and Development Code that address development in a designated WUI and/or wildfire hazard area.*
- *Developing and adopting a standalone ordinance that targets a specific aspect of the WUI, such as hazardous vegetation or defensible space. These are typically incorporated into a chapter of a county or municipal code.*

Staff further researched 15 peer communities to better understand the various approaches to regulating in the WUI. These were primarily located in Colorado, with some additional communities out of state known to have strong focus on fire mitigation efforts. For a detailed summary matrix, see **Attachment C**.

A few communities are highlighted below to present different approaches:

- **IWUIC Code Only – Austin, TX and Chaffee County, CO**

Many communities adopt the IWUIC (often with local amendments) only and do not have any additional wildfire mitigation standards in their zoning code. In the WUI, certain fire-resistant requirements apply. This is the current approach in the City of Boulder.

- **Land Use Code Only, Overlay District – Ashland, OR and Boise, ID**

These cities do not incorporate specific requirements for the WUI in their building codes, but rather have established a WUI overlay district within their zoning or land use codes. In the area of the overlay district, often additional plans, such as wildfire mitigation plans or fuel modification plans are required for city approval, and certain additional zoning standards apply.

- **Both Building Code and Land Use Code – Colorado Springs, CO, Douglas County, CO, Jefferson County, CO, Loveland, CO**

Several Colorado communities incorporate both building code requirements and land use code requirements, often with a WUI overlay district established in the land use code. The land use code often requires additional plans submitted for construction proposals, like wildfire hazard assessments completed by qualified professionals. Zoning standards apply to properties within the WUI overlay, and additional building code requirements also address wildfire risk reduction.

- **Standalone Ordinance: Eagle County, CO, Ouray County, CO**

Some communities have standalone wildfire regulations in one part of their community’s code, typically the land use code. These require additional plans to be submitted and address typical wildfire risk reduction standards.

Current Construction Activity in the WUI

Since the IWUIC was first adopted in 2014, over 900 building permits in the WUI have been reviewed, including about 250 currently in the review or construction process. From an initial review of permit description data, it appears that about 50 of these were permits for new structures and about 300 of all building permits in the WUI area include modifications or new construction of a deck.

Building Costs of Wildfire-Resistant Construction

The perceived cost of implementing wildfire hardening regulations is a commonly cited barrier to consideration and adoption by some communities. [This study by Headwater Economics](#) examines the cost differences between a typical home and a home constructed using wildfire resistant materials and design features. The study found that costs of wildfire-resistant construction was comparable and even slightly lower than typical home construction.

SCOPE RECOMMENDATION

The following summarizes the proposed scope of work for this council priority project for council’s consideration in guiding the future direction of this project. The proposed schedule for regulatory changes would be:

1. Adopt local amendments to the 2024 IWUIC (Spring 2025)
2. Adopt land use code changes (Fall 2025)

Building Code Changes

The city typically adopts every other cycle of the ICC model codes, which are on a three-year cycle. Boulder most recently adopted the 2018 set of codes, so the 2024 set of codes is planned for adoption with modifications in 2025. Staff is recommending focusing on the following topics to enhance wildfire hardening of buildings:

Applicable Citywide:

- Consider requiring building permits for window replacement and siding replacement in low-rise residential buildings of 3 stories or less.

General:

- Adding IWUIC definitions for defensible space, noncombustible zone, and other miscellaneous IWUIC intent language.
- Adding more specific language on roofs, framing, and ignition-resistant deck materials.

Applicable in WUI - New Construction Only:

- For new construction, consider requiring all fence or gate sections within 8 feet of any habitable structure to be constructed with noncombustible materials.
- Consider requiring fence or gate sections attached to other structures that are themselves within 10 feet of a habitable structure to be constructed with noncombustible materials.
- Consider requiring a 5-foot noncombustible zone.
- Explore applying some vegetation management standards to a larger area beyond the WUI that could be affected by wildfire based on risk modeling.
- Consider allowing only low-flammability plants in the defensible space area between 5 and 30 feet from habitable buildings (for example, prohibiting junipers).

Land Use Code Changes

As shown in the peer community research, it can be effective to also locate additional wildfire-related regulations in the land use code. Staff proposes the following focus areas for land use code changes, in conjunction with the changes to the building code above:

- **Wildland-Urban Interface Overlay District:** Many communities apply a WUI overlay district to the properties within the WUI. This allows additional land use and development standards to be applied in that area. Many cities require additional plans to be submitted during a permit process, such as a wildfire hazard assessment, or a fuels management plan, often by a certified forester. Site specific standards, such as defensible space requirements, landscaping, fences, or any other types of standards could be incorporated into overlay district standards and reviewed like any other zoning requirement. The geography of the WUI overlay district would match that of the building code.

- **Landscaping:** The land use code already has thorough landscaping standards that are reviewed at the time of building permit for new construction and major remodels and additions or through other development review approvals. The landscaping standards could be updated to reflect different requirements in the WUI, such as firewise plantings or prohibited plants.
- **Fences:** The land use code currently has fence standards related to height, location, and materials. Note that permits are not required for fences under 7 feet, so these standards are typically ensured through enforcement rather than permitting. All building permits are reviewed for compliance with land use standards, so these are confirmed at that time as well, despite not needing an individual permit. Certain materials are already prohibited in specific locations, like barbed wire and electric fencing. The fence standards in the land use code could be updated to require fire-resistant fence connections.

Resource Considerations

Reviewing additional plans or new standards inherently requires additional staff time for plan reviewers. In addition, more complex requirements also add to staff time inspecting properties during the construction process and potentially enforcing the additional standards. Additional wildfire hardening standards, whether in the building code, land use code, or through other approaches, will require the support of additional staffing resources to maintain current service delivery standards for permit review and inspections.

Incentive and Education Programs

Almost all communities combine regulatory approaches with incentive or educational programs. As noted above, the city currently provides preparedness workshops for community members and already is engaged in communications and outreach with residents on this topic.

In addition, the city recently established and launched a Wildfire Resilience Assistance Grants Program to help eligible homeowners cover costs associated with mitigation. This new grant program complements the Detailed Home Assessment program. Specific community outreach and communications are now being disseminated to promote and build interest in this new assistance program and is already generating interest from homeowners.

The Detailed Home Assessment program helps identify home hardening techniques for residents, and the new grant program provides financial assistance to complete actions to harden the homes. Input during the CWPP showed interest in neighborhood-specific guidance on home hardening and incentives for resilient landscaping.

COMMUNITY ENGAGEMENT

Staff is anticipating a **consult** level of engagement for this project. The project charter in **Attachment A** outlines some of the engagement strategies being explored. Initial ideas for engagement include virtual engagement through Be Heard Boulder, mailings to WUI property owners, and office hours. Staff will further develop an engagement plan based

on the scope of work determined by council. This engagement will inform the building code and land use code changes that will ultimately be brought to council in 2025. The city's racial equity instrument has also been initiated to guide efforts in this project and advance racial equity.

