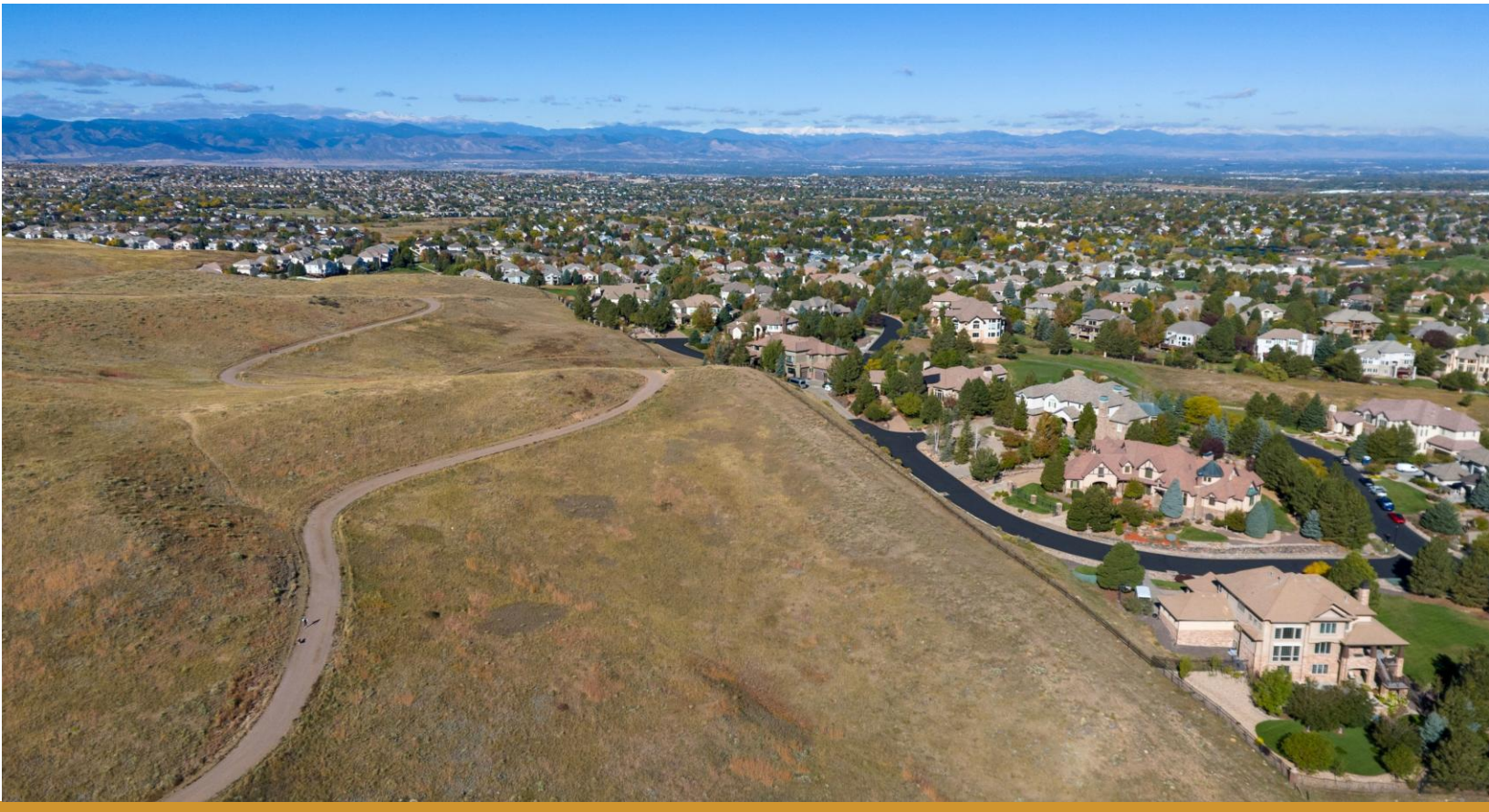
CITY OF LONE TREE

COMMUNITY WILDFIRE PROTECTION PLAN



MAY 2025

CITY OF LONE TREE

ADOPTION

The Colorado State Forest Service has reviewed this Community Wildfire Protection Plan, approved its content, and certified that it meets or exceeds CSFS Community Wildfire Protection Plan minimum standards. The planning group signatories below adopt the following plan.

Spencer Weston, Colorado State Forest Service — Date: 6/17/2025

Marissa Harmon, Mayor — Date: 6/17/2025

John Curtis, South Metro Fire/Rescue Fire Chief — Date: 6-17-2025

Seth Hoffman, City Manager — Date: 6/17/2025

Jill Welle, Douglas County Wildfire Mitigation and Resilience Coordinator — Date: 6/17/2025

Recommended by:

Arielle Cronin, Emergency & Risk Manager — Date: 6/17/2025

LONE TREE CWPP CORE LEADERSHIP TEAM

Name	Organization	Title	Project Role
Arielle Cronin	City of Lone Tree	Emergency and Risk Manager	Core Team
Spencer Weston	Colorado State Forest Service	Supervisory Forester	Core Team
Jill Welle	Douglas County	Wildfire Mitigation and Resilience Coordinator	Core Team
Dylan Williams	Douglas County	Wildfire Mitigation Specialist	Core Team
Chelsea Molitor	South Metro Fire Rescue	Community Risk Reduction Manager	Core Team
Dan Stutz	South Metro Fire Rescue	Emergency Manager	Core Team
Cullen O'Brien	South Suburban Parks and Recreation District	Assistant Director of Parks and Open Space	Core Team
Roshana Floyd	City of Lone Tree	Planning Manager	Core Team
Sam Waggener	City of Lone Tree	Code Compliance Supervisor & City Forester	Core Team
Bobby Weidmann	City of Lone Tree	Associate Planner	Core Team
Ian Corder	City of Lone Tree	Senior Long-Range Planner	Core Team
Denise Denslow	Rampart Range Metro District	Principal	Core Team
Nic Carlson	Rampart Range Metro District	Public Manager	Core Team
Meg Matonis	The Ember Alliance	Senior Wildfire Analyst	Partner

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INTRODUCTION

The Lone Tree Community Wildfire Protection Plan (CWPP) has been developed in response to the Healthy Forests Restoration Act of 2003 (HFRA) – a bill passed by Congress following the devastating wildfires of 2002. The act emphasizes community planning and prescribes a framework for communities to assess wildfire risks and develop plans to mitigate wildland fire hazards.

The HFRA emphasizes the need for federal agencies to collaborate with communities in developing hazardous fuels reduction projects, and places priority on treatment areas identified by communities through development of a CWPP. In compliance with Title 1 of the HFRA, the CWPP requires agreement among local governments, local fire departments, and the state agency responsible for forest management (the Colorado State Forest Service).

The HFRA also required the Colorado State Forest Service (CSFS) to establish minimum standards for development of CWPPs in Colorado, and the CSFS must approve any and all CWPPs to ensure they meet these minimum standards. Colorado's minimum standards for CWPPs can be reviewed at csfs.colostate.edu. Electronic files of approved CWPPs, in addition to educational and reference materials, can also be found on the CSFS website.

The Lone Tree Community Wildfire Protection Plan supplements the Douglas County CWPP, approved in 2022. This plan is consistent with the goals and strategies described in the Douglas County CWPP and provides further strategic and tactical direction specific to wildfire protection and mitigation for the Lone Tree community. Additionally, development of a CWPP for the Lone Tree community aligns with the strategic actions identified in Lone Tree's Comprehensive Plan, as well as the action items identified for Lone Tree in the Douglas County Regional Hazard Mitigation Plan.

Purpose

The purpose of the CWPP is to provide the community and stakeholders with an understanding of identified wildfire hazards in Lone Tree, as well as recommended actions and resources to mitigate wildfire risk. The CWPP includes a risk assessment of vulnerable areas, such as the Wildland Urban Interface (WUI), as well as natural areas that could influence fire behavior. Through the risk assessment, this plan outlines strategies and actions aimed at reducing the risk of wildfires and minimizing potential impact on the community. Ultimately, the CWPP is developed for the benefit of the community; through community engagement and public dissemination of this plan, the CWPP also serves as an educational tool aimed at raising awareness about wildfire risk and promoting community engagement in mitigation efforts.

Context and Background

The 2012 Waldo Canyon Fire in Colorado Springs was one of the first devastating fires to catch the attention of local government officials, as the fire burned quickly and dramatically into an established subdivision in the city. Nine years later, in December 2021, the Marshall Fire burned through numerous subdivisions near Boulder, shocking the country and devastating local

communities. Like so many jurisdictions in Colorado that contain high-risk areas in the Wildland Urban Interface (WUI), Lone Tree began consulting with South Metro Fire Rescue (SMFR) and Douglas County's Wildfire Mitigation and Resilience Coordinator to begin assessing wildfire protection options for Lone Tree in January 2022. In collaboration with SMFR, the City's Emergency Manager provided a joint presentation to City Council in March 2022 that provided an overview of Lone Tree's wildfire risk, as well as a brief synopsis of steps the City may consider to mitigate its wildfire risk. From there, a Core Team was established and the development of Lone Tree's CWPP began.

The City's 6 Big Ideas include a deep, active commitment to public safety (Big Idea #1) by fostering awareness and preparedness via citizen and staff engagement. Wildfire risk is discussed in the City's Comprehensive Plan as an environmental hazard, and the development of a Community Wildfire Protection Plan is identified as a priority goal for implementation. Wildfire Protection and Mitigation Planning is identified in the 2021 Douglas County Regional Hazard Mitigation Plan as Action Item #3 for the City of Lone Tree. The 2021 plan will be reevaluated in 2025, and it is the City's goal to complete this action item by the 2026 update.

In addition, the City has updated policies that aim to further protect the community from the risk of wildfire. In 2022, the City updated its open burn ordinance to more appropriately align with Lone Tree's WUI risk, and in 2023, the City updated zoning and subdivision codes, for the purposes of assessing wildfire risk of new developments and requiring further mitigation action for high-risk areas. An overview of these ordinances is included in the Current Policies and Programs section.

Process Development

This CWPP was developed collaboratively and led by a Core Team comprised of representatives of the City of Lone Tree (City), South Metro Fire Rescue (SMFR), Douglas County, the Colorado State Forest Service (CSFS), South Suburban Parks & Recreation District (SSPRD), and Rampart Range Metropolitan District (RRMD). The Core Team served as the primary decision-making group. Collectively, the team provided expansive and multidimensional input to the CWPP; in turn, this collaborative process strengthened the trust, working relationships, and partnerships among the agencies, and served to produce a plan that covers a wide base of perspectives and identification of potential problems.

Throughout the development of the CWPP, the Core Team sought to continuously hear from and work with the community through several different means of engagement. In Spring 2024, the City of Lone Tree conducted two surveys: a community survey, seeking feedback from individuals who live and work in Lone Tree and the surrounding area, and a Homeowner's Associations (HOA) survey, directed to Lone Tree HOA Board members and/or neighborhood representatives. Each survey attempted to capture the understanding and perceptions about wildfire resilience, fuel treatments, willingness and barriers to mitigate risk, and general preparedness for wildfires. Results of the surveys are discussed in the Education and Community Outreach section, and a summary of both survey responses can be found in Appendix D and E.

The CWPP Core Team and its partners also conducted boots-on-the-ground assessments, which included public land areas, such as the Bluffs, as well as working in conjunction with Lone Tree neighborhood groups, such as Montecito. Several members of the Core Team participated in these assessments, including representatives from Douglas County Wildfire Mitigation, Douglas County Parks, SMFR's Community Risk Reduction, SSPRD Parks & Open Space, City Forestry, and City Emergency Management.

The City, SMFR, and Douglas County also partnered with the Carriage Club HOA to offer a Neighborhood Home Assessment Day in June 2024. As led by SMFR's Community Risk Reduction team, 20 homes in Carriage Club received home assessments during the one-day community event. Each of the 20 homeowners also received their home's individual assessment results and additional wildfire protection resources.

Throughout the development of the CWPP, the Core Team partnered with the Ember Alliance, a Fort Collins-based nonprofit comprised of a team of wildland fire experts and practitioners, who offer wildfire-related training, resources, and planning services to communities and partner organizations across the country. Through funding provided by Coalitions and Collaboratives' (COCO) COCO AIM grant, the Ember Alliance provided up to 12 hours of consulting assistance for the Lone Tree CWPP, free of cost to the City. Following the approval of the CWPP, the City, members of the Core Team, and the Ember Alliance representatives will host at least two community workshops in Lone Tree, to provide an overview of the CWPP findings, recommendations, and resources available to support continued mitigation efforts. *The City of Lone Tree extends its thanks to COCO and Jonathan Bruno, COCO CEO, for the generous funding that supported the Lone Tree CWPP partnership with the Ember Alliance.*

GOALS AND OBJECTIVES

1. Understand the current wildfire risk level
    a. Conduct and analyze risk assessments within the study area
    b. Evaluate existing mitigation efforts for viability and effectiveness
2. Mitigate undesirable fire effects in the Wildland Urban Interface
    a. Identify community hazard reduction priorities
    b. Identify potential strategies to protect critical infrastructure and resources
    c. Provide residential mitigation strategies for implementation at property and neighborhood levels
    d. Collaborate with HOAs, land managers, special districts, and partner organizations to develop mitigation recommendations and strategies
3. Raise awareness and promote risk reduction through public outreach and education
    a. Seek community feedback through surveys and community engagement

b. Develop awareness and education campaigns

c. Provide tools and resources to support preparedness and empower the community to take action

LONE TREE OVERVIEW

About Lone Tree

The City of Lone Tree is a home rule municipality located within Douglas County. Incorporated in 1995, Lone Tree has approximately 15,000 residents and nearly 25,000 daytime visitors. Located south of Denver at an elevation of 5,948 feet, the City has established itself as a regional hub for economic growth, cultural and recreational amenities, and diverse retail options. Today's vibrant city can be attributed to strategic, long-range planning led by engaged elected officials, dedicated resident volunteers, highly skilled City staff, a business-friendly climate, and convenient access into and out of the city.

Over the next few decades, the city is projected to add nearly 30,000 new residents and 50,000 new employment opportunities. Consistent with the City's master plans, much of the growth will be focused on new commercial and residential development east of I-25, including a new 40-block City Center. As the city grows, it will maintain high standards for the built environment, retain access to open space, and continue to implement innovative and sustainable development practices.

The Bluffs Regional Park

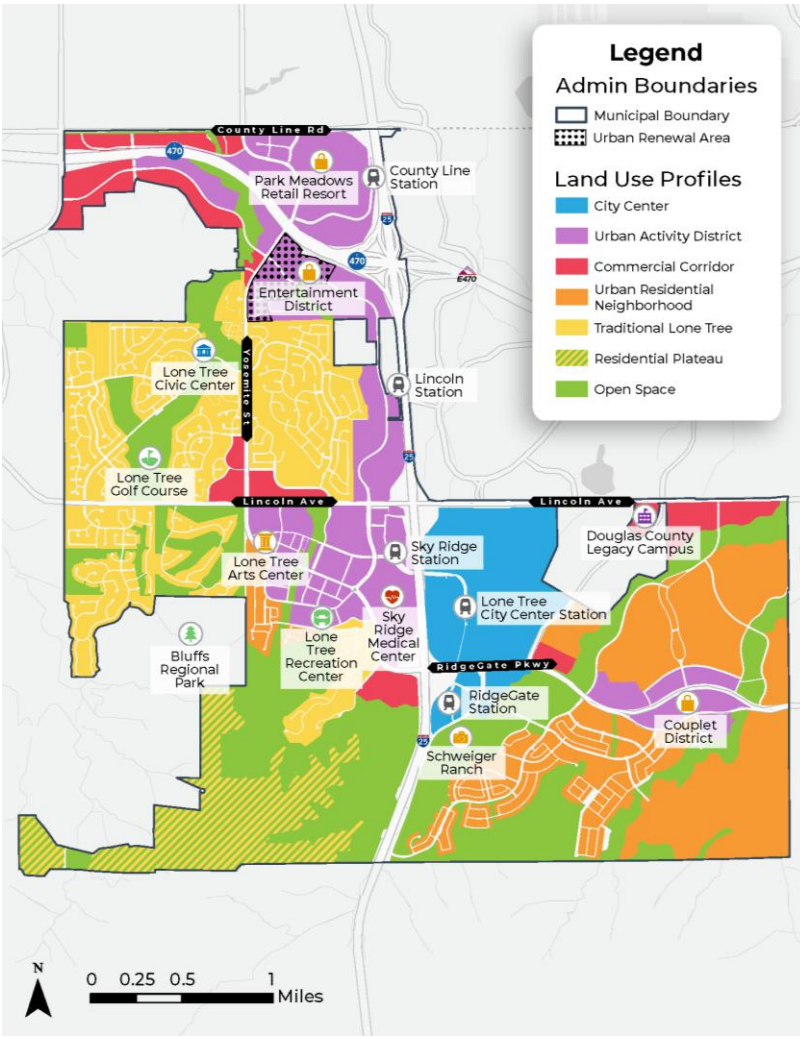
Positioned along the southern edge of the Denver metropolitan area, Lone Tree is central to several high-volume transportation networks, including major highways of I-25, C-470, and E-470, light rail, and Centennial Airport.