Importantly, engagement will also be informed by the recent efforts for the CWPP, as the feedback received is applicable to this work as well. The feedback received during public engagement processes for the CWPP reflects a community deeply invested in sustainable and effective wildfire management. Key points received during the CWPP process included:

- **Coordinated Fuels Management:** Community members advocated for continuous management of surface fuels and designing treatments with habitat protection in mind.
- **Professional Engagement in Community Meetings:** The public desires continued and increased engagement from wildfire mitigation professionals in neighborhood and Homeowners Association (HOA) meetings.
- **Home Hardening Guidance:** The public advocated for home hardening strategies integrated into community planning, along with neighborhood-specific sessions to tailor recommendations to local needs.
- **Incentives for Resilient Landscaping and Home Hardening:** There is a call for more incentives to encourage xeriscaping and the creation of resilient, livable spaces as part of home hardening measures.
- **Infrastructure Improvements for Evacuations:** The public desires improved evacuation preparedness, especially in areas prioritized within the Wildland-Urban Interface (WUI).
- **Environmental Protection:** There is a strong emphasis on protecting forests, wildlife habitats, and water resources through sustainable wildfire management practices.

NEXT STEPS

Staff is scheduled to attend the December 17 Planning Board meeting to introduce the project and receive initial guidance. Tentatively, staff anticipates returning to City Council in the first half of 2025 to bring proposed changes to the IWUIC. Staff would return in mid-2025 to council to discuss potential land use code changes, likely in conjunction with the waterwise landscaping project. The goal is to complete all aspects of this project by the end of 2025 (potentially subject to the state model code timing)

ATTACHMENTS

Attachment A: Project Charter

Attachment B: Summary of Current City Wildfire Mitigation Work

Attachment C: Peer Community WUI Regulations Summary Matrix

Wildfire Hardening

City Council Work Plan Priority Project Project Charter – *Working Draft*

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Project Purpose & Goals

Background

City Council identified *Wildfire Hardening & Waterwise Landscaping Policies & Regulation* as one of their 2024-2025 work program priorities. At their retreat, Council agreed to establish a priority that encompasses a review of policies and regulations focused on wildfire hardening strategies (building and properties) and waterwise landscaping (e.g., native plant use, etc.).

Staff described at the council retreat some limitations in combining two areas of policy and code review and potential revisions on a reasonable timeline.

There is also a significant enforcement aspect to any regulatory schemes that relate to both wildfire hardening and waterwise landscaping strategies amongst single family homes that will be important to explore. Staff believes that the most impactful manner in which to achieve both wildfire resilience and lowering water usage in landscapes across the city is to focus efforts on education and incentives to allow individuals to take action in the short-term.

Staff recommends approaching this council priority in the following ways:

1. Review existing best practices for resilient landscape policies, incentives, education and regulation (Q4 2024).
2. Work across departments to identify potential operational enhancements, education and incentive programs, and resources, including leveraging grants in support of the two focus areas (Q4 2024).
3. Review code revision options as part of the scheduled updates to the International Building Codes [IBC] (including the Fire Code and Wildland Urban Interface Code [WUIC]) (Q1 2025).
4. Review other code updates as they relate to resilient landscapes and wildfire hardening and bring forth potential tweaks that would make progress while limiting enforcement need (Q4 2025).

Potential outcomes include increased protection against wildfire events and decreased use of water for landscaping.

While combined into one council priority, these are two discrete projects: wildfire hardening and waterwise landscaping. The remainder of this project charter focuses on the wildfire hardening project. A separate project charter has been created for the waterwise landscaping project. For efficiency, some of the code changes that are identified in the wildfire hardening project will be incorporated into the final ordinance adopted within the waterwise landscaping ordinance. Tasks for each are outlined below:

WATERWISE LANDSCAPING	WILDFIRE HARDENING
Land Use Code changes	Building code updates
Design & Construction Standards	Potential Land Use Code changes
Educational programs Incentives Enforcement	

STATE EFFORTS

[SB23-166](#) established a wildfire resiliency code board to adopt model codes, requiring governing bodies with jurisdiction in an area within the wildland-urban interface to adopt codes that meet or exceed the standards set forth in the model codes.

By July 1, 2025, the board is required to promulgate rules concerning the adoption of codes and standards for the hardening of structures and reducing fire risk in the defensible space surrounding structures in the wildland-urban interface in Colorado, including rules that:



COLORADO
Wildfire
Resiliency
Code Board

- Define the wildland-urban interface and identify areas of the state that are within it;
- Adopt minimum codes and standards based on best practices to reduce the risk to life and property from the effects of wildfires;
- Identify hazards and types of buildings, entities, and defensible space around structures to which the codes apply; and
- Establish a process for a governing body to petition the board for a modification to the codes and establish the criteria and process for the board to grant or deny an appeal from a decision of the board on a petition for modification.

The act requires a governing body with jurisdiction in an area within the wildland-urban interface that has the authority to adopt building codes or fire codes to adopt and enforce a code that meets or exceeds the minimum standards of the codes adopted by the board within 3 months of the date the board adopts its codes. Enforcement of the governing body's adopted codes is done in accordance with the rules and regulations for code enforcement adopted by the governing body.

COMMUNITY WILDFIRE PROTECTION PLAN

The City is currently finalizing the Community Wildfire Protection Plan (CWPP). The CWPP identifies wildfire risks in the area where wildland fuels and human development meet, or the Wildland-Urban Interface (WUI). Funded by Boulder's Climate Tax passed by voters in November 2022, the CWPP update serves as a guiding document that will assist the city and community members in making informed decisions with respect to wildfire preparation and management. One of the purposes of the plan is to provide information to inform future land-use planning, building codes, and wildfire mitigation and prevention-related ordinances.

The final draft of the plan was reviewed by City Council at its May 23, 2024 study session. The plan is summarized on this [Story Map](#).

The CWPP is not a regulatory document. It is a risk assessment with accompanying recommendations (predominately operational in nature) to mitigate those risks. Council action related to the plan will occur over the course of implementing the recommendations.

The one policy recommendation in the plan is to explore the adoption and enforcement of enhanced building codes. Specifically, the plan lays out the following approach:

Collaborate with local building departments and fire agencies to review and, if necessary, update building codes to incorporate effective wildfire-resistant construction standards and best defensible space practices.

- Fully integrate the International WUI Code into permitting processes, construction requirements, and HIZ best practices.
- Conduct public outreach campaigns and provide educational materials on code requirements.
- Strengthen code enforcement mechanisms to ensure adherence.
- Increase staff capacity to perform inspections, provide education and enforce code.
- Offer technical assistance and support to builders, architects, and property owners.

Problem/Issue Statement

Boulder has a very high risk of wildfire— the [USDA Forest Service risk map](#) indicates that Boulder’s risk is higher than 97% of communities in the United States.

Project Purpose Statement

Reduce Boulder’s wildfire risk to homes by updating codes and policies, such as regarding ignition-resistant building code requirements and landscaping codes, and by enhancing, expanding, and further operationalizing education and incentive programs that help residents reduce risk on their property.

Guiding BVCP Policies

The project is guided by many key BVCP policies:

Natural Environment Policy 3.11 Urban Environmental Quality

To the extent possible, the city and county will seek to protect the environmental quality of areas under significant human and urban influence and will balance human needs and public safety with environmental protection. The city will develop and apply community-wide programs and standards for new development and redevelopment so that negative environmental impacts will be mitigated and overall environmental quality of the urban environment will be maintained and improved.

Natural Environment Policy 3.05 Maintain & Restore Natural Ecological Processes & Natural Disturbances

Recognizing that natural ecological processes, such as wildfire and flooding, are integral to the productivity and health of natural ecosystems, the city and county will work to ensure that, when appropriate precautions have been taken for human safety and welfare, ecological processes are maintained or replicated in the management of natural lands.