South of the City's boundaries are the Bluffs Regional Park & Trails, managed by Douglas County. The Bluffs is a popular open space area characterized by its gently rolling terrain and predominant cover of native grasses, shrubs, and a few pockets of trees near drainage corridors. The park features a mix of shortgrass prairie and foothill grassland ecosystems; common native grasses found in the Bluffs area include blue grama, buffalograss, western wheatgrass, and little bluestem. Additionally, the park has sagebrush, yucca, littleleaf mountain mahogany, snowberries, and wildflowers, such as prairie coneflower, that thrive in the dry, semi-arid environment. While there are some non-native grasses and plants, the landscape and vegetation (fuel) remain predominantly characterized by

native grasses. The Bluffs open space area has a trail network that also serves as fuel breaks – breaks in the vegetation that slow or stop the spread of wildfire by reducing available fuel (vegetation) and creating barriers for fire suppression efforts.

The area of Lone Tree west of I-25 is largely developed, with some remaining infill opportunities. It features a mix of residential, commercial, institutional, and recreational land uses. This area is home to major corporate campuses and employment hubs, such as Charles Schwab, Kiewit, and HCA HealthONE at Sky Ridge Medical Center. Additionally, it boasts a strong retail market, with key destinations including Park Meadows Retail Resort, Cabela's, and Target, drawing thousands of daily visitors.

East of I-25, development is progressing as part of the RidgeGate Planned Development, designed to accommodate a diversity of land uses and varying levels of development intensity. This area includes commercial hubs, residential neighborhoods, mixed-use districts, and extensive parks and natural open space. Zoning supports everything from high-density urban centers to lower density residential and recreational areas. More information on Lone Tree's land use designations can be found in the 2025 Comprehensive Plan, accessible through the following link: cityoflonetree.com/planning-documents.



2025 Lone Tree Comprehensive Plan Update Land Use Map

Arapahoe County and the City of Centennial are north of Lone Tree. Positioned directly west of Lone Tree is Highlands Ranch, an unincorporated community within Douglas County. The Town of Parker lies to the east of the city and the City of Castle Pines to the south, along with areas of unincorporated Douglas County in both directions.

Neighborhoods

As of 2023, Lone Tree has one of the most diverse housing mixes in the metro area, with apartments, townhomes, and condos accounting for 54 percent of the city's roughly 7,000 housing units

and apartments, representing 40 percent of the total housing stock. There are 27 Homeowners Associations (HOAs) in Lone Tree, representing both single- and multi-family developments.

Special and Metropolitan Districts

The City of Lone Tree is served by several special and metropolitan districts, that each provide various public services and infrastructure. The City maintains close partnerships with the districts and these longstanding working relationships continue to place a high emphasis on a safe and resilient community.

Special Districts are single-purpose entities offering specific services; the primary special districts in Lone Tree include:

- South Metro Fire Rescue District: Provides fire protection and emergency medical services to Lone Tree and surrounding areas.
- South Suburban Parks and Reacreation District: Maintains parks, trails, and recreational facilities for residents of Lone Tree and neighboring communities.
- Lone Tree Urban Renewal Authority (LTURA): Focuses on economic redevelopment and revitalization projects within Lone Tree's Entertainment District.
- Mile High Flood District: Assists local governments in flood management, stream maintenace, stormwater and watershed planning, and continued research to support best practices.

Metropolitan Districts are quasi-municipal corporations often responsible for infrastructure, parks, and public improvements. The primary metropolitan districts in Lone Tree include:

- Park Meadows Metropolitan District: Provides landscaping, water, and other public improvements for the Park Meadows area, including maintaining medians and public rights-of-way.
- Rampart Range (RidgeGate) Metropolitan District: Manages services such as streetscapes, water and sewer infrastructure, and parks within its boundaries.
- Southeast Public Improvement Metropolitan District (SPIMD): Supports transportation and mobility improvements in the area.
- Omnipark Metropolitan District: manages public infrastructure and services within its boundaries.
- Heritage Hills Metropolitan District: responsible for constructing, operating, and maintaining public facilities, including street improvements, storm sewer systems, and park and recreation amenities.
- Lincoln Station Metropolitan District: oversees public infrastructure and services within its jurisdiction.

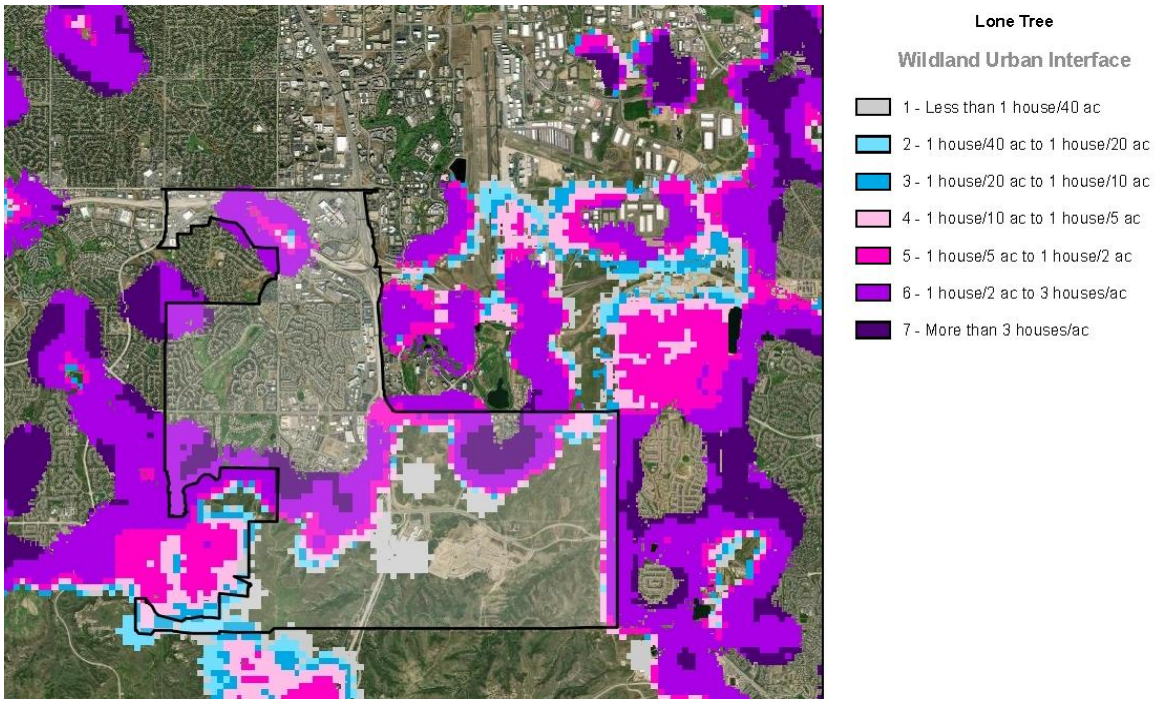
Water and Sanitation Districts manage water distribution and wastewater services. The following agencies provide water, sanitation, and water quality services in Lone Tree:

- Southgate Water and Sanitation District: Supplies potable water and wastewater services to portions of Lone Tree west of Interstate 25.
- Parker Water and Sanitation District: Serves primarily the eastern area of Lone Tree with water and wastewater services.
- Cherry Creek Basin Water Quality Authority: Tasked by the Colorado Legislator to preseve, protect, and improve water quality of Cherry Creek Reservoir and watershed.

Planning Area

The City of Lone Tree is 9.6 square miles, or approximately 6,144 acres. For purposes of the CWPP, the planning area is defined as areas within the Wildland Urban Interface (WUI), as defined by the Colorado State Forest Service's (CSFS) Colorado Wildfire Risk Assessment (CO-WRA) (co-pro.coloradoforestatlas.org). The CO-WRA indicates that 2,149 acres in Lone Tree are in the WUI. The CWPP planning area, as delineated by areas in the WUI, is shown in the following map, which reflects population and housing density. Areas of high population and greater density in the WUI increase the risk from wildfire due to a combination of human activity, structural vulnerability, and logistical challenges.

This CWPP is based on existing conditions of established developments in the WUI. New development – and any subsequent changes to the WUI – will be assessed and included in future updates to the CWPP.



CWPP planning area: the wildland urban interface in Lone Tree, as depicted by population and housing density. (CSFS CO-WRA, 2022)

Values at Risk

Values at risk are the intrinsic values threatened by wildfire that are important to the way of life of residents, businesses, and visitors in Lone Tree. Values include human development such as homes, outbuildings, infrastructure, businesses, and recreation facilities, but also include natural resources such as parkland, watersheds, air quality, wildlife, and ecosystem health. These values contribute to residents' feelings about their community and the environmental setting unique to Lone Tree. The Douglas County assessor valued the total values at risk in Lone Tree at approximately $8.52 billion in 2024.

Examples of values at risk from wildfire within the City include:

- Air quality
- Business and industries
- Community infrastructure
- Communication systems
- Watershed health and water quality
- Homes and neighborhoods
- Hospital and medical facilities
- Human welfare
- Local economies
- Municipal water supplies
- Natural vegetation
- Parks
- Recreation
- Historic properties and cultural resources
- Biological diversity
- Schools
- Transportation infrastructure
- Viewsheds
- Grasslands
- Wildlife and aquatic habitats
- Life safety
- Major thoroughfares
- Natural resources
- Commercial properties
- Tourism

Critical Infrastructure

As development, traffic, and daily visitors continue to increase in Lone Tree, its expansive critical infrastructures play a vital role in public safety, daily operations, and resilient response and recovery during emergencies such as wildfires.

Lone Tree's transportation network, including major routes like I-25 and C-470, and the RTD Southeast Light Rail Line, is essential for evacuation and emergency response. Protecting these transportation systems ensures mobility during wildfire incidents. Emergency services are also key, with facilities like South Metro Fire Rescue and the Lone Tree Police Department stations requiring wildfire-resilient access and defensible space to remain operational in crises.

The community's utility infrastructure, including electricity provided by Xcel Energy, water supplies, and telecommunications systems, is fundamental to emergency response and community

safety. Power lines in high-risk areas should be cleared of vegetation or insulated, while the water infrastructure must maintain adequate pressure and backup systems for firefighting.

Healthcare, educational, and other institutions with vulnerable populations must prioritize preparedness, as these facilities require additional time and resources for evacuation and protection. Such institutions in Lone Tree include Sky Ridge Medical Center, schools, daycares, Tall Tales Ranch, and the MorningStar and Reserve senior living communities. Community facilities such as the Lone Tree Recreation Center must also be safeguarded, as they may serve as evacuation shelters in an emergency. Retail hubs like Park Meadows Retail Resort and major corporate offices, such as Charles Schwab and Kiewit, must also have wildfire readiness protocols to protect employees and visitors. Furthermore, the city's hotels and hospitality sector require robust evacuation plans and fire mitigation measures.

Following the completion of this CWPP, the City will continue efforts on developing a formal evacuation plan. However, residents and community institutions are encouraged to build awareness of evacuation route options in their vicinity and prioritize preparedness.

Economics

The potential impact of wildfire on structure loss is significant. The recent Marshall Fire resulted in 1,084 homes destroyed and seven commercial structures destroyed. Estimates by the Boulder County assessor places total damage to homes at more than $513 million, making the Marshall Fire the costliest fire in Colorado's history (Boulder County, 2022). With fuel buildup in the grasslands and new homes built within the WUI, a wildfire of such proportions could have similar results in Lone Tree. Additionally, repairing and rebuilding infrastructure following a wildfire of such magnitude would be a significantly extensive and costly effort for the community and utilities. Wildfire and post fire closures to local roads and highways can impact travel in and out of Lone Tree. Temporary closures of businesses and reduced tourism affect local businesses and City tax revenues. Other potential economic impacts associated with wildfires include increased insurance costs for property owners and the potential for dropped policies and public safety power shutoffs (PSPS).

Current Policies and Programs

The City of Lone Tree has formalized policies and programs to advance community-wide wildfire risk mitigation efforts. In 2022, the City updated its open burn ordinance, to align more closely with and provide provisions appropriate to Lone Tree's urban setting and WUI risk. In 2023, the City also updated zoning and subdivision codes, for the purposes of assessing wildfire risk of new developments and requiring further mitigation action for high-risk areas. An overview of these ordinances are included below.

The City and SMFR also collaborate with community groups on individual wildfire mitigation efforts. The sub-area plan for the Retreat at RidgeGate community contains a wildfire mitigation obligation that includes requirements for ongoing Gambel Oak maintenance, a three-foot non-combustible perimeter around the base of all structures, and a restriction on wood fencing.

Lone Tree Open Burning Code

In 2022, Lone Tree City Council adopted Ordinance 22-03, updating open burning provisions of Chapter 7, Article 5 of the Lone Tree Municipal Code. Prior to this update, the City's code contained vague language, like "any outdoor fire"; Ordinance 22-03 provides updated definitions and regulations for open burning and additional fire types, creates terminology and regulations for recreational fires and portable outdoor fires, lists prohibited fuel types, and more closely aligns with the 2018 International Fire Code – the City's adopted fire code.

Under Ordinance 22-03, the updated definition of open burning is primarily identified as a fire burning materials other than wood, charcoal, or the intended liquid- or gas-fuel of a device, or one that has a total fuel area greater than three feet diameter and two feet in height. Along with this updated definition, the ordinance also states that any open burning requires a permit – both when no fire restriction is in place and under a Stage 1 Fire Restriction – as issued by South Metro Fire Rescue (SMFR). Open burning of any kind remains prohibited in a Stage 2 Fire Restriction.

The additional fire types, recreational fires and portable outdoor fireplaces, allow more practical options for an urban setting, while also mirroring the adopted Fire Code. For each of these fire types, the only permissible fuel types that can be burned without a permit are wood, charcoal, and the liquid- or gas-fuel designed for a device.

Lastly, the updated ordinance lists 10 materials that may not be burned at any time, even with an open burn permit; a list of prohibited materials is included below. Any material not mentioned in the ordinance as either a permissible or prohibited fuel type, such as yard waste or grass clippings, is considered open burning and requires a permit.

Prohibited Fuel Materials:

- Garbage
- Non-seasoned wood
- Treated wood
- Used or contaminated wood pallets
- Plastic products
- Rubber products
- Waste petroleum products
- Paints and paint solvents
- Particle board
- Any material not intended to be by a manufacturer for use as fuel in a device

More information on fire regulations in Lone Tree can be found in Chapter 7, Article 5 of the Lone Tree Municipal Code.

Lone Tree Wildfire Mitigation Zoning and Subdivision Codes

In July 2023, the Lone Tree City Council adopted changes to the City's Zoning and Subdivision codes for the purpose of assessing wildfire risk for new developments in Lone Tree. These regulations, adopted via Ordinance 23-06 (Zoning) and Ordinance 23-07 (Subdivisions) require new development applications for all development sites adjacent to open space and/or undeveloped

land to submit a wildfire risk assessment prepared by a Wildfire Mitigation Specialist. Depending on the assessment, developers may also be required to submit a wildfire mitigation plan as part of their development application, which may be used to apply additional wildfire protections to the new development. Additionally, the City prohibits the planting of plant species identified as "high risk" (e.g. Juniper, Austrian Pine) in developments in the WUI and/or in high wildfire risk areas.

Wildfire risk assessments must provide an appraisal of the site (to include the land and any existing structures or improvements) which assesses the likelihood of burning (burn probability) and the distribution of wildfire intensity in the event a burn occurs. Such an appraisal must also include an assessment of the impacts of fuel (to include vegetation and existing structures/development), historic weather conditions and climactic patterns, and topography on burn probability and wildfire distribution. The assessment must analyze the consequences to human life, health, property and the environment in the event a burn occurs on the site.

Wildfire mitigation plans for site improvement plans (SIPs) must identify measures designed to minimize the destructive effects of a wildfire to a development site and the surrounding area. The plan must address site design and function, use restrictions, building and furnishing/amenity materials to improve fire resistance, building and furnishing/amenity locations to reduce ignition risk, landscaping treatments, access and circulation, modifications to and maintenance of the Wildland Urban Interface (WUI) surrounding the site, and any additional design and use components deemed necessary by a Wildfire Mitigation Specialist, or that may be requested by the City.

Wildfire mitigation plans for subdivisions must address subdivision design and function, building materials to improve fire resistance, building locations to reduce ignition risk, landscaping treatments, access and circulation, utility location to reduce risk of ignition, water supply adequacy to support fire suppression, modifications to and maintenance of the Wildland Urban Interface (WUI) surrounding the site, and any additional design and use components deemed necessary by the referring Wildfire Mitigation Specialist, or that may be requested by the City.

Currently, two residential subdivisions have approved wildfire mitigation plans, both of which were approved by the City prior to its adoption of Ordinance 23-07. Although not as robust as the wildfire mitigation plans required by Ordinance 23-07, the two plans represent an acknowledgement of wildfire risk in the WUI and provide a foundation for wildfire risk mitigation efforts. The first wildfire mitigation approved by the City applies to the Retreat at RidgeGate, a single-family detached development located on the foothills adjacent to the Bluffs open space. This plan includes requirements to (1) maintain mow strips and to thin and low-limb Gambel oak stands, (2) utilize FireWise plants for foundation plantings and landscaping, (3) install non-wood Class B roofs or better, (3) restrict the use of wood fencing, (4) use retaining walls as fuel breaks, (5) maintain a three foot noncombustible perimeter around the base of structures and under roofs and decks, and (6) prohibit dumping yard waste in open space areas. Implementation of these requirements is supported via private covenants.

The second wildfire mitigation plan approved by the City applies to the Lyric neighborhood in RidgeGate, located north of the East-West Regional Trail and between the natural stream corridors

of Badger Gulch and Happy Canyon. The wildfire mitigation plan for Lyric includes (1) requirements to use FireWise plant species adjacent to foundations and for landscaping on properties adjacent to open space, (2) requirements to install non-wood, Class B or better roofs, (3) prohibiting dumping of yard waste on open space lands, (4) requirements to maintain a three foot noncombustible perimeter around the base of all structures and under all roofs and decks adjacent to open space, and (5) mow strip requirements for properties adjacent to open space. Implementation of these requirements is supported via private covenants, private design standards, and via license agreements between the City and the HOA to facilitate maintenance of the mow strips.

Education and Community Outreach

The City partners with South Metro Fire Rescue (SMFR) on education and engagement opportunities throughout the year. The City of Lone Tree maintains a wildfire mitigation page on the City website, that houses several resources for residents. Each May, the Lone Tree mayor signs a proclamation designating May as Wildfire Awareness Month, which is coupled with a month-long campaign of tips and resources for protecting homes. This campaign is distributed through City channels, such as social media pages, Timberlines e-newsletter, and the City website. SMFR also contributes to the monthly Timberlines e-newsletter, allowing residents to stay informed on wildfire mitigation throughout the year.

In 2024, the City, SMFR, and Douglas County partnered with Carriage Club HOA to offer a Neighborhood Home Assessment Day. As led by SMFR's Community Risk Reduction team, 20 homes in Carriage Club received home assessments during the one-day community event. Each of the 20 homeowners also received their home's individual assessment results and additional wildfire protection resources. Members of the CWPP's Core Planning Team also partnered with members of the Montecito HOA, to conduct a neighborhood-wide assessment and recommendations to reduce risk of wildfire.

Neighborhood Home Assessment Day at Carriage Club. Photo: SMFR

South Metro Fire Rescue Programs

Wildfire Home Ignition Zone (HIZ) Assessments/Education: SMFR works with homeowners and neighborhoods to design risk reduction strategies tailored to their unique neighborhood profile. Each neighborhood is different, and different approaches may have more impact based on the individual community's needs.

Risk reduction strategies may include:

- Neighborhood Home Assessment Day(s): SMFR partners with communities to offer homeowners a day to sign up for free in-person wildfire home ignition zone assessments. During the event, SMFR's team of wildland firefighters and/or Community Risk Reduction and

Fire Marshal's Office staff conduct wildfire home assessments for community members who have signed up ahead of time.

- Mailers, social media campaigns, or educational presentations on the home ignition zone or specific risks identified in the neighborhood that impact the community. The educational approach may vary by neighborhood, and SMFR's Community Risk Reduction Team will work closely with the neighborhood to determine a messaging strategy.

Steps to Safety: The NFPA Steps to Safety™ Prevent Fire and Falls at Home program pairs fire and EMS professionals with community partners to educate older adults about home fire and fall safety through group presentations. Classes can be requested through the South Metro Fire Community Risk Reduction website, www.southmetrocrr.org.

Home Fire Safety Presentations: SMFR's Risk Reduction Specialists provide home fire safety, lithium-ion battery safety, and wildfire preparedness presentations upon request for community groups, schools, businesses, older adults, and homeowners associations.

Third Grade Sound Off Home Fire Safety Program: SMFR is excited to offer in-person presentations to every 3rd grade classroom in the district based on the Sound Off with the Home Fire Safety Patrol curriculum. The program teaches children and families the different sounds a smoke alarm makes and what to do when you hear them. Sound Off also teaches how to plan and practice a home fire drill with everyone in your family. Visits are 45 to 60 minutes long, and our educators will do their best to work around your classroom schedule.

In addition to in-person presentations, SMFR also educates community members about top risks through their Community Risk Reduction website, www.southmetrocrr.org; this page can also be accessed through the main SMFR website, www.southmetro.org.

SMFR is continuously developing tools to engage the community, including several educational campaigns and events throughout the year, such as Wildfire Preparedness Day each May. The City will continue to work with SMFR and other partners, to expand outreach and educational opportunities to the community.

CWPP Community Feedback

In the spring of 2024, the City of Lone Tree conducted two surveys: a community survey, seeking feedback from individuals who live and work in Lone Tree and the surrounding area, and an HOA survey, directed to Lone Tree HOA Board members or neighborhood management representatives. Each survey attempted to capture the understanding and perceptions about wildfire resilience, fuel treatments, willingness and barriers to mitigate risk, and preparedness for wildfire.

The community survey was posted on the City's website, and announcements were sent out Citywide through the City's monthly email newsletter, *Timberlines*, and social media platforms. A total of 24 people participated in the community survey. Forty-two percent of respondents said they did not know the degree of wildfire risk in their property's area, and 33% of respondents said they understand the risk, but do not know what to do about it. However, when asked how willing they

would be to treat and reduce hazardous vegetation on their property, 54% of respondents said they would be willing to reduce hazardous vegetation as much as possible.

The HOA survey was sent directly to Lone Tree HOA/neighborhood representatives. A total of 12 people participated in the survey. Fifty percent of the HOA/neighborhood representative respondents said their HOA/neighborhood has made some effort to reduce risk and/or educate neighbors about wildfire risk, and another 50% of respondents said the HOA/neighborhood would likely be willing to reduce hazardous vegetation on HOA/community property as much as possible.

A summary of both survey responses can be found in Appendix D and E.

Lone Tree Elevated Comprehensive Plan Update

As part of the 2025 Lone Tree Elevated Comprehensive Plan Update, the City led a series of comprehensive community outreach efforts to identify and understand the community's vision for the future of Lone Tree. The community engagement included establishing a Steering Committee, comprised of residents, businesses, and members of the development community; a community survey that received over 500 responses from Lone Tree residents, businesses, visitors, partners, and other stakeholders; outreach at several community events and several stakeholder meetings with organizations in the community; and two community workshops.

Through this process, wildfire protection was identified as a priority to the community. The team then developed several objectives and strategic actions to meet the goals of the identified priorities. As it pertains to wildfire protection, the objectives and actions included in the Plan consisted of the following:

- Objective: Collaborate with property owners and stakeholders to develop programs and strategies to mitigate natural risks and hazards.
- Objective: Provide education to residents regarding strategies and practices to mitigate risks and prevent hazards (fire, wind, etc.).
- Strategic Action: Complete and implement a Community Wildfire Protection Plan in coordination with community partners, consistent with the vision, goals, and objectives identified in the Comprehensive Plan.
- Strategic Action: Develop landscaping and property maintenance standards to support water conservation, wildfire mitigation practices, and other public health and safety needs.

The City of Lone Tree's Master Plans, including the 2025 Comprehensive Plan, can be found at cityoflonetree.com/planning-documents.

LOCAL PROTECTION AND FIREFIGHTING CAPABILITY

South Metro Fire Rescue (SMFR) provides fire suppression services for the City of Lone Tree. SMFR currently operates 30 stations, located throughout the district. These stations are well equipped with fire suppression apparatus, in addition to medical and special team units (dive,

hazmat, technical rescue, air-craft rescue, and wildland). SMFR also maintains the following response resources:

- 23 Type 1 Engines
- 5 Ladder Trucks
- 4 Type 3 Engines
- 11 Type 6 Engines
- 7 Tenders
- 5 Battalion Chiefs
- 3 Wildland Team-Based Stations

South Metro Fire Rescue also has light and heavy brush apparatus spread throughout the district, specifically:

- Type 3 Stations - Stations 20, 39, 40 and 41
- Type 6 Stations – Stations 14, 17, 19, 21, 22, 33, 36, 42, 43, 46, 47
- Tender Stations – Stations 20, 36, 39, 40, 41, 43, 46

SMFR's firefighters receive wildland firefighting training while in the academy and maintain consistent baseline training through annual refreshers. SMFR also maintains a robust Wildland Team, with 90 team members maintaining higher levels of wildland firefighter training through the National Wildland Coordinating Group. Wildland Team members fully staff three wildland stations – stations 20, 39, and 41 – and are integrated into other stations throughout the district.

The combination of firefighter training, equipment, and apparatus forms a fully prepared department, ready and able to respond to wildland fire and almost any other emergency that may occur. While the department is well-trained and equipped, grass fires can spread rapidly. It is possible that a fire could impinge upon homes and outbuildings before the department has time to respond.

Fire Hydrants

The availability of fire hydrants is crucial for the fire district's ability to respond effectively to fires. Hydrants provide a reliable and immediate water source, allowing firefighters to quickly establish a continuous water supply to combat flames and prevent fire spread. Without accessible hydrants, response times may be delayed as alternative water sources, such as a tender or natural bodies of water, must be located and utilized, potentially leading to greater property damage and increased risk to safety. Well-maintained and strategically placed fire hydrants enhance firefighting efficiency, ensuring that emergency responders can act swiftly to protect communities.

The City of Lone Tree has adopted the 2021 International Fire Code (IFC) with local amendments as part of its building and safety regulations. The IFC contains comprehensive guidelines on fire

hydrant placement, distribution, and maintenance to ensure adequate fire protection. See Appendix F for a map of fire hydrant locations in Lone Tree.

Road System Accessibility

Road system accessibility is a critical factor in ensuring rapid emergency response and effective wildfire mitigation in Lone Tree. A well-planned road network allows fire apparatus, ambulances, and other emergency vehicles to navigate efficiently, reducing response times during wildfires and other emergencies. Key factors influencing accessibility include road grade and width, turnarounds, adequate clearance, and the ability to accommodate large firefighting equipment.

Ensuring that all roads, both public and private, meet fire department access standards is essential for community safety and an important component of the City's planning process. As part of this process, all subdivision design proposals are submitted to the Fire Marshal's Office for review and approval. The Fire Marshal's review includes all applicable provisions in the adopted International Fire Code and evaluates primary firefighter access, secondary access, and other design features that may impact emergency response during large-scale incidents, including wildfires.

Douglas County Helitack – Aerial Support

Douglas County contracts a helicopter to respond to wildland fires within Douglas County. This is a 153-day contract for a standard type 2 helicopter that typically runs from June through October, with the ability to extend if conditions warrant. It has a 300-gallon fixed belly tank and a 9-passenger capacity to deliver firefighters and water to fires. The contracted vendor supplies the helicopter, pilot, mechanic, fuel truck, and fuel truck driver.

The Emergency Services Unit (ESU) under the Douglas County Office of Emergency Management (OEM) manages and staffs the helicopter. The ESU is made up of 10 highly trained firefighters who respond with the helicopter, making it a very quick and efficient way to deliver firefighters to emerging incidents.

The helicopter will respond to any fire within Douglas County that has the potential to grow, or that is deemed a wildland urban interface fire. The decision to launch the helicopter is made by OEM/ESU staff. Once the decision to launch is made, the response time is anywhere from 5 to 15 minutes depending on the location of the fire.

Douglas County Helitak. Photo: Douglas County Office of Emergency Management

Douglas County also has a co-operator agreement in place, which allows the helicopter to be ordered through Pueblo Interagency Dispatch Center to assist on fires in neighboring counties.

WILDFIRE RISK ASSESSMENT AND ANALYSIS

The Colorado State Forest Service (CSFS) has developed the Colorado Wildfire Risk Assessment tool (CO-WRA) (coloradoforestatlas.org), which provides data for informed decision-making based on treatment priorities to reduce the risk from wildfire for each homeowner and the community as a whole. CO-WRA was used in the development of this CWPP to assess potential fire behavior in Lone Tree by incorporating fuel models, topography, and local weather patterns and conditions. The information included in this report is designed to provide the information needed to support the following key priorities:

- Identify areas that are most prone to wildfire;
- Plan and prioritize hazardous fuel treatment programs;
- Identify preferred non-combustible and low-flammability building and planting materials;
- Allow agencies to work together to better define priorities and improve emergency response, particularly across jurisdictional boundaries; and
- Increase communication to address community priorities and needs.

Wildfire risk represents the possibility of loss or harm occurring from a wildfire. Wildfires are unwanted and unplanned fires that result from natural ignition or unauthorized human-causes. Lone Tree works in close partnership with South Metro Fire Rescue, Douglas County, and other partner responding agencies to actively suppress all wildfire ignitions within Lone Tree and surrounding areas.

The wildfire risk assessment for the Lone Tree community considers a variety of factors that ultimately result in a hazard rating for the community. Community infrastructure risk is evaluated in terms of emergency response, defensibility, and structural flammability. Analyzing the relationship between expected fire behavior and the built environment in Lone Tree is the core of an effective community wildfire risk assessment. From this process, mitigation recommendations were developed that directly address the hazards and, if implemented, will greatly reduce the risk of loss from a wildfire for property owners and the community as a whole. Values at risk include infrastructure, structures, the local economy, and natural resources that are likely to suffer long term damage from the direct impacts of wildfire.

Wildfire Basics

A foundational element in mitigating risk is understanding how factors related to fuels, topography, and weather affect fire behavior.

Fuels: Vegetation is one of two primary fuels in Lone Tree (structures are the other). Different species of vegetation ignite and burn differently. Vegetation height, density, size, and moisture content also influence flammability. Some of those factors can change from day to day.

Topography: Fire typically burns faster uphill than downhill. Structures built above slopes with native vegetation face a higher risk from low-, moderate-, and high intensity wildfires than other homes. Gullies and canyons can funnel heated air upslope to create a chimney effect. Wind can eddy as it crosses ridges.