Natural Environment Policy 3.20: Wildfire Protection & Management

As Boulder County’s climate changes, the intensity and frequency of wildfires is likely to increase. The city and county will require onsite and off-site measures to guard against the danger of fire in developments adjacent to natural lands and consistent with forest and grassland ecosystem management principles and practices. Recognizing that fire is a widely accepted means of managing ecosystems and wildfire risk, the city and county will integrate ecosystem management principles with wildfire hazard mitigation planning and urban design.

Natural Environment Policy 3.10 Climate Change Mitigation & Adaptation & Resilience

The city and county are working to help mitigate climate change globally and recognize that climate change adaptation is an important area for consideration.

Preserving large ecological reserves enhances the resilience of native ecosystems and reduces the loss of native biodiversity, ecological processes and ecosystems as the climate changes. Additionally, the city and county will use an adaptive management approach to assess

potential impacts from changes in the local climate. Open space management plans guide other strategies related to climate change, such as changes to visitation rates or visitor experiences (e.g., heat exposure or scenic quality) on open space. Overall strategies may include:

1. Actively improve our understanding of the effect of climate change on local ecosystems and of actions that may help maintain or restore the ecological functions of natural systems under a changing climate;
 2. Actively identify and monitor ecosystems most vulnerable to climate change using biological indicators of sensitivity and response;
 3. Protect large reserves of open space land to support the long-term viability of native plants and animals; 4. Conduct restoration of degraded environments and management of natural ecosystems to enhance their resilience in the presence of climate change, using existing management plans and the best available science. In some cases, this may involve ecosystem transition to alternate states or novel ecosystems (e.g., to ecosystems now found at different elevations, to variations of current ecosystems, or ecosystems changing in other ways that cannot be forecast with certainty today);
 5. On-going attention to the wildland urban interface environments to improve management of both natural resources and human-wildlife conflicts and to reduce the potential for catastrophic wildfire;
- and 6. Including specific management guidance and direction regarding climate change mitigation, adaptation and resilience when city and county agencies prepare master plans.

Natural Environment Policy 3.18 Hazardous Areas

Hazardous areas that present a danger to life and property from flood, forest fire, steep slopes, erosion, unstable soil, subsidence or similar geological development constraints will be delineated, and development in such areas will be carefully controlled or prohibited.

Energy Climate & Waste Policy 4.02 Climate Adaptation Planning

The city and county will cooperatively develop and implement a climate change adaptation plan to identify current vulnerabilities, address economics of recovery and determine strategies to protect the community against the potential negative impacts associated with climate change. These challenges include droughts, flash flooding, communicable diseases, heat waves, wildfires and increased road maintenance, among others. The city and county seek to improve the community’s ability to effectively and quickly respond to and recover from adversity, disruptions and climate change related shocks and stresses.

Community Well-Being & Safety Policy 8.09 Resilience in Public Safety & Risk Prevention

The city and county will provide focused efforts around public safety, risk prevention and early intervention. Working with the community, the city and county will strive to prepare all segments of the community for uncertainty and disruptions by encouraging community and individual preparedness and creating a culture of risk awareness. The city and county will prepare for, respond to and manage wildfire hazards by implementing wildland-urban interface regulations and developing, updating and implementing multi-hazard mitigation programs and plans.

Project Timeline

	2024						2025											
	Q3			Q4			Q1		Q2		Q3		Q4					
	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
PROJECT SCOPING & RESEARCH																		
Internal scoping																		
Best practices research																		
Audit existing code																		
Core team meeting																		
PUBLIC ENGAGEMENT																		
Public review draft WUI code changes																		
Public review draft landscaping code																		
DRAFTING																		
Code audit summary																		
WUI Code updates																		
Landscape code updates																		
Options development – landscaping code																		
Landscaping draft																		
Landscaping CAO review																		
PLANNING BOARD REVIEW																		
PB matters																		
PB public hearing – IBC/WUI code updates																		

	2024						2025											
	Q3			Q4			Q1			Q2			Q3			Q4		
	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
PB public hearing - landscaping																		
CITY COUNCIL REVIEW																		
Study session						12/12												
1 st reading WUI code																		
2 nd reading WUI code																		
1 st reading landscaping																		
2 nd reading landscaping																		
IMPLEMENTATION																		
WUI code																		

Project Scoping | Q3 2024 | Planning

- Develop initial scope of work for wildfire hardening changes based on council retreat discussion
- Begin core team meetings
- Develop Be Heard Boulder landing page (combine with landscaping), update city website
- Meet with interested stakeholders as requested

Deliverables

- *Best practices research summary*
- *Project charter*
- *Core team meeting summaries*
- *Be Heard Boulder page*

Initial Direction | Q4 2024 | Shared Learning & Options

- Best practices research on wildfire hardening strategies in building and zoning codes
- Audit existing building code and zoning code for wildfire resilience improvements
- Options development, initial drafting of WUI code changes
- Continued internal staff stakeholder engagement
- Planning Board matters item (if needed)
- CAO review meetings begin
- City Council study session: provide background on existing programs, best practices, existing enforcement and code requirements, existing education and incentive programs. Discuss potential changes as part of 2024 building code update. Study session topic will also include waterwise landscaping.
- Work with other departments to identify new potential education and incentive programs.

Deliverables

- *Best practices research summary*
- *Code audit summary*
- *Initial drafting of potential building code updates*
- *Planning Board Matters memo and attachments*
- *City Council study session memo and attachments*

Building Code Adoption and Implementation| Q1-Q3 2025 | Decision

- Release potential changes for public review
- Planning Board, City Council adoption process

Deliverables

- *Draft ordinance/building code changes*
- *Planning Board memo*
- *City Council memos*
- *Summary of non-code programmatic opportunities*

Landscaping Code Changes | Q3-Q4 2025 | Decision

- Complete additional identified land use code changes with waterwise landscaping update (see other charter)
- Public review draft of landscaping changes (see other charter)
- Public hearings at Planning Board and City Council, water resources and environmental advisory board meetings – final adoption required by Jan. 1, 2026

Deliverables

- *Draft ordinance*
- *Planning Board memo*
- *City Council memos*
- *TAB memo*

Engagement & Communication

Level of Engagement

The City of Boulder has committed to considering four possible levels when designing future public engagement opportunities (see chart in the appendix). For this project, the public will be **Consulted** on potential changes.

Who Will be Impacted by Decision/Anticipated Interest Area

- **Residents and neighborhoods** who may be impacted in the neighborhoods where they live/work/play, especially residents of the WUI.
- **Historically excluded communities** that may be unfamiliar with the methods to offer input.
- **City staff, City boards, and City Council** who will administer updated building and land use code regulations.

Overall Engagement Objectives

- Model the engagement framework by using the city's decision-making wheel, levels of engagement and inclusive participation.

- Involve people who are affected by or interested in the outcomes of this project.
- Be clear about how the public's input influences outcomes to inform decision-makers.
- Provide engagement options.
- Remain open to new and innovative approaches to engaging the community.
- Provide necessary background information in advance to facilitate meaningful participation.
- Be efficient with the public's time.
- Show why ideas were or were not included in the staff recommendation.

Engagement Strategies

BE HEARD BOULDER

Purpose: A home page for all project-related documents, announcements of engagement opportunities, and virtual engagement. This will be utilized to post the public review draft of both the WUI code changes and landscaping changes and a short questionnaire will be developed to help solicit comments on the draft.

Logistics: P&DS staff will build the Be Heard Boulder page and questionnaire.

MAILINGS

Purpose: As the changes to WUI code would impact only a portion of properties in the city, mailed notice to promote the public review draft opportunity could reach the impacted property owners.