Weather: Precipitation, wind, relative humidity, lightning, and air temperature impact wildfire behavior. The dominant wind in our part of Colorado is from the southwest, but storms and fronts can change wind direction quickly. Weather patterns also are changing as part of the continent's climate change.

Wildfire History

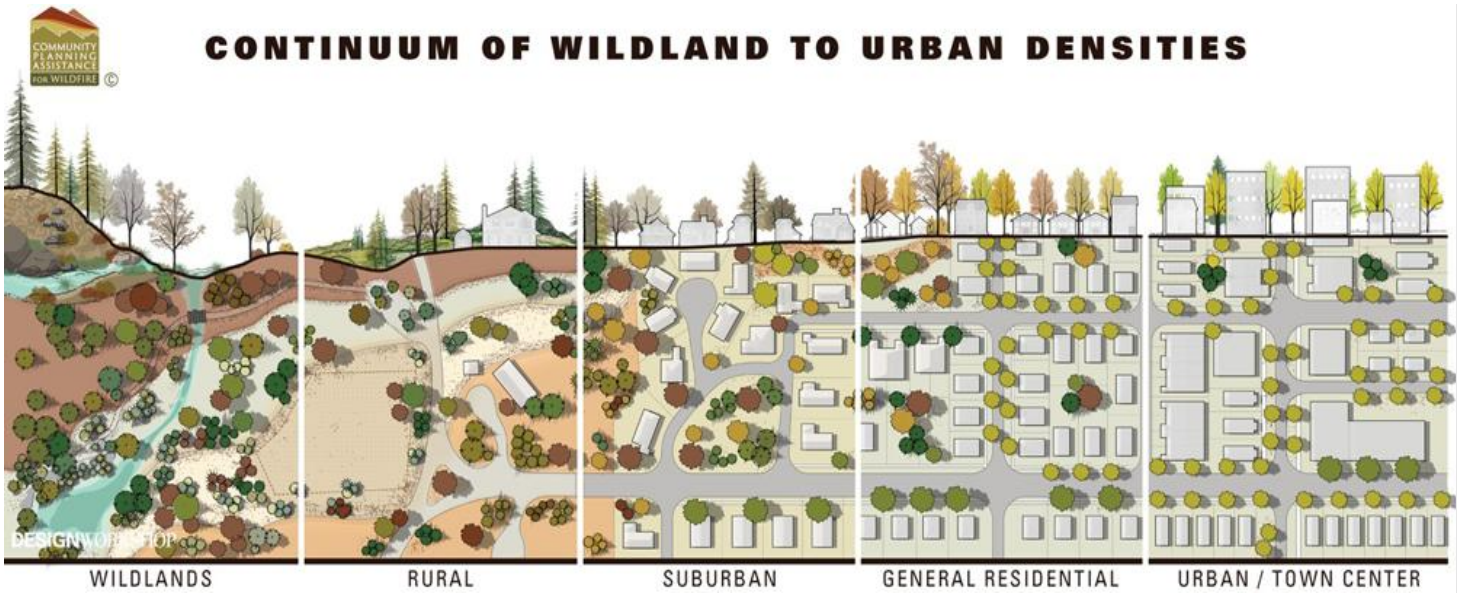
Between 2009 and 2024, SMFR recorded 91 wildland fires in Lone Tree. The vast majority of which were small, with 90 fires burning less than one acre and averaging 0.11 acres in size. Notably, one large fire in November 2020 burned 20 acres. Most of these incidents – 78 in total – were categorized as 'brush or brush-and-grass mixture' fires, reflecting the area's natural vegetation and wildfire potential. The remaining 13 fires were categorized as either 'grass' or 'natural vegetation, other' fires.

Importantly, 51 of the fires had recorded identified heat sources (the remaining 40 were undetermined), of which nearly all were human-caused – 46 of the 51 fires with identified heat sources traced back to activities such as discarded cigarettes, fireworks, open flames, matches, and equipment sparks. The 20-acre fire was recorded as an arcing incident, due to a faulty or broken conductor. Only one fire was attributed to lightning.

This data underscores the significant role that human behavior plays in local fire ignition. Simple actions – like properly disposing of smoking materials, refraining from using fireworks, and being cautious with open flames – can dramatically reduce the risk of wildfires. Lone Tree residents and visitors are urged to remain vigilant and take responsibility for preventing these avoidable incidents. By practicing safe habits and staying aware, the community can greatly decrease the number of fires and help protect homes, open spaces, and lives.

Wildland Urban Interface

Colorado is one of the fastest growing states in the Nation, with much of this growth occurring outside urban boundaries. This increase in population across the state will impact counties and communities that are located within the Wildland Urban Interface (WUI). The WUI is described as the area where structures and other human improvements meet and intermingle with undeveloped wildland or vegetative fuels. Population growth within the WUI substantially increases the risk from wildfire. WUI exists along a continuum of wildland to urban densities.



The wildland-urban interface continuum. Source: Community Planning Assistance for Wildfire.

Every fire season, catastrophic losses from wildfire plague the WUI in our country. Homes and businesses are destroyed, community infrastructure is damaged, and most tragically, lives are lost. Precautionary actions taken before a wildfire strikes often make the difference between saving and losing a home or business.

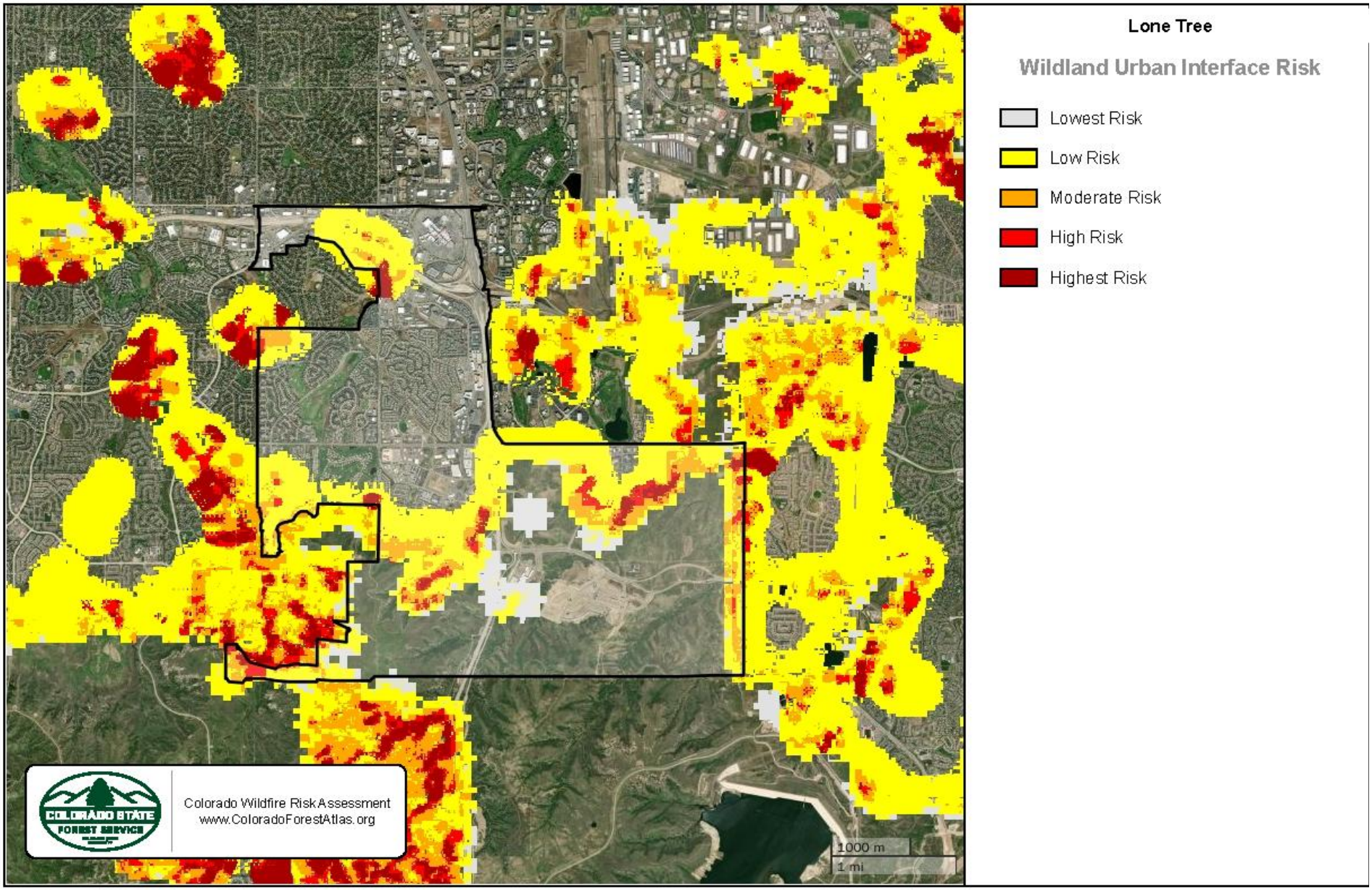
Wildland Urban Interface Risk

The following Wildland Urban Interface Risk graphics were developed by the Colorado State Forest Service (CSFS), as part of the Colorado Wildfire Risk Assessment (CO-WRA) (www.coloradoforestatlas.org), which depicts the potential impact of a wildfire on people and their homes.

Approximately 33 percent of Lone Tree's population (an estimated 7,152 people) live within the WUI, the area where structures and infrastructure interface with wildland vegetation. The CO-WRA indicates that 2,149 acres in Lone Tree are in the WUI, ranging from lowest to highest risk. The CWPP's priority risk classes are moderate risk (356 acres), high risk (118 acres), and highest risk (83 acres). Proactive wildland fire management is needed in the WUI to protect lives and other economic and ecological values.

The areas within the WUI contain land owned by, managed by, or located within the following: City of Lone Tree, South Suburban Parks and Recreation District, Douglas County, Park Meadows Metropolitan District, Rampart Range Metropolitan District, RidgeGate, Southgate Water and Sanitation District, Parker Water and Sanitation District, Schweiger Ranch Foundation, Bluffmont Heights, Carriage Club, Montecito, McArthur Ranch Metropolitan District, Retreat at Ridgegate, Heritage Estates, Prominence Point, Yosemite Commons (commercial), HCA HealthONE at Sky Ridge Medical Center, and Wheat Ridge Hotels LLC dba TownePlace Suites Denver South/Lone Tree.

The following CO-WRA map shows the wildland urban interface risk in Lone Tree.



Wildland Urban Interface Risk in Lone Tree (CSFS CO-WRA, 2022)

Wildfire Behavior Characteristics

Fire behavior characteristics are attributes of wildland fire that pertain to its spread, intensity, and growth. Fire behavior characteristics utilized in the CO-WRA include fire type, rate of spread, flame length and fireline intensity (fire intensity scale). These metrics are used to determine the potential fire behavior under different weather scenarios. Areas that exhibit moderate to high fire behavior potential can be identified for mitigation treatments, especially if these areas are in close proximity to homes, business, or other assets.

Wildfire Types

Wildland fires may be classified as ground, surface, or crown fires. Ground fire refers to burning/smoldering materials beneath the surface including duff, tree or shrub roots, punchy wood, peat, and sawdust that normally support a glowing combustion without flame. Surface fire refers to fuels burning on the surface of the ground such as leaves, needles, and small branches, as well as grasses, forbs, low and medium shrubs, tree seedlings, fallen branches, downed timber, and slash. Crown fire is a wildland fire that moves rapidly through the crowns of trees or shrubs.

When fire burns in the forest understory or through grass, it is generally a surface fire, or a more manageable fire. When fire burns through the canopy of vegetation, or overstory, it is considered a crown fire and much more difficult to manage. The vegetation that spans the gap between the forest floor and tree crowns can allow a surface fire to become a crown fire and is referred to as ladder fuel.

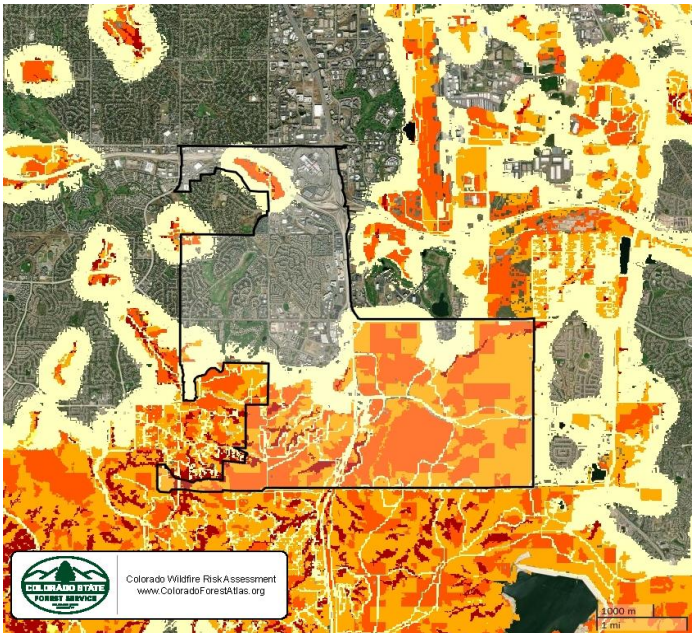
Surface fires are when the flaming front remains on the ground surface (in grasses, shrubs, small trees, etc.) and control is significantly more manageable than active crown fires.

Active **crown fires** are extremely difficult to control. Removing ladder fuels and reducing fuel loading near communities before a fire ignites is the best way to limit crown fire and reduce wildfire risk.

Rate of Spread

Rate of spread indicates the speed with which a fire moves in a horizontal direction across the landscape or community. Rate of spread is commonly expressed by chains per hour (ch/hr) or feet per minute (ft/min) – a chain is 66 feet, and one chain per hour closely approximates a fire spread of 1.1 feet per minute. The rate of spread in Lone Tree, as provided by the CO-WRA, represents the maximum rate of spread of the fire front.

Approximately 68 percent of the Lone Tree community is predicted to have a rate of spread ranging from moderate to high, with corresponding rates of spread from



Rate of Spread (CSFS CO-WRA, 2022)

approximately 720 to 3,600 feet per hour, or approximately 12 to 66 feet per minute. Approximately 3 percent of the community is predicted to have rates higher than 66 feet per minute.

This higher rate of spread is primarily due to the predominance of dry-climate grasses in Lone Tree. These grasses typically have a small diameter and low moisture content, making them highly combustible and capable of igniting quickly; however, grass fuels have burnout times of around 5-15 seconds, meaning a blade of grass will just as quickly burnout as it will ignite (Colorado State Forest Service, 2024).

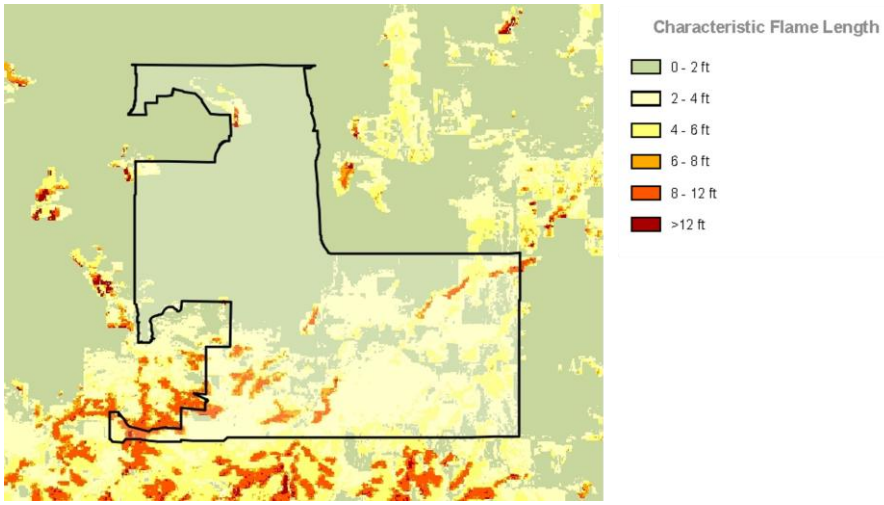
Flame Length

Flame length is defined as the distance between the flame tip and the midpoint of the flame depth at the base of the flame, which is generally the ground surface. It is an indicator of fire intensity and is often used to estimate how much heat the fire is generating. Flame length is typically measured in feet. Flame length is a fire behavior output, which is influenced by the same three environmental factors: fuels, weather, and topography. Weather is by far the most dynamic variable as it changes frequently.

A given fuel (structure or vegetation) can produce a flame length 1 ½ times its height. Thus, a bush that is 12 inches tall can produce a flame 18 inches in length; a tree that stands 12 feet tall can produce a flame 18 feet long. Shorter fuels produce shorter flames; shorter flames release less heat.

Firefighters are unable to engage any flame length greater than four feet with a direct attack because of safety concerns. A direct attack places firefighters along the head or front of a wildfire where they create a handline – a path down to mineral soil – in front of the flames to stop its growth. Longer flames generate more heat. When flames are longer than four feet, firefighters can use indirect attack techniques such as spraying water from further away or building a handline a distance away and burning out unburned fuels between their line and the fire. They also may be able to drive into the burned area and spray water from engine-mounted nozzles, depending on topography and other factors. Flames between four and eight feet in length can be attacked directly with bulldozers and air resources such as air tankers and helicopters. Flames longer than eight feet can be attacked directly by air resources alone.

Because development and grassland makeup the predominant landscape, the CO-WRA data predicts a low flame length of



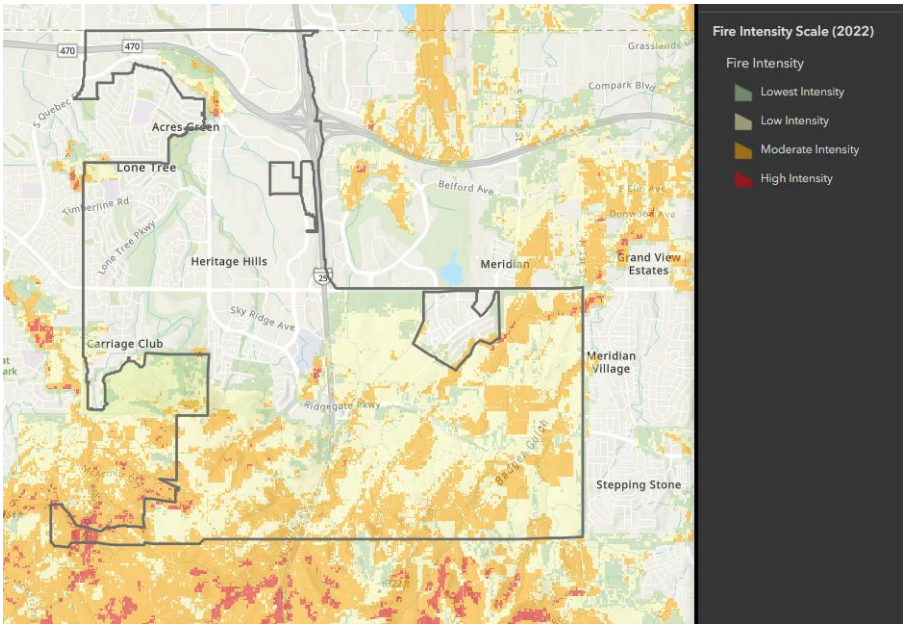
Flame Length (CSFS CO-WRA, 2022)

four feet or less for approximately 88% of Lone Tree, with nearly 8% of the area rated for moderate, four-to-six-foot flame length.

Fire Intensity

Fire Intensity Scale (FIS) specifically identifies areas where significant fuel hazards and associated dangerous fire behavior potential exist and is reflected by the flame length at the flaming front. The flaming front is the zone of a moving fire where the combustion is primarily flaming. Similar to the Richter scale for earthquakes, FIS provides a standard scale to measure potential wildfire intensity. The Fire Intensity Scale does not incorporate historical occurrence information. It only evaluates the potential fire behavior for an area, regardless of previous fires at a given location.

Fire intensity in Lone Tree is primarily low, with varies from moderate to high on nearly 35% of the land in Lone Tree. The current fire regime in the Lone Tree community is characterized by low to moderate intensity fires.



Fire Intensity Scale (CSFS CO-WRA, 2022)

FIS consists of five (5) classes, where the order of magnitude between classes is ten-fold. The minimum class, Class 1, represents very low wildfire intensities and the maximum class, Class 5, represents very high wildfire intensities.

1. **Class 1, Lowest Intensity:** Very small, discontinuous flames, usually less than 1 foot in length; very low rate of spread; no spotting. Fires are typically easy to suppress by firefighters with basic training and non-specialized equipment.
2. **Class 2, Low:** Small flames, usually less than two feet long; small amount of very short-range spotting possible. Fires are easy to suppress by trained firefighters with protective equipment and specialized tools.

3. **Class 3, Moderate:** Flames up to 8 feet in length; short-range spotting is possible. Trained firefighters will find these fires difficult to suppress without support from aircraft or engines, but dozer and plows are generally effective. Increasing potential for harm or damage to life and property.
4. **Class 4, High:** Large Flames, up to 30 feet in length; short-range spotting common; medium range spotting possible. Direct attack by trained firefighters, engines, and dozers is generally ineffective, indirect attack may be effective. Significant potential for harm or damage to life and property.
5. **Class 5, Highest Intensity:** Very large flames up to 150 feet in length; profuse short-range spotting, frequent long-range spotting; strong fire-induced winds. Indirect attack marginally effective at the head of the fire. Great potential for harm or damage to life and property.

Vegetation

The primary natural fuels of concern in Lone Tree consist of grasses, oak shrub, and other shrub variations. In the case of native grasses, ensuring the area within 30 feet of a home is mowed to a height of four inches or less is an effective treatment to reducing flame length and fire intensity. The fuels of most concern occurring near homes are juniper bushes and trees, as well as moderate to heavy loads of dry climate shrubs – principally Gambel or "scrub" oak.

Gambel or "scrub" Oak poses a significant wildfire hazard.

Oak brush, especially decadent or old growth stands, should be treated as potentially highly dangerous. Spring frosts that kill foliage can result in Gambel oak exhibiting extreme fire behavior through summer, as dead leaves remain on the shrub.

Surface Fuels

Surface fuels, or fire behavior fuel models as they are technically referred to, compute surface fire behavior characteristics, e.g. rate of spread, flame length, fireline intensity, and other fire behavior metrics. As the name might suggest, surface fuels account only for surface fire potential.

The CO-WRA surface fuel dataset depicts characterization of fire behavior across the landscape. Additionally, the urban and road custom fuel models included in the assessment are key for better characterizing the exposure, vulnerability and risk of both buildings and population in the WUI. This allows for better modeling of fire encroachment in urban areas considering the building density, community structure, and fuels surrounding the buildings and urban areas.

"Load levels" in this context refers to the amount of combustible material (fuel) present in a given area, which directly impacts the potential intensity and behavior of a wildfire; essentially, the higher the load level, the more fuel is available to burn, increasing the potential fire severity. "Fuel behavior" describes how that fuel will react to fire, including how easily it ignites, how quickly it

spreads, and the intensity of the burning process, which is influenced by factors like fuel moisture content, size, and arrangement.

The primary natural fuels of concern in Lone Tree consist of short, sparse dry-climate grasses (1,560 acres), low-load dry-climate grasses (959 acres), moderate-load dry-climate grass and shrubs (403 acres), and 525 acres of low-fire behavior fuels adjacent to local roads. The data also shows Lone Tree contains 1,216 acres of roads surrounded by non-burnable fuels and 853 acres of unburnable (in terms of surface fuels) urban areas.

This data implies that a fire in these areas – without other fuels – would be of low- to moderate-intensity. However, the data also shows areas with high load levels and fuel behavior: very high load dry-climate shrubs (133 acres), urban core surrounded by high fuel behavior fuel (162 acres), and local roads (178 acres) and major roads (31 acres) surrounded by high fuel behavior fuels. These higher-risk surface fuels, particularly adjacent to structures and roads, should be evaluated for mitigation strategies to reduce potential severity from fires. See Appendix A.2 for Surface Fuels map.

Watershed Protection Risk

Wildfire can have significant impacts to watershed systems within a community. The creeks in Lone Tree – Willow Creek, Happy Canyon, Badger Gulch, and Cottonwood Creek – are part of the South Platte Watershed, and Parker Water and Sanitation District and Southgate Water Sanitation District serve as the water providers to the community. The City is located within the Mile High Flood District (MHFD), formerly known as the Urban Drainage and Flood Control District (UDFCD), who partners with municipalities and other jurisdictions to protect people, property, and the environment through preservation, mitigation, and education regarding storms and the effects on the community at large. Outside of the MHFD, there are entities and groups who have special interests and authority over specific at-risk watersheds throughout the metropolitan area. The east side of Lone Tree is entirely contained in one of these entities, the Cherry Creek Basin Water Quality Authority (CCBWQA). The CCBWQA was created to monitor water quality and develop and implement plans for water quality controls. The quality of Lone Tree's water resources can fluctuate based on factors such as erosion, sedimentation deposits, debris in the water, and other nutrients or containments.

The Watershed Protection Risk in the CO-WRA is a measure of the risk to watershed protection areas based on the potential negative impacts from wildfire. In areas that experience low-severity burns, fire events can serve to eliminate competition, rejuvenate growth and improve watershed conditions. But in landscapes subjected to high, or even moderate-burn severity, the post-fire threats to public safety and natural resources can be extreme.

High-severity wildfires remove virtually all forest vegetation – from trees, shrubs and grasses down to discarded needles, decomposed roots, fungi, and other elements of ground cover or duff that protect forest soils. Severe wildfires also can cause certain types of soil to become hydrophobic

by forming a waxy, water-repellent layer that keeps water from penetrating the soil, dramatically amplifying the rate of runoff.

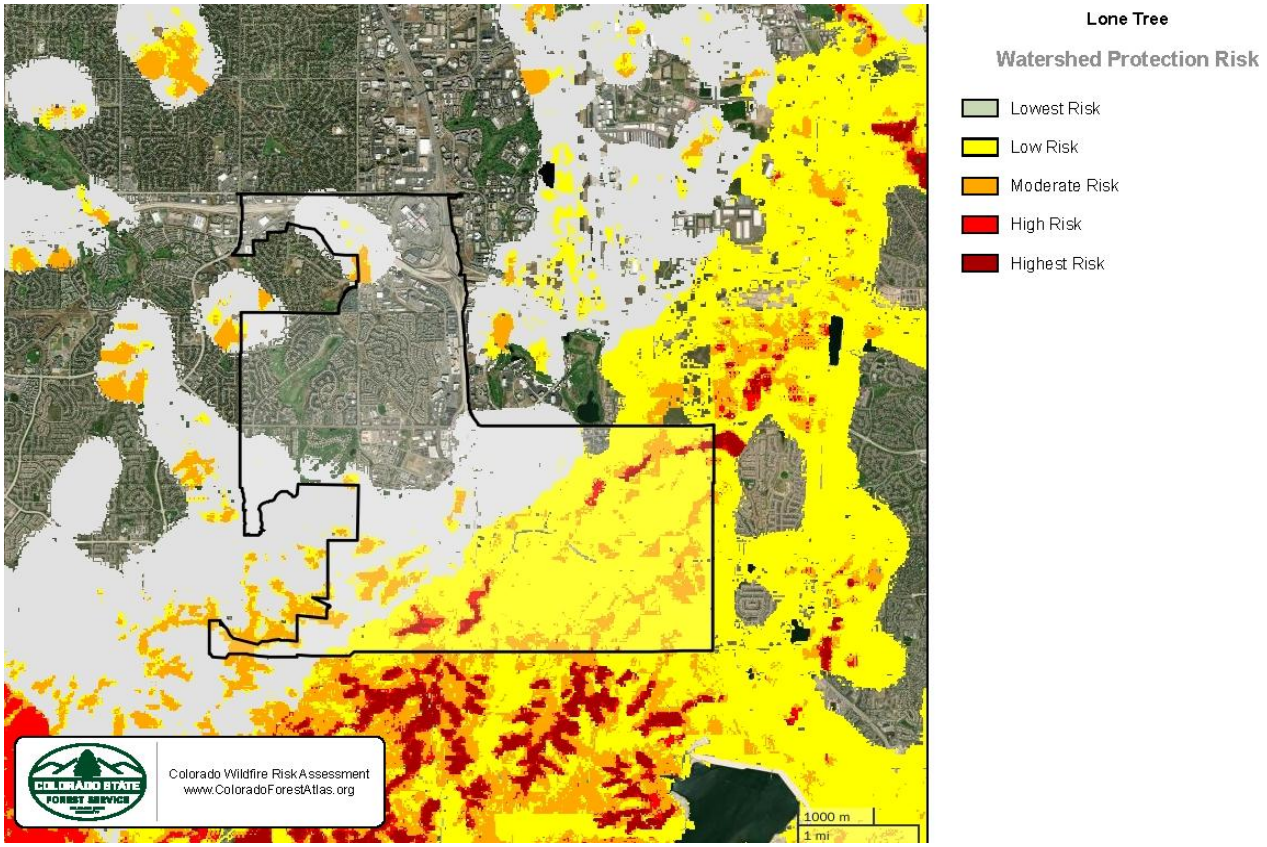
The loss of critical surface vegetation leaves forested slopes extremely vulnerable to large-scale soil erosion and flooding during subsequent storm events. In turn, these threats can impact the health, safety and integrity of communities and natural resources downstream. The likelihood that such a post-fire event will occur in Colorado is increased by the prevalence of highly erodible soils in several parts of the state, and weather patterns that frequently bring heavy rains on the heels of fire season.

In the aftermath of the 2002 fire season, the Colorado Department of Health estimated that 26 municipal water storage facilities were shut down due to fire and post-fire impacts. The potential for severe soil erosion is a consequence of wildfire because as a fire burns, it destroys plant material and the litter layer. Shrubs, forbs, grasses, trees and the litter layer disperse water during severe rainstorms. Plant roots stabilize the soil, and stems and leaves slow the water to give it time to percolate into the soil profile. Fire can destroy this soil protection resulting in an increase in runoff entering the waterways, and erosion increasing the downstream accumulation of sediment in the waterway. Various other groups within the scientific community, such as the United States Geological Survey (USGS), the United States Environmental Protection Agency (EPA), and the United Staes Forest Service, have conducted various studies on the impacts on water resources after a wildfire event. The USGS determined some potential effects of wildfire on municipal water supplies and aquatic ecosystems include the following:

- Changes in the magnitude and timing of snowmelt runoff, which influence filling of water-supply reservoirs
- Increased sediment loading of water-supply reservoirs, shortened reservoir lifetime, and increased maintenance costs
- Increased loading of streams with nutrients, dissolved organic carbon, major ions, and metals
- Post-fire erosion and transport of sediment and debris to downstream water-treatment plants, water-supply reservoirs, and aquatic ecosystems
- Increased turbidity, or heightened iron and manganese concentrations, which may increase chemical treatment requirements and raise operating costs
- Change in source-water chemistry that can alter drinking-water treatment.

The watershed risk index has been calculated by combining the Watershed Protection data with a measure of fire intensity using a Response Function approach. Those areas with the highest negative impact represent areas with high potential fire intensity and high importance for ecosystem services. Those areas with the lowest negative impact represent those areas with low potential fire intensity and a low importance for ecosystem services.

More than 86 percent of the land in Lone Tree has between low and lowest watershed protection risk; however, 12 percent, or 515 acres, is rated as moderate watershed protection risk, with approximately 83 acres rated between high and highest risk. There are four major watersheds in the city, three of which are within the Cherry Creek Basin, and ultimately discharge into Cherry Creek Reservoir. Due to previous water quality concerns within the Cherry Creek Reservoir, a wildfire within the City of Lone Tree would have potential to adversely affect the downstream reservoirs and creeks by increasing sediment, metals, and various nutrients to the water, ultimately impacting the ecosystem and water treatment facilities.