Logistics: Some funding to complete the mailing will be necessary. P&DS staff will create a letter using existing templates and contract with the mailing service to have them sent.

OFFICE HOURS

Purpose: Provide an informal forum for interested residents to chat with staff about the project and answer any questions.

Logistics: P&DS, BFR, and other relevant staff will attend. One will be held virtually and one will be held in person.

WEBSITE

Purpose: The code change website will be maintained and updated throughout the remainder of the project to inform the public of the project, provide updates, and link to any engagement opportunities.

Logistics: Work with communications staff to make updates as needed to the website.

NEWSLETTER AND EMAIL UPDATES

Purpose: Updates on the project will be provided to interested parties.

Logistics: Staff will work with communications staff to draft content for the planning newsletter during key engagement windows. Additional email updates will be provided on an as-needed basis.

Project Team & Roles

Team Goals

- Follow City Council and Planning Board direction regarding changes to WUI code and landscaping changes related to wildfire hardening.
- Seek community feedback on proposed standards or criteria and incorporate relevant ideas.
- Solution must be legal, directly address the purpose and issue statement, and must have application citywide.

Critical Success Factors

- Conduct a successful public engagement process.
- Improve process timelines and customer satisfaction.

Expectations

Each member is an active participant by committing to attend meetings; communicate the team’s activities to members of the departments not included on the team; and demonstrate candor, openness, and honesty. Members will respect the process and one another by considering all ideas expressed, being thoroughly prepared for each meeting, and respecting information requests and deadlines.

Potential Challenges/Risks

The primary challenge of this project is making sure that proposed code changes avoid unintended consequences and over complication of the code. There are also some challenges with duplicating work, for instance, there is similar state work going on with the Wildfire Resiliency Code Board that may inform the WUI definition and future changes, but is not necessarily on the same timeline to be adopted as expected by council in 2024-2025.

Administrative Procedures

The core team will meet regularly throughout the duration of the project. An agenda will be set prior to each meeting and will be distributed to all team members. Meeting notes will be taken and will be distributed to all team members after each meeting.

CORE TEAM	
Executive Sponsor	Brad Mueller
Executive Team	Brad Mueller, Charles Ferro, Karl Guiler
Project Leads	
Project Manager	Lisa Houde
Other Assistance	
Fire Department	Dave Lowrey

OSMP	Dan Burke, George Greenwood, Paul Dennison, Brian Anacker
CAO	Laurel Witt
Chief Building Official	Rob Adriaens
Landscape Architect	Chris Ricciardiello
IT Applications	Chris Trice
Comprehensive Planning	Kathleen King
Historic Preservation	Marcy Gerwing
Communications	Cate Stanek
Code Enforcement (PD)	Jen Riley
Code Compliance	Jenn Ross
GIS	Sean Metrick
Community Engagement	Vivan Castro-Wooldridge
Finance (WRAP grants)	Annie Scott

Executive Sponsor: The executive sponsor provides executive support and strategic direction. The executive sponsor and project manager coordinates and communicates with the executive team on the status of the project, and communicate and share with the core team feedback and direction from the executive team.

Project Manager: The project manager oversees the development of the Land Use Code amendment. The project manager coordinates the core team and provides overall project management. The project manager will be responsible for preparing (or coordinating) agendas and notes for the core team meetings, coordinating with team members on the project, and coordinating community outreach. The project manager coordinates the preparation and editing of all council/board/community outreach materials for the project, including deadlines for materials.

Other Department Assistance: Staff from other departments or divisions coordinate with the project manager on the work efforts and products. These staff members will assist in the preparation and editing of all council/board/public outreach materials including code updates as needed.

Project Costs/Budget

No consultant costs have been identified for this project at this time. The project will be undertaken by P&DS staff. Some funding may be required for mailing notices to property owners in the WUI.

Decision-Makers

- **City Council:** Decision-making body.
- **Planning Board:** Will provide input throughout the process, and make a recommendation to council that will be informed by other boards and commissions.
- **City Boards and Commissions:** Will provide input throughout process and ultimately, a recommendation to council around their area of focus.

Boards & Commissions

City Council – Will be kept informed about project progress and issues; periodic check-ins to receive policy guidance; invited to public events along with other boards and commissions. Will ultimately decide on the final code changes.

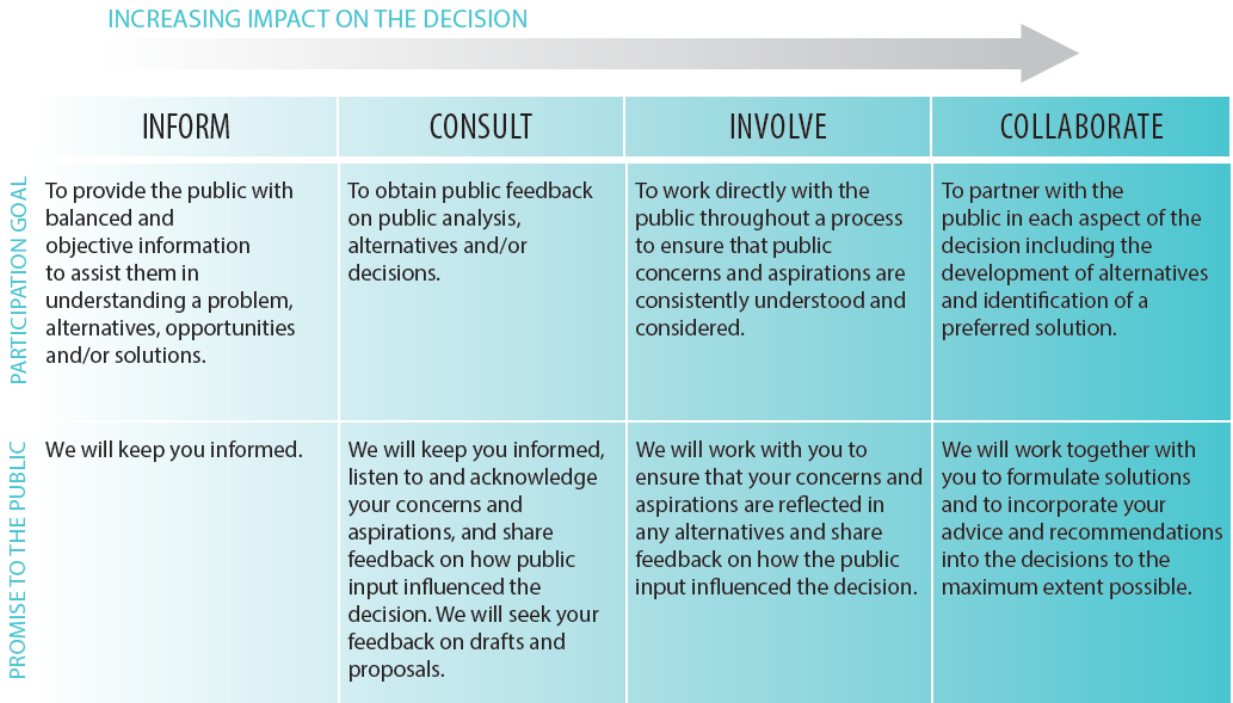
Planning Board – Provides key direction on the development of options periodically. Will make a recommendation to City Council on the final code changes.