Watershed Protection Risk in Lone Tree (CSFS CO-WRA, 2022)

In 2021, Governor Polis signed Colorado Senate Bill 21-240, known as Wildfire Ready Watersheds Program, which directed $30 million to conduct a statewide watershed susceptibility analysis and provide watershed restoration and flood mitigation grants to restore, mitigate, and protect stream channels and riparian areas susceptible to flood hazards and sediment erosion and deposition after wildfire. (Colorado Water Conservation Board, 2021). This program offers a framework to assist communities in planning and implementing mitigation strategies to minimize these impacts before wildfires occur; watershed districts in Colorado are strongly encouraged to develop wildfire emergency response plans to protect water resources and community assets from the adverse effects of wildfires.

Building Damage Potential

Most structures ignite from embers: burning chunks of fuels lofted above a fire by the rising column of heated air (a convective column). When those burning chunks of fuel, which can be pea- to grapefruit-sized, land on other flammable fuels such as dead needles, dead leaves, junipers, or combustible deck furniture, they can ignite spot fires. Embers typically find vulnerabilities in the nooks and crannies of buildings. Structures also can ignite from heat radiating laterally from burning fuels such as **junipers** and other buildings.

Flying embers are the most common source of home ignition during wildfires. Photo: Insurance Institute for Business & Home Safety.

The goal of vegetation management around homes and other structures is to create a modified fuel area in which flammable vegetation is reduced, to create an environment that will not support high-intensity crown fires. The main objective of fuel management around homes and structures is to create conditions that will only support surface fires of lower intensity and lower rates of spread, reducing the potential for fire to spread from the vegetation to the structure and vice versa.

More than 95 percent of Lone Tree's buildings are rated between very low and low in CO-WRA's Building Damage Potential (BDP) metric. This metric estimates the potential for building loss, calculated on a building-by-building basis, which provides a measure of the number of potential buildings lost based on the number of buildings threatened by fires in the specific area. However, it's important to note that **all structures have exposure to burning embers** from wildfire that may or may not start within Lone Tree city limits. It is recommended that all property owners maintain effective defensible space around their homes and structures, to further protect against and account for unanticipated variables in the modeling. More information on maintaining defensible space can be found in the *Home Ignition Zone and Defensible Space* section.

Roadways and Evacuation Routes

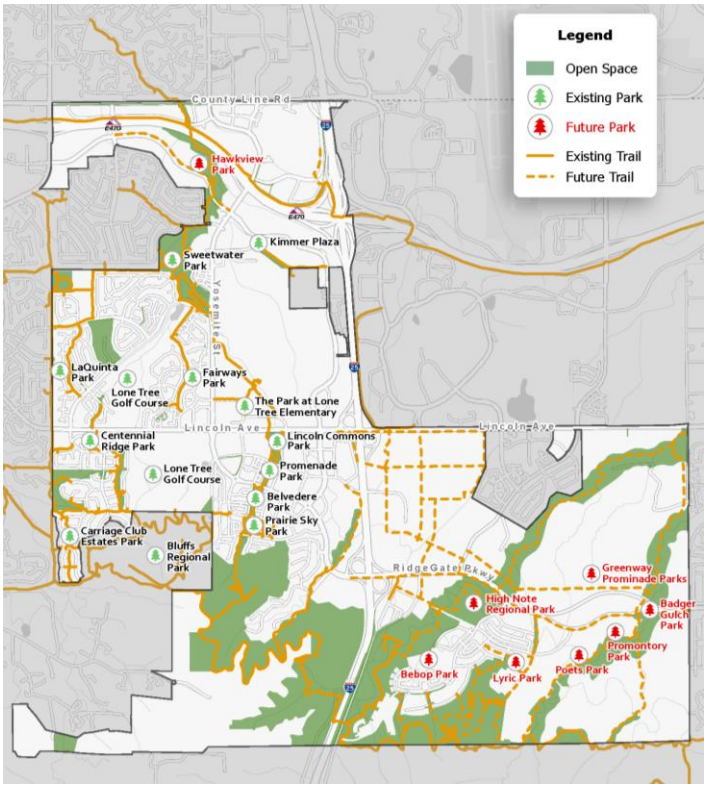
Lone Tree contains a well-developed roadway network that supports both daily traffic flow and emergency evacuations. The city's primary arterial roads, including Interstate 25 (I-25) and C-470/E-470, serve as major north-south and east-west corridors, providing essential regional connectivity and evacuation routes. Additionally, Lincoln Avenue, Yosemite Street, and RidgeGate Parkway are key local thoroughfares that facilitate movement within the city and connect to larger highways. Residential neighborhoods are primarily accessed via collector roads and cul-de-sacs, which can pose challenges for rapid evacuation in a wildfire event.

Given the proximity of open spaces, such as Bluffs Regional Park, and undeveloped grasslands, wildfire risk mitigation efforts must account for potential roadway obstructions, traffic congestion, and limited egress points. To enhance wildfire evacuation readiness, the City relies on real-time

emergency communication systems and coordination with Douglas County and other neighboring agencies' emergency services. Evacuation routes should prioritize access to I-25 and C-470, as these major highways provide the most direct pathways out of the city. Additionally, secondary evacuation routes should be identified through local streets to prevent bottlenecks. Vegetation management strategies for access routes in Lone Tree can serve as effective fuel breaks to provide fire protection, assist in fire suppression efforts, and improve effective evacuation. Ensuring clear road signage, maintaining defensible space along evacuation corridors, and conducting community evacuation drills will help improve overall wildfire resilience and preparedness in Lone Tree.

Open Space, Parks, and Trails in the WUI: Maintenance and Management

Lone Tree currently has 1,359 acres of dedicated open space, 14 existing parks, and 75 miles of trails. The term "open space" is used to identify larger systems of land that are generally undeveloped, exist in a natural state and are intended to be preserved in that state, and that often include stream corridors and drainage ways, native vegetation, and wildlife habitats. While the CWPP addresses existing conditions in the WUI, future updates to the plan will include new development on the east side of I-25, which includes plans for five parks and additional open space areas. The following map identifies Lone Tree's existing and future parks, trails, and open space, as depicted in the 2025 Comprehensive Plan Update.



Lone Tree Parks and Open Space

South Suburban Parks & Recreation

The City of Lone Tree partners with South Suburban Parks & Recreation District (SSPRD) to manage a majority of City-owned parks and open space land. The SSPRD Open Space Division is responsible for nearly 1,679 acres of natural open space property spread across the 46 square miles of the SSPRD District. The Open Space Staff manages the dryland grasses and controls the nuisance weeds and vegetation. They are also responsible for mowing operations within the open space properties.

SSPRD's maintenance plan indicates that, in active recreation areas, trailside and manicured park buffer areas may be mowed 3 to 6 inches tall, at a width from the fence or property line at approximately 5 feet. Staff will begin this mow line 12 to 18 inches away from fence lines to prevent damage to fences or private property. Residents who back to an open space area can maintain this

area by mowing or line trimming between their fence line and the edge of South Suburban's mow line. Mowing beyond the SSPRD mow line is prohibited. Weed infestations in these areas may be mowed, or line trimmed, once every four to six weeks, to prevent seed production.

In passive recreation areas, such as drainage corridors, large open fields, and areas along the Bluffs, SSPRD Open Space and Vegetation Management Plan provides for mowing annual mowing of a 10-foot buffer adjacent to residential properties where a fence exists when possible, pending grade and vegetation. Staff will begin this mow line 12 to 18 inches away from fence lines to ensure private property is not damaged. Residents who back to an open space area can maintain this area by mowing or line trimming between their fence line and the edge of South Suburban's mow line. Mowing beyond the SSPRD mow line is prohibited. In the rest of these open spaces, mowing is not a standard practice. This encourages the grass plant to grow to seed and drop the seed encouraging natural regeneration of the grass type successful in that specific growing area.

Rampart Range Metropolitan District

Rampart Range Metropolitan District (RRMD) manages a variety of City-owned parks and trails in RidgeGate, east of I-25. Additionally, RRMD manages and maintains RidgeGate open space. As part of the 2009 *RidgeGate West Village Parks, Open Space, and Trails Master Plan*, RidgeGate's open space fire management recommendations are categorized by three groups of fire hazards: grassland, scrub oak, and drainage corridors, as described in the following sections.

Grassland Fire Management

Development near open wild grasses should be protected by a series of buffers ranging from 20 to 100 feet. In the buffer zone immediately surrounding any building or structure, a minimum of 20 feet should be irrigated and maintained, including a provision for at least 3 feet of concrete or crusher fine surface that has been completely stripped of organic materials. The 3-foot buffer should be regularly maintained to keep organic materials from growing. The remainder of the buffer should be mowed to less than 6 inches regularly. Structures within 50 feet of open grassland should be constructed to the highest possible fire resistance, especially as concerns siding, roofing and decking.

Scrub Oak Fire Management

A minimum 10-foot buffer should be kept between structures and scrub oak. A number of the proposed trails for the bluffs will pass through scrub oak growths and the design and construction of these trails should be made in consultation with fire protection authorities, since trails are often the first and most convenient fire breaks in fighting wild land fires away from roads and flowing water.

Drainage Corridor Fire Management

Drainage corridors typically have a higher water content than vegetation on other portions of the property. Once dry, however, willows and grasses along these corridors pose the same threats as fire fuels anywhere else. Drainage corridors, when ignited, also often provide funnels by which

fires travel uphill, and as such, fire breaks along the Cottonwood Creek and Willow Creek corridors should be planned accordingly. Furthermore, the corridors contain cottonwood growths that present their own challenges to wildfire management. Once dry, large cottonwood trees are significantly dangerous fuel sources for fires that burn at remarkably high temperatures. Cottonwoods along the creeks should be regularly inspected for the tree's health and water content and trees that are dry should be the focus of rehabilitation efforts. Trees that are dead should be cut down and removed.

The plan also identifies the importance of additional lines of defense, including buffers along roads and trails, stating that the alignment, width, and location of trails and soft (unpaved) maintenance roads in open spaces can provide a reasonable fire break (*RidgeGate West Village Parks, Open Space, and Trails Master Plan*, 2009).

Douglas County

The Bluffs Regional Park is maintained by Douglas County. Approximately once a month, Douglas County Open Space staff mows six-foot buffers along trails in the Bluffs, providing for fuel breaks and mitigating the risk of fire spreading into neighborhoods within Lone Tree. Because this area is comprised of a diverse mix of predominately native grasses, a wildfire in the Bluffs would likely be low intensity, at a slow to moderate rate of spread. The CO-WRA indicates this area's surface fuels as primarily short, sparse or low-load dry climate grass (see *Surface Fuels* section).

The County also prioritizes weed control in the Bluffs. Weed control plays a crucial role in mitigating wildfire risk by reducing the amount of flammable fuel available and promoting the growth of more fire-resistant native vegetation. Invasive weeds, such as cheatgrass, dry out early in the season, creating a thick layer of fine, highly flammable fuel. In addition, many invasive weeds grow in dense patches, forming a continuous fuel bed that allows fire to spread more quickly. The County's weed management calls for removing or controlling these weeds, which helps decrease the amount of dry vegetation that can ignite easily and spread fire rapidly, breaks up fuels sources to slow or stop the progress of a fire, and encourages native plant growth.

Recommendations for Residents and Property Owners

Wildfire mitigation can be defined as those actions taken to reduce the likelihood of loss due to wildfire. Effective wildfire mitigation can be accomplished through a variety of methods including reducing hazardous fuels; managing vegetation; creating defensible space around individual homes, structures, and neighborhoods; utilizing fire-resistant building materials; enhancing emergency preparedness; and developing programs that foster community awareness and action. Once implemented, these actions will significantly reduce the risk of loss due to wildfire for an individual home, and on a larger scale, for an entire community.

In consideration of the wildfire triangle, or, conditions needed for wildfire – oxygen, fuel, and heat – fuels are the only thing that can be modified to mitigate or reduce wildfire risk. However, achieving effective risk reduction also often requires collaboration and a fundamental shift in behavior.

This plan identifies and develops recommendations that address wildfire hazards, for both individual property owner and neighborhood-wide levels.

Home Ignition Zone and Defensible Space

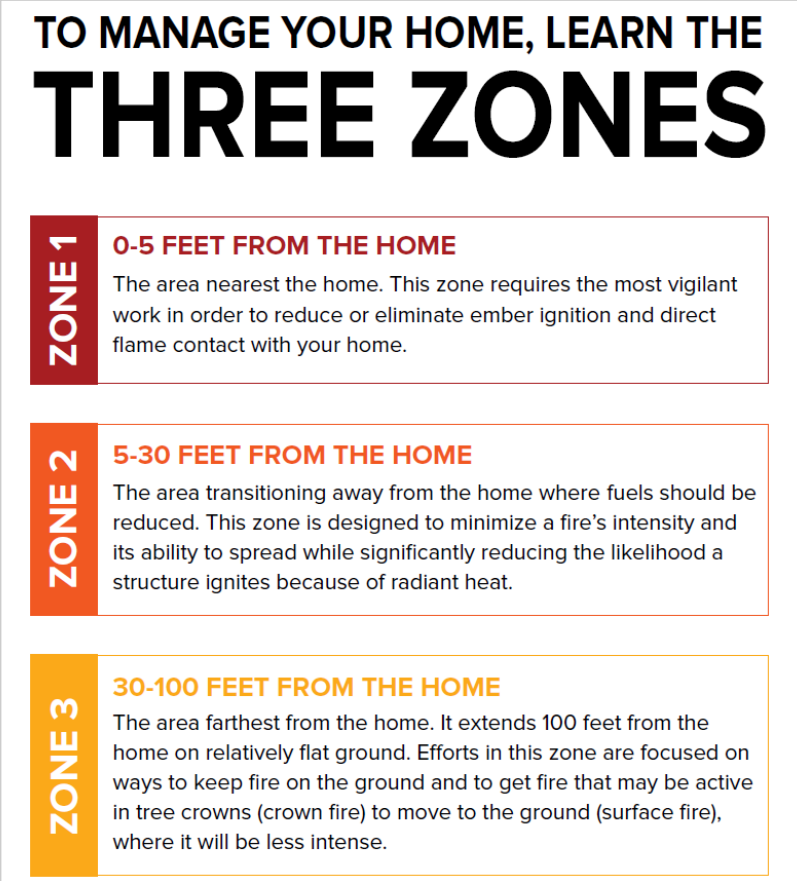
Two factors have emerged as the primary determinants of a home's ability to survive a wildfire: the quality of the defensible space and a structure's ignitability. Together, these two factors create a concept called the Home Ignition Zone (HIZ), which includes the structure and the space immediately surrounding the structure. The condition of the HIZ principally determines the potential for structure ignitions during a wildfire. Infrastructure burns because of its interrelationships with everything in its surrounding HIZ. To protect a home from wildfire, the primary goal is to reduce or eliminate fuels and ignition sources within the HIZ.

Home Ignition Zone (CSFS The Home Ignition Zone Guide, 2021)

Under extreme conditions, wildland ignitions could quickly involve homes located on the edge of natural fuels and spread through neighborhoods by house-to-house transmission. Lone Tree faces a particular challenge in limiting potential damage from interface fires, as development is primarily dense and the limited lot sizes do not often allow for individual defensible spaces; however, it is possible to develop linked defensible space by building defensible perimeters around clusters of homes and replacing native and flammable ornamental plantings near and between structures with ignition resistant plantings.

The defensible space concepts presented below can be applied to closely built groups of homes as well as individual homes built on larger lots with greater spacing. Because fuels modifications extending beyond lot boundaries will often require collaboration or special permission to be implemented, homeowners are encouraged to partner with neighbors and the HOA or similar neighborhood organization to work collaboratively, as structure hardening and the creation of defensible spaces will produce the significant benefits for the protection of life and the conservation of property from the effects of wildfire. For more information on broader community protection, please visit csfs.colostate.edu/wildfire-mitigation.