Appendix: Engagement Framework

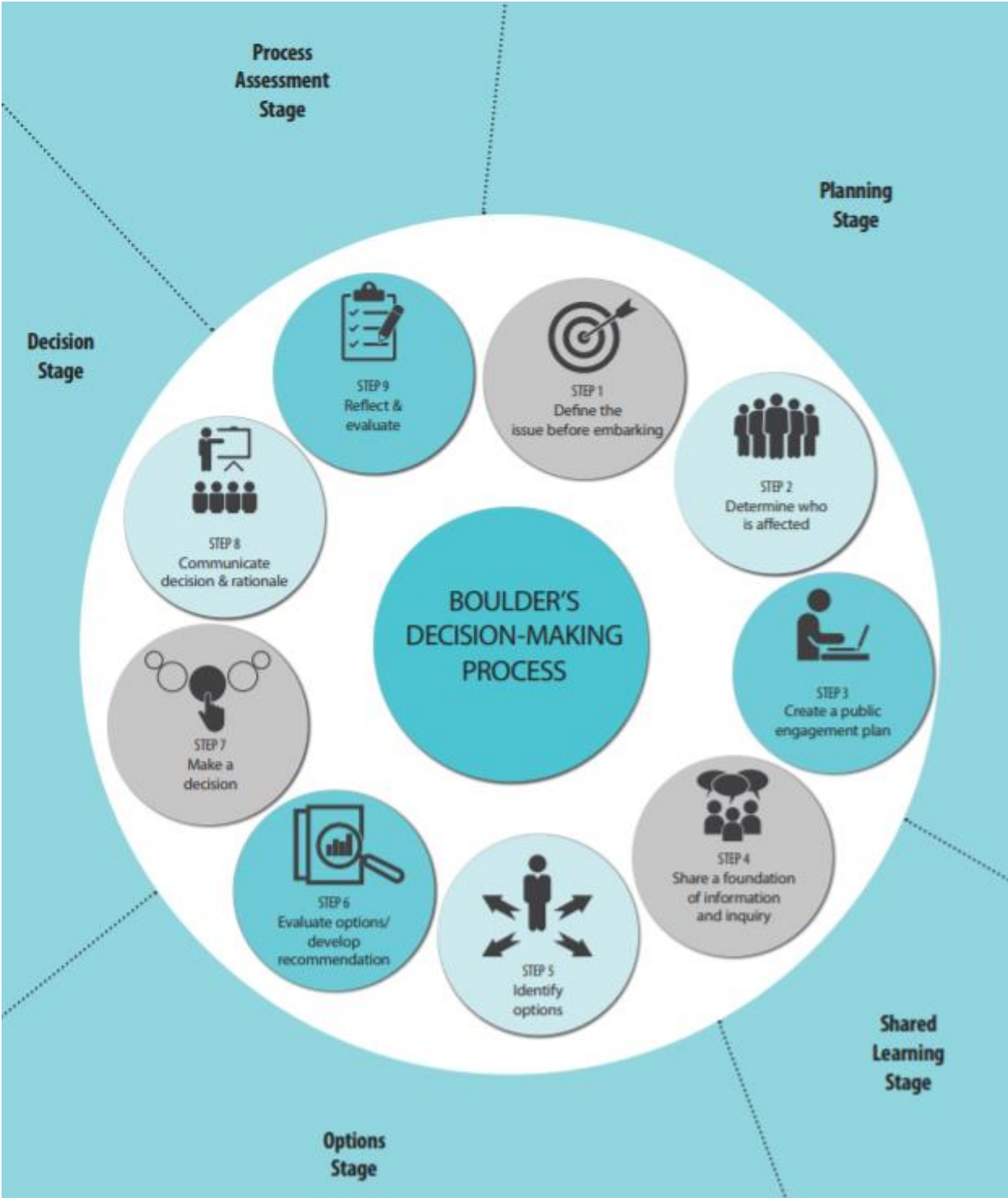
City of Boulder Engagement Strategic Framework

BOULDER'S ENGAGEMENT SPECTRUM

The city will follow a modified version of IAP2's engagement spectrum to help identify the role of the community in project planning and decision-making processes.



Boulder's Decision Making Process



Current Wildfire Mitigation and Wildfire Hardening Work

In Fall 2024, city staff compiled a list of work being done related to wildfire. Short descriptions have been provided to summarize the work currently underway. More information is available by contacting each department.

Strategic Partnerships

These partnerships apply to multiple departments:

- **Boulder County Fireshed:** In 2020, the city signed an MOU with local, state, and federal stakeholders to develop a shared vision for the future of forest and wildfire management in the “Boulder County Fireshed.” City staff are also in regular communication and partnership with a large host of groups working on fire resilience, such as the Noco Fireshed, the Watershed Center, the Boulder Watershed Collective, Colorado State Forest Service, Ember Alliance, St. Vrain and Lefthand Water Conservancy District, U.S. Forest Service (USFS), Natural Resources Conservation Service (NRCS), and The Nature Conservancy (TNC).
- **Fire Response Agreements:** Fire response is bolstered by agreements with fire protection districts that have city-owned and managed lands in their response areas. It is a part of the agreement that each district provides fire service to the identified city-managed lands. When an incident starts, incident response begins at the local level and expands as the capabilities of the local agency are forecasted to be exceeded. The city has staff who participate on the city/county Boulder Incident Management Team, further enhancing its capacity to respond effectively to wildfire incidents. Should an incident be forecasted to expand beyond the capabilities of the County, additional resources can be requested at the state, regional, and federal levels.
- **Xcel:** Many city departments are now reviewing Xcel’s Wildfire Mitigation Plan.

City Manager’s Office

Current Policy or Implementation Work

- The Economic Vitality division of the City Manager’s Office continues to work with businesses and partner organizations to enhance disaster preparedness, response,

and recovery. The Boulder Small Business Development Center (SBDC) has received funding through a U.S. Economic Development Administration (EDA) grant to develop disaster preparedness and recovery workshops, coaching, and other programs for small businesses. The city is working with the Boulder Chamber to document best practices and lessons learned from the collaborative response to the pandemic and other disasters, and to develop a framework for a more consistent and coordinated approach to helping businesses respond to and recover from disasters and major disruptions.

- 5-Year Wildfire Action Plan

Existing Education Programs

- Boulder SBDC business preparedness workshops and consulting
- Boulder SBDC business recovery webinars

Existing Partnerships

- Boulder Chamber
- Boulder SBDC
- Downtown Boulder Partnership
- The Latino Chamber of Commerce of Boulder County
- Visit Boulder

Climate Initiatives

Current Policy or Implementation Work

- Review and commenting on Xcel's Wildfire Mitigation Plan
- Developing landscape and maintenance guidelines for residential properties incorporating biodiversity and overarching climate resilience
- Developing trainings for residents and landscape contractors
- Members of Wildfire Core Team

Existing Education Programs

- Informal partnership on education between Community Risk Reduction and Cool Boulder to educate Cool Boulder community partners and broader community via Cool Boulder Partner meetings and tabling at community events

Existing Partnerships

- Internal Partnerships
- Community Risk Reduction Team (Boulder Fire – Rescue)

- Parks and Rec Urban Forestry
- OSMP
- Community partnerships via Cool Boulder: Boulder Watershed Collective, PLAY Boulder, Eco-Cycle, Butterfly Pavillion, CU, informal partnership and collaboration with Wildfire Partners

Notes

- Planning to develop incentive programs around appropriate landscaping including native plants

Community Vitality

Current Policy or Implementation Work

- Community Vitality is partnering with Climate Initiatives and Xcel Energy to prioritize undergrounding of electric powerlines within and serving the Central Area General Improvement District (CAGID). The CAGID fund is supporting this effort through an on-going CIP project allocating \$500k per year through 2030.