Defensible space is defined as an area around a structure that has been modified to reduce fire hazards. Natural and manufactured fuels are treated, cleared, consolidated, or substituted with ignition-resistant landscaping to slow the spread and intensity of fire. The development of defensible space involves three zones in which different techniques are deployed. These zones should be developed for every structure on the property, including the home, detached garages, storage sheds, etc. Effective defensible space consists of a fuel-free zone adjacent to the home, a treated secondary zone that is thinned and cleaned of surface fuels, and if the parcel is large enough, a transitional third zone that is basically a managed wildland area. These components all work together in a proven and predictable manner.



Home Ignition Zones (CSFS The Home Ignition Zone Guide, 2021)

ZONE 1 is the area where the greatest vegetation modification will occur. CSFS identifies this zone as 0- to 5-feet from the home, outside edge of the eves, decks, or other attached projections. This zone requires the most vigilant work to reduce or eliminate ember ignition and direct flame contact with the home or structure. Within this zone, plant nothing within three to five feet of the structure. Increasing the width of Zone 1 will increase the structure's survivability.

- In general, nothing should be planted in the first five feet from the structure, and ground cover should be non-flammable such as gravel, cement, or flagstones.
- Any cuttings, mulch, or woody debris should be removed.
- Pine needles and any other flammable debris should be removed from any decks or projections and raked to a distance of five feet away from these. Raking this material more than five feet has not been shown to significantly reduce the likelihood of ignition and is not recommended.
- Any branches that overhang the roof or are within 10 feet of a chimney should be removed.

ZONE 2 extends from five to 30 feet from the structure and is managed to reduce the intensity of approaching fire. The goal of Zone 2 is to give an approaching fire less fuel, which will help reduce its intensity as it gets near to the home or any structure.

- Thin vegetation and remove any stressed, diseased, dead, or dying trees or shrubs.
- Trees and large shrubs should be thinned so that there are at least 10 feet between the crowns (crown separation is measured from the outermost branch of one tree to the nearest branch of the next tree). On steep slopes, allow more space between tree crowns.
- Remove all ladder fuels from under the remaining trees.
- Carefully prune trees to a height of 10 feet. On smaller trees leave at least 2/3 of the crown with green needles (CSFS, 2021).
- Locate propane tanks at least 30 feet from any structures preferably on the same elevation as the house; flammable vegetation should be cleared within 10 feet of these tanks. Under no circumstances should propane tanks be screened with shrubs or vegetation.
- Clumps of shrubs should be reduced in diameter to no more than twice the mature height.
- Mow grasses to a maximum height of four inches. This is especially important in the fall when grasses have dried out.
- Avoid heavy accumulations of fuels on the ground, including logs, slash, or mulch piles.

ZONE 3 is designed to provide a gradual transition between Zone 2 and the natural vegetation condition of the surrounding lands. This zone extends from 30-100 feet from structures and is managed to promote vegetative health and limit fire behavior. The goal is to enact mitigation that keeps wildfire on the ground, but also provides a space to improve forest health. Efforts in this zone are focused on ways to keep fire on the ground and to get fire that may be active in tree crowns (crown fire) to move to the ground (surface fire) where it will be less intense. Tree crown spacing of 6 to 10 feet is suggested.

Creating defensible space is not a one-time job; it must be maintained on an annual basis. A checklist of defensible space maintenance tasks is available from the CSFS website, csfs.colostate.edu/wildfire-mitigation.

Defensible space provides another important advantage during a fire: increased firefighter safety. Firefighters are trained to protect structures only when the situation is relatively safe for them to do so. They use a process called "structural triage" to determine if it is safe to defend a home from an approaching wildfire. The presence or absence of defensible space around a structure is a significant determining factor used in the structural triage process, as defensible space gives firefighters an opportunity to do their job safely. In turn, this increases their ability to protect your home. If firefighters are unable to directly protect your home during a wildfire, having **an effective defensible space will still increase your home's chance of survival**. It is important to remember that with wildfire, there are no guarantees. Creating a proper defensible space does not mean that your home is guaranteed to survive a wildfire, but it does significantly improve the odds (Colorado State Forest Service, 2021).

Vegetation and Fuels Management

Before a fuel can burn, it must absorb enough heat to cause the remaining water in it to evaporate. The dry part of the fuel then absorbs more heat that causes the solid fuel to break apart into its gaseous state; it's the gaseous state that actually burns. Thus, denser, wetter fuels typically resist ignition longer than lighter, drier fuels.

The primary natural fuels of concern in Lone Tree consist of grasses, oak shrub, and other shrub variations. The fuels of most concern occurring near homes are juniper bushes and trees, as well as moderate to heavy loads of dry climate shrubs – principally Gambel or "scrub" oak – and ornamental grasses. In the case of native grasses, ensuring the area within 30 feet of a home is mowed to a height of four inches or less is an effective treatment to reducing flame length and fire intensity.

Junipers are highly combustible and significantly increase the risk of wildfire impact to a structure.

Most deciduous trees and shrubs resist fire because they are full of water; however, **Gambel oak** is an exception, as the resin inside oak makes it flammable for most of the year. Therefore, it is not recommended to have plants that contain **flammable resins, saps, and oils** within 30 feet of homes. Along with Gambel oak, these plant species also include **juniper**, Pfitzer, cedar, arborvitae, Mugo pine, piñon pine, Austrian pine, and bristlecone pine, as well as decorative conifers such as Alberta or Norway spruce. Not only do they dry and vaporize quickly, which makes them vulnerable to igniting quickly, but their high oil content also causes these plant species to release significant heat when they burn, which can result in intense fires when ignited. Furthermore, many of these species create considerable needle drop, and when dry, the needles shed by trees can serve as ladder fuels, allowing a ground fire to climb up to the tree canopy and create a bigger, more intense fire.

Ladder fuels are live or dead vegetation that allows a fire to move up from the ground to the tree canopy. If they ignite, they carry flames up into the treetops, creating a larger, hotter fire. Gambel oak growing under pine trees should be removed, as it can act as a ladder fuel. By removing these ladder fuels, flames can stay on the ground where they typically are shorter and firefighters have a better opportunity to extinguish them directly.

Gambel Oak

Oak brush, especially decadent or old growth stands, should be treated as potentially highly dangerous. Spring frosts that kill foliage can result in Gambel oak exhibiting extreme fire behavior through summer, as dead leaves remain on the shrub. Property owners and land managers should

remove any Gambel oak occurring within 30 feet of homes and replace it with landscaping that conforms to the defensible space recommendations for Zone 1 and Zone 2, as described in the following sections. Gambel oak occurring between 30 and 100 feet of a structure, where it may not be desirable or practical to remove the Gambel oak, should be maintained by removing dead or old material and thinned, to promote new and more resilient growth. Thinning of brush and shrubs can often be accomplished by separating a large area of growth into "clumps,' spacing each clump at least 2 ½ times the height of the vegetation apart. For more information on Gambel oak management and treatment methods, visit Colorado State University Extension's Gambel Oak Management page.

Gambel Oak "Clumps" (Photo: Douglas County)

Ongoing Maintenance

Maintenance of plant material is a critical factor in safeguarding these species' ignition-resistant qualities and continuing resistance to undesirable fire effects. Ongoing maintenance should include removing dead material, ensuring adequate water or irrigation, weed control, cutting grasses to four inches or less, pruning trees and shrubs as necessary to prevent the buildup of ladder fuels, and removing surface fuel accumulations. Ladder fuels and heavy accumulation of fuels on the ground contribute to crown fire development and spotting during fires. All significant concentrations of native fuels near homes should be evaluated annually at the beginning of the fire season for treatment needs.

Low-Flammability Landscape Plants

In conjunction with Colorado State University Extension, the Colorado State Forest Service published an updated guide for Low-Flammability Landscape Plants, that provides information on plant flammability and a plant list, specifically for landscaping in Zone 1 (0-5 feet from the structure) and Zone 2 (5-30 feet from the structure). The guide notes that while there are several factors to consider when choosing low-flammability plants, a plant's moisture content is the single most important factor in determining its volatility. Resin, latex or pectin content, plant height, stem characteristics, and drought-tolerance are also factors that affect a plant's flammability. See the full list of low-flammability plants in Appendix C.

Plant Attributes that

Decrease Flammability 👍

- Low oil or resin content
- High moisture content
- Soap, latex, or pectin content
- Compact growth form
- Green stems
- Drought tolerant

Plant Attributes that

Increase Flammability 👎

- High oil or resin content
- Low moisture content
- Tall growth
- Open form
- Fine wood (twiggy) stems
- High water need

It's important to keep in mind that there are no truly "fireproof" plant species. However, creating a defensible space around one's home can increase the likelihood of a home's survival from wildfire, and intentional landscaping plays a critical role in reducing wildfire hazards (Carter, et al., 2023).

Fire-Resistant Landscaping

Along with plant flammability, a structure's whole-picture landscaping can influence how a fire may spread to structures; in the best-case scenario, landscaping prevents fire from getting close enough to structures to ignite them. In conjunction with the Low-Flammability Plant guide referenced in the previous section, the Colorado State Forest Service and Colorado State University Extension published the Fire-Resistant Landscaping, which provides property owners with tips and best practices for utilizing the whole landscape system to reduce risk of fire igniting the structure.

Creating a fire-resistant landscape involves appropriate hardscapes (walls, pavers, pathways), plants, and maintenance as it pertains to the home ignition zone (HIZ), the area within 100 feet of structures; correctly maintaining the landscaping within the HIZ can increase a structure's chance of surviving a wildfire.

Wildfire behavior is heavily influenced by two factors: 1) **fuel continuity**, or how flammable materials are positioned relative to one another, and 2) **fuel loading**, or how much flammable material is present. Landscape plants and landscaping layout can affect the continuity and loading of fuels around structures and can make the difference between a structure surviving a wildfire or not. In many neighborhoods within the WUI on smaller lots, zones will overlap – especially Zone 3. It is important to work with your neighbors to protect against wildfire in this situation. **A group of structures is only as protected as their least prepared member.** Property owners near open spaces or undeveloped land should be especially attentive to structural hardening and landscaping because they are more exposed.

Tips for Working with Neighbors

- Respect your neighbors' preferences and abilities to modify their landscapes and harden their structures.
- Set a great example on your property.
- Invite neighbors to participate in opportunities: wildfire risk assessments, landscape or tree contractor site visits, labor to mow, clean gutters or lay stone.
- Don't be discouraged when neighbors don't take immediate action. Managing native vegetation, fire-resistant landscaping and structural hardening take time, money and support.
- Use resources like Firewise USA® and CSFS, and engage HOAs or Neighborhood Ambassadors to support community efforts.

Fences. Ideally, fences, including privacy fences, should be constructed of non-combustible materials. Wooden fences and wood-plastic composite fencing are not recommended; at least one type of wood-plastic composite fencing was found to have even greater fire growth, flame length, and intensity than wooden privacy fences (Butler, et al., 2022). Fences can act as fuses, creating a continuous line of fuel that fire can follow toward houses and structures. Burning fences also produce firebrands that can quickly spread fire. At a minimum, the 5-foot section of fence closest to the house should be non-combustible.

Landscaping in Home Ignition Zone 1: 0-5 Feet from a Structure

One of the most critical elements to reducing risk of fire or firebrands from igniting materials that can directly spread fire to structures is maintaining a 5-foot non-combustible zone from the perimeter of the structure. The non-combustible zone is ideally made up of a concrete sidewalk, flagstone or pavers, brick, gravel, or even bare ground. Note that gravel can pose more of a challenge to keep clear of flammable debris because it is harder to rake out fine fuels than to clear them from smooth surfaces. Do not use combustible mulch (wood chips, bark, pine needles, shredded rubber) in this zone. Consistent maintenance of this area is essential; do not store flammable materials such as firewood or lumber in this area. Do not use combustible patio furnishings such as wicker furniture, furniture cushions and door mats.

HIZ Zone 1: the area within 5 feet of a structure should be clear of debris and combustible material (Photo: CSFS)

Landscaping in Home Ignition Zone 2: 5-30 Feet from a Structure

In Zone 2, the area 5 to 30 feet surrounding a structure, do not plant in large masses; instead, plant in small, irregular clusters or "islands." Use decorative rock, gravel and steppingstone pathways to break up the continuity of the vegetation, creating breaks in the fuel that can modify fire behavior and slow the spread of fire across your property. The goal is to reduce fire intensity as it nears structures, by limiting available fuel to approaching fire or firebrands. It is important to reduce fuel loading in this area by keeping plant material height cut short to reduce flame length; grasses should be cut to a height of 4 inches or less. Remove dead plants, sticks, logs, evergreen needles, leaves and other flammable debris.

Along with the aforementioned information found in the Home Ignition Zone and Defensible Space section, the following provides a quick weekly checklist of critical landscaping maintenance and practices for Zone 2:

- Mow lawns to a height of 4 inches or less.
- Remove ladder fuels beneath trees.

- Keep all landscape plants healthy. Trim diseased and dead branches or plants. Do not allow dry plant debris to accumulate.
- Cut back annuals and perennials after they go to seed or when the stems become dry.
- Clean up leaves and other litter through the season; do not allow it to accumulate.
- Avoid accumulation of branches, logs or other woody debris, including chip piles.
- Do not store lumber, old tires and other trash in this zone.
- Prune for plant health and canopy thinning where appropriate. Keep trees limbed to 6 -10 feet above the ground but no more than 1/3 of its total height, particularly in smaller trees such as piñon and juniper.
- Clear debris or fine vegetative fuels (wood mulch, evergreen needles, leaf litter, small twigs) from the base of all fences.
- Keep all plants at their optimal moisture levels. If you have an irrigation system, set a program to keep the landscape green. If water rights permit, deeply water trees and shrubs every 20 to 30 days during the growing season. If you cannot irrigate landscaping, plant low-flammability plants that can survive and stay green without supplemental water.

A landscape is a dynamic system that continuously changes and can be the difference between protecting a home or structure from fire. It is vital that property owners take initiative to reduce risk on their property by regular maintenance and working collaboratively with neighbors (Goeckner, et al., 2024). For more information on protecting your home and property, visit csfs.colostate.edu/wildfire-mitigation.

Home Hardening and Structural Ignitability

The survivability of structures impacted by wildfire can be largely attributed to the construction materials, their condition, and the quality of defensible space surrounding the structure. The following information was derived from the "Lessons Learned from Waldo Canyon" (Quarles, et al., 2013), which provides an assessment and overview of damaged and undamaged homes, impacted by the 2012 Waldo Canyon Fire.

The report posits that wildland fire-to-building ignition resulting in damage or loss during wildfires occurs if the fire can burn directly to the building; directly or indirectly from wind-blown embers (also known as firebrands) or from exposure to embers generated by the burning wildland vegetation. An example of loss due to direct ember exposure would be ember entry through a vent or open window with subsequent ignition of combustible materials inside the building. Direct ignition by embers also can occur through ember accumulation on combustible materials, such as a wood shake roof or combustible decking or immediately adjacent to combustible materials, such as siding (Quarles, et al., 2013, pp. 10-11).

While burning embers are a significant source of igniting structures, there are measures that can be taken to safeguard structures and reduce the risk of a structure's vulnerability to ignition. The

following was derived from the Douglas County CWPP, which provides resources on reducing a structure's vulnerability to ignition.

The most vulnerable parts of a structure that can lead to loss or damage in a wildfire include:

Roofing. Roofing has been the key factor in most structure fires. Roofing material and condition, construction details, and whether the roof is clear of burnable material (such as pine needles and other debris) all play a role.

Garages. Garages are typically not well-sealed and gaps at the top and bottom edge of the doors can allow burning embers to enter, and often times garages contain flammable materials. Garages usually have vents at various locations, especially if they contain gas furnaces or hot water heaters. These vents are easy entry points for embers.

Siding. Flammable siding can provide a pathway for flames to reach vulnerable portions of a structure such as the eaves or windows. Siding needs a source of ignition, which in many cases includes vegetation in close proximity to a structure, wood decks and/or fences, and stacked firewood or other flammable materials.

Vents. Soffit vents in the eaves are easy entry points for wind-driven embers during a wildfire. These fires often start in an attic, which is not easily detected from the outside. Structures have been lost when fire personnel have left the scene unaware that a fire is burning in the attic. Recommendations are to screen vents with 1/8" wire mesh to reduce ember penetration potential.