Existing Partnerships

- In coordination with the City Manager's Office – Economic Vitality, Community Vitality is working with the Small Business Development Center (SBDC), Downtown Boulder Partnership, and the Boulder Chamber to help educate small business owners on emergency preparedness and disaster resilience strategies including ways to prevent and mitigate wildfire impacts.

Finance

Existing Incentive Programs

- **Wildfire Resilience Assistance Grants Program:** Established and launched a Wildfire Resilience Assistance Grants Program to help eligible homeowners cover costs associated with mitigation. This new grant program complements the detailed home assessment program. Specific community outreach and communications are now being disseminated to promote and build interest in this new assistance program and is already generating interest from homeowners.

Notes

- Hired Grants Analyst Role

Fire-Rescue

Current Policy or Implementation Work

- **Staff, Equipment, and Training for Response:** All firefighters are required to complete a structure fire academy that also includes forty hours of wildland firefighting training. Additional wildland and incident management qualifications are obtained through completing additional classroom training and field deployments to actual incidents. Annually, firefighters participate in approximately sixteen hours of wildland specific training. The department invests 1,600 hours of Wildland training for firefighters annually. In 2021, a \$100,000 investment was made to ensure all Boulder Fire-Rescue personnel had individually issued wildland firefighting personal protective equipment.
- **International Wildland-Urban Interface Code (IWUIC):** The City of Boulder routinely adopts and enforces a full set of codes that regulate buildings and construction in the city (see Boulder Revised Code Title 10). Most of these codes are based upon model building codes developed by the International Code Council (ICC), with local amendments to address issues specific to the Boulder community. An example of local amendments is the citywide prohibition of wood roof coverings and the requirements for Class A (most restrictive) roofing requirements.
- **Community Wildfire Protection Plan:** Updated the Community Wildfire Protection Plan in June of 2024 and staff are now developing a detailed, prioritized workplan for implementing the CWPP and its recommendations that will detail work into 2025 and beyond. This implementation plan will also incorporate recommendations and actions called for in other city plans related to Wildfire resilience.
- **Structure Protection Plan (SPP)**
 - This document was produced to assist in the development of objectives, strategies, and tactics in protecting structures in and immediately adjacent to the municipal boundary of Boulder. The SPP also provides guidance on ordering and placement of structure protection resources. While no document can replace the training, practice, experience, and judgment of qualified fire professionals, this structure protection plan serves as a starting point. It provides a common operating picture for all resources assigned to protect structural values within the city. This document also outlines contingency actions and resources needed to defend structures. It is important to remember that these structure protection resources are not the only resources required during a wildland incident. The best way to protect structures is to control wildland fires when they are still small.
 - Resources will need to be shifted between suppression and structural protection duties based on current fire conditions and the judgment of either

the incident commander or the operations section chief. This document is an intelligence packet that assists incident commanders, operations section chiefs, structural protection specialists, division supervisors, group supervisors, taskforce leaders, and strike team leaders in formulating a plan based on current fire conditions, forecasted weather conditions, and available resources. It should not be thought of as a cookbook of what must be done, but what could be done. Wildland firefighting and structural protection/defense requires judgment based on many years of actual firefighting experience. Boulder Fire-Rescue's Wildland Division creates operational pre-plans called Structure Protection Guides all along the Boulder Wildland Urban Interface (WUI).

- New T3 engine for deployment/upstaff (BFR)
- RAWs weather stations and plan – fire danger indices based dispatching.
- IMT coordination and management
- Enhance emergency notification capabilities – ReachWell and keyword rollout

Existing Education Programs

- **Detailed Home Assessment Program:** Ongoing education program with emphasis on homes in the Wildland Urban Interface area. Community outreach and communications have been developed and are being disseminated to build greater awareness and interest in the program.
- **Curbside assessments:** Curbside assessments are completed by uniformed Fire personnel during business hours from the viewpoint of the street, sidewalk, or public property, and they do not access private property.
- **Disaster preparedness and recovery workshops:** Led disaster preparedness and recovery workshops.
- **Fire response trainings:** Coordinated continued trainings for the dozens of city staff who participate in fire response.

Innovation & Technology

Existing Education Programs

- Support for curbside assessment mapping tool

Office of Disaster Management (City/County)

Current Policy or Implementation Work

- **Urban conflagration draft plan:** Completed the Urban Conflagration Draft for the Fire Department: This plan focuses on three scenarios (1) wildfire outside the city, fire department support, no immediate threat, (2) a wildfire is advancing and threatening the city causing the implementation of the structure defense plan, and (3) a wildfire has entered the city now causing an urban conflagration scenario.
- **Evacuation planning:** Currently working with the Police Department on the next generation of evacuation planning. The first version identified primary evacuation routes across the city and developing polygons across the city. The 2.0 version of evacuation planning is mostly completed and includes developing evacuation operational details for each polygon along the western edge of the city. Each polygon includes the number of officers required to complete door to door evacuations, evacuation routes and the traffic control points including the number of the officers to staff each location. Working with City GIS staff to develop an evacuation / conflagration operational decision assistance platform to incorporate the urban conflagration and evacuation work into the design.
- **Integrated incident alert mapping:** City & County GIS Teams along with both the city 911 Dispatch Center and Sheriff's 911 Dispatch Center integrated the alerting polygons in Everbridge to automatically load on the Boulder ODM website public facing map. This is for all types of incidents flood, fire and police activity.
- **Messaging service:** Keyword messaging platform implemented which is an Everbridge service that allows Public Information Officers to message the community using text messaging.
- **RSET:** A Required Safe Evacuation Time (RSET) was developed for each evacuation polygon to provide an operational planning assumption for decision making during a wildfire. The RSET used traffic modeling to determine the clearance time for each alerting polygon.
- **Modeling evacuation decisions:** Wildfire evacuation decision points were developed for the western side of the city using a basic wildfire modeling technology for 1 hour and 2-hour time limits to assist with gauging when to call for evacuation orders.
- Develop resident education program – ODM outreach materials and info sharing with Preparedness Coordination Hub
- Public Education – ongoing within CRR team – started but continues to be developed

- Enhance emergency notification capabilities – ReachWell and keyword rollout
- Translations of docs into 5 languages
- Develop and distribute public education and outreach materials concerning evacuation - Disaster Preparedness Basics Workshops, and educational materials

Existing Partnerships

- **C-4 Working Group:** Continuing to facilitate a Command & Control, Communications, and Coordination (C-4) Working Group. This group brings law enforcement, fire departments, EMS and hazardous materials team members together once a quarter to address incident command, operational and communications gaps and programs.

Open Space & Mountain Parks

Current Policy or Implementation Work

- **Wildland Urban Interface Perimeter mowing:** OSMP successfully launched a perimeter mowing program in 2024 along large stretches of open space bordering the built environment on the city’s west side with a goal of reducing fuel loads within the Wildland Urban interface.
- **Forest thinning and health efforts:** OSMP’s forestry crew capacity has recently been expanded to enable year-round forest treatments and actions. On average, OSMP is able to “treat” ~100-200 acres of forest per year at multiple locations. Recently enhanced forest crew staffing, training and equipment for OSMP forest operations
- **Grazing fuel reduction:** Expanded targeted grazing efforts on open space along Shanahan Ridge to control the spread of invasive Tall Oatgrass. Grazing of over 500 acres here reduces fine fuel loads near city limits.
- **Prescribed burns:** Completed Flatiron Vista prescribed burn plan that covers 2000 acres, and working on a South Boulder Creek prescribed burn plan that covers close to 3000 acres. Working to identify and address the unique challenges and set of rules and regs to implementing a more aggressive prescribed burn program. This work led city staff to testify at a Legislative Wildfire Matters Committee on the need for prescribed burn flexibility. Despite these challenges, city staff led several prescribed burns along ditch corridors on city agricultural lands in 2024.
- **Weeds:** Non-native species management throughout OSMP lands.
- **Native Plants:** Native plant seed collection and propagation.

- **Coordinated WUI neighborhood projects:** Landscape fuel management and home hardening at Sans Souci mobile home park.
- **OSMP Department Operations Center Plan (DOC):** The model OSMP adopts during a wildfire or other complex emergency when the ordinary organizational structure of the department is unequipped to meet the demands of the situation.
- **Fuel Breaks:** Complete landscape level fuel break in Sunshine/Anemone/Boulder Canyon area
- **Ditches:** Added capacity to focus on decreasing fire fuel loads within high priority ditch corridors. Hired a ditch fuels specialist; completed a study of ditch fuel mitigation opportunities; supporting ditch burns and ditch fuel removal.
- **Wildfire Resilience Program Manager:** The cross-departmental Wildfire Resilience team hired a Wildfire Resilience Program Manager to identify, prioritize, cost, sequence and schedule all the city's wildfire resilience actions and efforts over the next 5 years.
- **Evacuation and Response:** Improved ingress/egress along Chapman Drive and Flagstaff Road
- **OSMP buildings:** Home Ignition Zone work around OSMP Cherryvale campus building and solar array, ERTL building and Harf barns
- **Grants:** Forest Restoration & Wildfire Risk Mitigation grant and state and federal grants for weed management.
- **Research:** Marshall Fire fire effects monitoring report. Funded research on grassland fire management.
- **Dinosaur Fire:** Supported incident response to the Dinosaur Fire, including evacuations, closures, coordination, supply fire fighters, and recovery/restoration efforts.

Existing Education Programs

- **Web communications:** [Open Space Wildfire Risk Management | City of Boulder](#)
- **Education and Outreach:** Studied best practices in climate change and wildfire messaging; completed public programming on climate wildfire. One-day volunteer events, guided hikes, NCAR fire education program, outreach at Farmer's Market and similar venues using themed interpretive tables, classroom/student programming, etc.

Existing Regulations or Enforcement

- Rules and regulations:
- No smoking, fire, fireworks, or camping on OSMP land.

- Curfew: Most OSMP parking lots are closed to vehicles between 11 pm and 5 am. Chapman Drive Trailhead is closed dusk to dawn. All trailheads and parking areas along Flagstaff Mountain are closed 9 pm to 5 am,
- Increased presence of uniformed staff in the field.
- Physical closure of all grills and fire places.
- Improved regulation signage.

Existing Partnerships

- Help facilitate City of Boulder Wildfire Core and Executive team, representing seven city departments.
- Ditch companies
- Cisterns: Coordinating with Mt View Fire to develop cisterns at the Marshall Mesa Trailhead.
- Boulder Watershed Collective
- The Watershed Center
- Wildfire Partners

Parks & Recreation

Current Policy or Implementation Work

- **Public Tree Inventory:** The public tree inventory was completed in spring 2024. The contractor also gathered location information on shrub-form junipers to create an inventory for the park system. This inventory will help inform future project identification and scoping to mitigate potential risks associated with this high-risk vegetation.
- **Pilot HOA mowing project:** Consistent with city policy and the Boulder Revised Code, BPR does not allow private individuals to perform maintenance work on parkland. This includes mowing. In 2024, BPR partnered with an HOA in Wonderland Lake to allow the HOA to perform mowing activities on parkland. This provided mutual benefits: 1) community members' whose homes were built with 0' setbacks could manage vegetation in the most critical 5-10' from their structure, 2) the city can manage capacity working with a single organization, rather than multiple individual homeowners, and 3) the HOA could provide proof of the required insurance to conduct work on city property.
- **Mile High Youth Corps Pilot Project Community Fuels Removal:** In 2023, Climate Initiatives, BFRD, and BPR partnered together with the Boulder Watershed Collective and Mile High Youth Corps to do wildfire mitigation work across the city. Several partner HOAs were identified, as well as a juniper removal project from

Wonderland Lake Park. A specific line of junipers was identified near the playground area of Wonderland Lake Park as it was directly on the private property line and was within 30' of the private structure. Mile High Youth Corps removed the junipers in fall 2023 and a group of volunteers from Boulder County Youth Corps replanted the area with water-wise and fire resilient plants in spring 2024.

- **Urban Forest Strategic Plan:** The Urban Forest Strategic Plan was completed in 2018. While not called out as a wildfire resilience strategy, rotational pruning of urban trees, as well as removing dead and dying trees, functionally reduces fuel loads throughout the city. Treatment and removal of trees impacted by diseases and pests also removes fuel.

Existing Regulations or Enforcement

- Rules and regulations:
- No smoking, fire, fireworks, or camping.
- Prohibited items: propane tanks
- Park hours: 5 am – 11 pm
- No grilling in Eben G. Fine Park on July 4th
- Urban Rangers
- Assist in enforcing fire ban regulations when CMO issues an emergency rule
- Can include removal/wrapping of grills in parks

Planning & Development Services

Current Policy or Implementation Work

- **2024 ICC code adoption:** Reviewing the IBC and IRC and IWUIC for opportunities to incorporate additional wildfire hardening.
- **Wildfire hardening code update:** Reviewing wildfire hardening policies and codes for 2024-2025 City Council Priority.

The Comprehensive Planning division is currently conducting a major update to the **Boulder Valley Comprehensive Plan**. Two policies in the BVCP directly address wildfire mitigation and may be considered for revision during the update: 3.20 Wildfire Protection & Management and 8.09 Resilience in Public Safety & Risk Prevention.

Existing Regulations or Enforcement

- **Wildland Urban Interface Code:** The City first adopted the International Wildland Urban Interface (WUI) Code in 2013 and updated it in 2018. The purpose of the code is to protect public health and safety by regulating the use, condition, construction,

alteration, repair, and maintenance of buildings, structures, and premises within the wildland-urban interface areas in the city in order to prevent the spread of fire and risk of harm to persons and property from the intrusion of fire from wildland fire exposures and fire exposures from adjacent structures, as well as to prevent structure fires from spreading to wildland fuels. These requirements apply to properties in the mapped WUI areas, which currently includes approximately 4,700 properties.

- **eMapLink** public mapping application shows the WUI designations and the three ignition-resistant construction classes.
- In 2025, the city will implement new automation within the **EnerGov**, the city's land management and permitting system. This enhancement will notify applicants if their property is located within the Wildland-Urban Interface (WUI) during the application process, and streamline case routing for city review staff, improving efficiency in the permitting process.

Police

Current Policy or Implementation Work

- Boulder Police Department Policies and Procedures – General Order 242: Code Enforcement

Existing Education Programs

- The first step of Code Enforcement is education and notice to the involved property.

Existing Regulations or Enforcement

- The PD Code Enforcement Unit takes proactive and reactive enforcement for:
 - B.R.C 6-2-3 Growth and Accumulation of Weeds,
 - B.R.C. 6-2-4 Growth and Accumulation of Brush,
 - B.R.C. 6-2-5 Growth of Weeds or Brush as a Nuisance Prohibited,
 - B.R.C. 6-2-5(e) Noxious Weeds Prohibited, and
 - B.R.C. 6-6-2 Removal of Dead, Diseased, or Dangerous Trees.

Existing Partnerships

- Boulder Forestry Department, Boulder Fire Department, Boulder Pest Control Coordinator, Colorado Department of Agriculture.

Utilities

Current Policy or Implementation Work

- RL08 – Utilities key infrastructure in USFS WFDSS Database
- Devils Thumb watertank protection thinning
- Lakewood & Hydros trimming
- Juniper inventory around utilities infrastructure – inventory complete, 2026 to implement.
- **Wildfire Erosion and Sediment Transport Tool.** The city partnered with the Colorado Forest Restoration Institute to develop the Wildfire Erosion and Sediment Transport Tool. The pre- and post-wildfire planning tool allows the city to model hypothetical or actual wildfires in the source water watersheds to estimate potential post fire erosion and sediment transport to drinking water intakes, to identify effective in-stream and hillslope stabilization methods to minimize post-fire impacts, and to estimate cost for recovery.
- **Critical Water Infrastructure and Treated Water Delivery Capability Analysis.** The city imported critical treated water infrastructure locational information into the U.S. Forest Service’s wildfire fighting database. This may allow the U.S. Forest Service to better protect key water assets in the event of a wildfire. City staff also assessed water infrastructure risk in the WUI to evaluate several wildfire scenarios and understand available treated water delivery capabilities. The Utilities water system transmission study identified how treated water can most effectively be used in the event of a wildfire. Conventional water delivery systems are typically sized to fight structure fires, not wildfires
- **Water For Firefighting.** Water infrastructure systems are typically sized to fight urban structure fires, not wildland fires. Using realistic fire scenarios, in 2021 Utilities and Fire Department staff evaluated treated water system performance and ways to maximize potable water delivery in the event of a wildland fire. This evaluation concluded that the city’s treated water infrastructure performs well even under the high-stress, high-demand of the wildland fire planning scenarios. The evaluation identified several improvements, such as piping upgrades and water storage capacity improvements, that can be implemented over time to optimize and increase system performance. These are being considered as part of long-range planning for the capital improvement program. (For more information, see p. 9 of the Sept 2022 [Water/Utilities Resilience Information Packet.](#))

Additional Support

City Clerk's Office

- Central Records maintains contracts for the Wildfire Resilience Assistance Program Rebate agreements.

City Attorney's Office

- Support other departments that do wildfire work.

Peer Community Research: Wildland Urban Interface

City	BUILDING CODES			ZONING			
	IWUIC	OTHER ADOPTED CODE	OTHER CODE STANDARDS	ZONING: OVERLAY ZONE	ZONING - ADDITIONAL PLAN REQUIRED?	ZONING - APPLICABILITY	ZONING STANDARDS
BOULDER	Yes, 2018 IWUIC	-	-	No	-	-	-
ASHLAND, OR	No	-	-	Yes - Physical and Environmental Constraints Overlay	Fire Prevention and Control Plan Fuel Modification Area standards	Fire Prevention and Control Plan: preliminary plat, land partition, Commercial Site Design Review > 200 sf, Residential Site Design Review >3 units Fuel Modification Area: new buildings, increase of 200 sf lot coverage	Must address General Fuel Modification Area standards: Defensible space Firewise plantings Roofs Fences
AUSTIN, TX	Yes, 2015 IWUIC (adopting 2024)	-	-	No	-	-	-
BOISE, ID	No	-	-	Yes – WUI Overlay	Wildfire Safety and Mitigation Plan	All new structures and additions, GFA increase over 49%	Roofs Decks Siding Doors & Windows Eaves & soffits Chimneys & vents Defensible space Fences Grills, storage
CHAFFEE COUNTY, CO	Yes, 2021 IWUIC	-	-	No	-	-	-
COLORADO SPRINGS, CO	No	Fire Prevention Code and Standards	Fuels Management Roofs Structure Hardening – doors, windows, overhangs, vents, gutters, decks, walls, chimneys	Yes – WUI Overlay	Landscape Plan - Fire Code official approval required	Rebuild of 50% more exterior siding/covering/material replacement	Comply with Fire Code requirements Landscaping
DOUGLAS COUNTY, CO	No	Building Code - Wildfire Mitigation Standards	Wildland-Urban Interface and Wildland-Urban Intermix Analysis Fuel Modification Planning Roads, Streets, and Ways Emergency Water Supplies Structural Design and Construction (Roofs, vents, chimneys, etc)	Yes – WUI Overlay	Wildfire Hazard Assessment – must be prepared by performed by Douglas County Professional Forester	Building permits (for all residential and non-residential structures) Rezoning Site Improvement Plans Subdivision 35-acre and larger developments. Use by Special Review	Wildfire Mitigation and Forest Management Road and Street Design Driveway Design Road, Street, and Building Signage Emergency Water Supply Structural Design
EAGLE COUNTY, CO	No	-	-	No, but Wildfire Regulations in Land Use Regulations	Vegetation Management Plan	New construction, exterior modifications, additions Special Use Permit, Subdivision, PUD	New construction/modifications/additions: Minimum defensible space Construction standards Special Use Permit, Subdivision and PUD: Water supply and access Roadway standards Defensible Space
FORT COLLINS, CO	No	-	-	No	N/A	N/A	-
GOLDEN, CO	No	-	-	No	-	-	-

Attachment C - Peer Community WUI Regulations Summary Matrix

JEFFERSON COUNTY, CO	No	Special building construction regulations in Wildfire Zone 1	Ignition-resistant building materials Roofs Eave protection Gutters, downspouts Underfloor Decks Windows, Doors Vents	Yes – WUI Overlay	Defensible Space Permit, Wildfire Mitigation Site Plan by County qualified Wildfire Interface Fire Specialist	New structure, replacement, addition	Defensible space Fuel break thinning Access standards
LOVELAND, CO	No	Wildfire Risk Reduction modifications to International Fire Code	Building: roof, cladding, eaves, soffits, overhangs, projections, exterior doors & windows, attic vents, gutters downspouts, decks, walls, chimneys Fuels Management: landscaping materials, clearance, limbs, clearance, approved plants, fences	Yes – WUI Overlay	All construction permit submittals reviewed by fire code official	All new buildings, additions, and repairs, addition/replacement fences adjacent to parks etc, addition/replacement of final 4 ft of privacy fence, addition/replacement of landscaping and vegetation Except: 200 sf addition, 100 sf replacement of siding, one attic vent	WUI overlay Links to Fire Code Appendix O requirements
MARIN COUNTY, CA	No	California Building Code	Marin County Wildfire Prevention Authority, not county regulation	No	-	-	-
OURAY COUNTY, CO	No	-	-	No – but Wildfire Mitigation Regulations in Land Use Code	Wildfire Mitigation Building Permit Addendum Worksheet Defensible Space Plan	New dwelling units, additions, remodels, new accessory and ADUs, restoration/replacement, new PUDs	Roofing, Cladding/Siding, Vents, Screening, Chimney, Hardened zone, Exterior doors, access, addressing, gutters, defensible space, decks, fencing, eaves, structural projections, windows, driveway clearances
SOUTH LAKE TAHOE, CA	No	California Code and local Hazardous Vegetation and Defensible Space Ordinance	California Code – plus defensible space ordinance Duty to remove and abate hazardous vegetation, defensible space. Enforcement, penalties,	No	-	-	-
VAIL, CO	No	Various Town Code standards	Fire resistive construction Non-combustible or Ignition Resistant Materials Landscaping	No	-	-	-