Windows. Unprotected and inadequate windows can be another major entry point for fire. Windows can be broken by airborne materials or cracked by thermal expansion, thus igniting materials in the structure through radiation, convection, and/or burning embers.

Nooks and Crannies. Small grooves, inside corners, and roof valleys all become areas where flammable debris (such as pine needles and bird's nests) collects over time, where burning embers can land, igniting the debris.

Crawlspace Vents. These areas, not just under a structure, but under decks and other attachments, are difficult to protect if they are not adequately screened. Much like vents in the attic, burning embers can be carried to flammable material underneath a structure via such vents.

Wood Fences. Firefighters have observed that wood fences, when ignited, function as a fuel source that carries fire closer to a structure. Many fences are either attached to a home or close enough to present a problem.

Wood Decks. Decks function as a source of fuel that is attached or directly adjacent to structures. When ignited by wildfire, the radiant and convective heat output from wood decks can ignite structures. In addition, most decks are adjacent to large windows or glass sliders. The heat from a deck fire can cause the glass to fail, allowing the wildfire to enter a structure.

Flammable Landscape Vegetation and Debris. Items such as shrubs, tall grasses, wood or other flammable debris piled in close proximity to the house can result in structures being exposed to

significant radiant and convective heat and burning embers, making structures more susceptible to ignition.

Colorado House Bill 24-1091

In the 2024 Legislative Assembly, Colorado lawmakers passed House Bill 24-1091 that in general, prohibits covenants and other restrictions that disallow the installation, use, or maintenance of fire-hardened building materials in residential real property. This means that HOA covenants may not restrict a homeowner's reasonable installment of use of fire-hardening material on their home or property. For example, if an HOA's covenants only allows for wood fencing and a homeowner wants to install a non-combustible fencing material instead, such as steel or fiber cement fencing, this bill supersedes the HOA's covenants in that regard, allowing the homeowner to use the non-combustible materials. The act does, however, allow a unit owners' association of a common interest community to develop reasonable standards regarding the design, dimensions, placement, or external appearance of fire-hardened building materials used for fencing within the community, and other building codes still apply. Homeowners are encouraged to understand HB 24-1091 provisions and should work with the HOA and/or the City Building Department before making changes to one's property.

Wildfire and Insurance

The availability and cost of homeowners insurance, as it relates to wildfire, is a rising concern for Lone Tree residents, and is recognized as a major issue across the state and country.

Underinsurance. Homeowners insurance typically covers property losses caused by wildfire, and coverage continues to be available in most wildfire prone areas*. However, throughout the country, wildfires continue to expose an important issue: most homes are significantly underinsured against wildfire. Estimates of the insurance gap in homes affected by the 2021 Marshall Fire range between $100,000-250,000 per family. Underinsurance can lead to untold financial hardship, that's often only realized after the damage has been done. Learning your insurance only covers a percentage of losses after losing your home can be a devastating realization, amid already-challenging circumstances. The Colorado Department of Regulatory Agencies Division created a Toolkit for Homeowners and HOAs on Insurance, which provides valuable information on specific types of coverage to consider in your policy, how to navigate increasing insurance premium costs, consumer rights, and strategies for securing coverage.

Colorado FAIR Plan. The Colorado Fair Access to Insurance Requirements (FAIR) Plan is a program designed to provide property coverage for homeowners and businesses at extreme risk of natural disaster that standard insurers have deemed too high risk to cover. Property owners must have proof of rejection from three standard insurance companies to qualify. More information on the Colorado FAIR Plan can be found at www.coloradofairplan.com.

Additional insurance considerations. Along with underinsurance, residents should be aware of some additional important factors related to wildfire and insurance. Many insurance companies require customers to be active participants in reducing their wildfire risk by implementing steps to

protect their property. In addition, some insurers require on-site inspections and will notify policyholders of necessary mitigation to reduce risk to their home and keep it insurable. Examples of additional insurance considerations include:

- The type of construction, materials, and features on your home, including the roofing, windows and siding as well as slope and emergency vehicle access.
- Distance to a fire hydrant and a fire station, and the protection measures provided by the fire authority (SMFR). See below for more information on SMFR's ISO Wildfire Protection Classification Rating for potential safety and insurance impacts.
- Insurers consider many individual and geographical risk factors beyond wildfire that affect premiums and insurability, such as hail proneness and unique construction.
- Do annual policy "checkups" with your insurance professional to keep up with local building costs, home remodeling and inventories of personal belongings.
- Consider replacement cost coverage that provides additional protection and update policy limits to rebuild or repair your home for what it would cost in the current building market. State law requires insurers to offer additional coverage to help keep pace with rising building costs, code upgrades and inflation.
- Accurate inventories of personal possessions make for faster and smoother claims' settlements. Photos and videos offer easy ways to document your possessions. Most insurers and the National Association of Insurance Commissioners (NAIC.org) offer free home inventory apps.

Contact your insurance company or agent to find out what prevention steps may be required to help reduce your wildfire risk. For general insurance information and wildfire property & financial preparedness, contact the Rocky Mountain Insurance Association at rmiia.org or the Colorado Division of Insurance at dora.colorado.gov/insurance (Colorado State Forest Service, 2021).

*Individual risk factors affect insurance premiums & availability, so cost and ability to obtain insurance will vary based on company policies.

South Metro Fire Rescue's Class 1 ISO Rating

The ISO (Insurance Services Office) Public Protection Classification (PPC) rating is a score assigned to fire departments and their communities based on their ability to respond to and suppress fires. The ISO evaluates fire protection services on a scale from 1 to 10, with Class 1 representing the highest level of fire protection. The rating is determined based on factors such as the fire department's staffing, equipment, training, water supply, emergency communications, and community risk reduction efforts, including fire prevention and public education programs.

SMFR has been issued a Class 1 ISO rating – the fourth in Colorado to achieve this high rating, and the first department in the country with an ISO 1 in hauled water / non-hydrant areas. A Class 1 rating signifies that a fire department meets the most rigorous standards for fire protection,

demonstrating exceptional response capabilities, well-maintained infrastructure, and effective fire prevention measures. Communities with a Class 1 rating typically benefit from lower homeowner and business insurance premiums, as insurers use ISO ratings to assess fire risk. This rating also reflects a high level of commitment to fire safety, ensuring residents receive the best possible emergency response in the event of a fire. To learn more about SMFR's Class 1 rating, visit south-metro.org/267/Accreditation-ISO-Rating.

Each insurance company that writes policies in Colorado has their own underwriting guidelines, modeling, and data tools that speak to how different ISO ratings are used in such calculations. During the annual policy renewal, consumers should discuss with their agent all features of their home, personal property, and any special mitigation or home hardening completed, and ask questions about how the ISO rating is calculated and available discounts.

CodeRed Emergency Notifications

The CodeRed Emergency Notification System (Reverse 911) is a critical communication tool used by the City of Lone Tree, to quickly disseminate urgent information to residents and businesses in the event of emergencies. This high-speed mass notification system delivers alerts via phone calls (as pre-recorded voicemails), text messages, and emails, ensuring timely updates on wildfires, police activity, evacuations, lost children, and other critical incidents. The system allows emergency management officials to target notifications geographically, reaching affected areas with precise and relevant information, including real-time safety instructions.

Approximately 46,302 people are currently registered for CodeRed in Lone Tree: 42,483 are registered with a residential address and 3,819 with a business address. Residents and businesses – including all applicable members of a household or employees of a Lone Tree business – are strongly encouraged to sign up for CodeRed to receive alerts tailored to their location. Registration is free and ensures that individuals stay informed during emergencies that may threaten lives and property. To learn more and sign up for CodeRed, visit dcsheriff.net/codered.

It's important to note that the above CodeRed link directs users to Douglas County's CodeRed system, intended for Douglas County addresses. If you live or work outside of Douglas County and would like to sign up for emergency alerts, check with the applicable county's Office of Emergency Management to be registered through their system.

General Risk Reduction Recommendations for the Lone Tree Community

The following general measures listed below should be practiced throughout Lone Tree:

1. Clean roofs and gutters at least twice a year, to minimize the risk of embers accumulating and igniting debris in your gutters; this may require even more frequent cleaning depending on the amount of tree cover near your home.

2. Be vigilant about eliminating anything flammable within five feet from the home or structure. This includes removing plantings, cuttings, mulch, or woody debris. Ground cover in this area should be non-flammable, such as gravel, cement, or flagstone.
3. Don't store firewood or other combustibles next to, on, or under decks, stairs, or wooden projections.
4. Maintain an irrigated greenbelt or other non-combustible ground cover around buildings.
5. Maintain and clean spark arresters on any chimneys.
6. Connect and have available a minimum of 50 feet of garden hose near all buildings to extinguish small fires before they spread. For large buildings, two or more hoses may be required to provide adequate coverage.
7. Trees, large shrubs, and other vegetation along driveways should be pruned as necessary to maintain a minimum of 15 feet of vertical clearance for emergency vehicle access. This recommendation is for both conifers and deciduous trees.
8. Install illuminated, or reflective, house numbers so that they are clearly visible from the main road. Illuminated or reflective numbers should also be visible on the structure itself.
9. Maintain the defensible space around buildings by:
    a. Mowing grass and weeds to a height of four inches or less.
    b. Removing any branches overhanging roofs or chimneys.
    c. Removing all trash, debris, and cuttings from the defensible space. Debris and cuttings should be removed entirely from the area and never dumped into adjacent wildlands or vacant lots.

It is essential to remember that fire mitigation is not a one-time job. Defensible space should be maintained year-round, and reducing structural ignitibility is an ongoing process. Detailed information for achieving these goals can be found in the Home Ignition Zone section and on the Colorado State Forest Service website: csfs.colostate.edu/wildfire-mitigation.

RECOMMENDATIONS FOR CITY AND PARTNER ORGANIZATIONS

It is the intent of the City of Lone Tree and its partners to reduce wildfire risk in a cost-effective manner, while maintaining the aesthetic qualities of the WUI. Wildfire risk reduction recommendations are in accordance with the Lone Tree Municipal Code and all other applicable requirements of the locally adopted 2021 International Fire Code, 2021 International Building Code, and 2021 International Residential Code.

Fuels Reduction

- Continue collaboration with higher-risk neighborhoods in the WUI to develop priorities for projects

    - Explore ideas like goats, Mile High Youth Corps, rock barriers, etc. with SSPRD, RRMD, and HOAs for higher-risk areas on City land, inaccessible to mowers
- Evaluate areas of high load level and fuel behavior surface fuels, particularly those adjacent to structures and roads, and develop mitigation strategies to reduce potential severity from fires
- Continue to work with HOAs in priority WUI communities to identify and implement vegetation management practices
- Collaborate with adjacent jurisdictions, such as Arapahoe County, Douglas County, and Town of Parker, to identify opportunities for cross-jurisdictional mitigation efforts

Education and Outreach

- Expand outreach efforts that educate residents on the importance of the HIZ and how to take action to minimize the risk of homes and structures igniting from wildfire
- Develop and implement a public education campaign focused on human-caused wildfire prevention, emphasizing common ignition sources such as improperly discarded cigarettes, fireworks, outdoor equipment use, and vehicle-related sparks
- Develop an annual mailer campaign, highlighting preparedness & wildfire risk reduction topics
- Continue efforts with the City's Communications team to expand wildfire protection communications through social media, Timberlines e-newsletter, City website, and City events
- Continue partnership with SMFR to support neighborhood assessment days; explore expansion opportunities/additional days
- Continue efforts for increased CodeRed signups
- Create an easily accessible brochure related to home hardening, to disseminate with building permit submittal information
- Partner with SMFR and Douglas County for public education course/workshop on defensible space
- Partner with SSPRD and Rampart Range on homeowners' responsibility between their property and mow line
- Update City's wildfire mitigation and preparedness webpages, to provide actionable information relevant to the Lone Tree community
- Promote and distribute information about fire resistant landscaping to HOAs' property management companies, and any agency with authority over implementation of landscaping choices

- Encourage families to know the routes out of their neighborhood and to practice their family evacuation plan

Land Use Planning

- Codify wildfire protection measures for new construction, or establish preferred building standards, to include:
    - 1/8” wire mesh minimums for screen vents
    - Noncombustible or ignition-resistant material for fencing within 5 feet of a structure
    - Noncombustible material, fire-retardant-treated wood, or ignition-resistant material for decks
- Maintain or enhance the wildfire risk assessment and mitigation plans for new construction
- Assess regulatory best practices and model land use and building codes for possible application to development in Lone Tree to facilitate wildfire resiliency goals and to improve structural hardening throughout the City. Resources to support these efforts include the International Code Council’s Wildland Urban Interface Code, National Fire Protection Association Standards, and guidance/regulations provided by the State of Colorado.

Continue to Identify and Evaluate Wildfire Hazards

- Develop CWPP Phase II, to include new risk analysis after development of east of I-25
- Work with more vulnerable community institutions, such as HCA HealthOne at Sky Ridge, MorningStar Senior Living, Tall Tales Ranch, and schools, to create risk reduction and evacuation plans
- Work with water and utilities providers to identify and mitigate risk to infrastructure and services in Lone Tree

Expand Preparedness and Partnerships

- Develop citywide evacuation plan
- Expand partnership with other adjacent jurisdictions, such as Arapahoe County, City of Centennial, and Town of Parker, to build relationships and collaborate on emergency planning
- Involve water districts and watershed agencies that serve Lone Tree in wildfire planning and protection
- Continue interagency coordination to maintain a community presence and to develop and distribute public information regarding fuel reduction efforts throughout the city

Implementation Strategies

Strategies for mitigating risk are applied to the following scales: City, individual property owners, HOAs and other neighborhood groups, community partners, such as South Metro Fire Rescue (SMFR), South Suburban Parks and Recreation District (SSPRD), Rampart Range Metro District (RRMD), Douglas County, etc., and non-profit groups, to accomplish the short-, mid- or long-term. Strategies include methods for fuels reduction, interagency cooperation, community engagement, and steps that residents, property owners, and community partners can take to prepare for a wildfire event. *The following table was created in partnership with The Ember Alliance.*

Implementation Phases

Short-Term Action	Mid-Term Action	Long-Term Action
• Has the highest potential for immediate return-on-investment • Can be funded within the current capacity of the City and partner organizations, with some supplemental funding from available grants • Can occur with modest expansion of the current City staff and partner organizations • Can capitalize on current relationships with emergency response partners, land management agencies, and non-profit organizations	• Requires moderate expansion of financial and/or implementation capacity of the City and partner organizations • Requires new cooperative relationships with emergency response partners, land management agencies, and non-profit organizations • Requires greater level of coordination among partners • Requires greater level of community discussion and decision making	• Requires multi-year planning and funding • Requires extensive grant funding • Requires substantial expansion of financial and implementation capacity of the City and partner organizations • Requires substantial coordination among partners • Requires substantial community discussion and decision making

Implementation Activities and Responsibilities

Recommendation	Responsibility	Timeframe
Category: Fuels Reduction		
Identify and prioritize fuel treatment projects on public land, including areas near Montecito, Retreat at RidgeGate, HCA HealthONE at Sky Ridge Medical Center, Yosemite Commons, Prominence Point, McArthur Ranch, Heritage Estates, and Carriage Club.	City, SSPRD, RRMD, HOAs, Residents, Businesses	Short-term
Evaluate and develop mitigation strategies for areas adjacent to structures and roads containing high load level and fuel behavior surface fuels.	City, Metro Districts, HOAs	Long-term
Assess gaps/needs in wildfire management practices on public land.	City, SSPRD, RRMD, Douglas County	Mid-term
Remove vegetation and other flammable materials within 5 feet of a home or structure.	Residents, Businesses	Short-term
Collaborate with neighbors to develop defensible space goals. Islands of treatments are not nearly as effective as community-level treatments that are connected.	Residents, HOAs	Short-term
Track and pursue grants and other funding opportunities, as appropriate.	City	Short-term
Maintain open space treatments in or adjacent to subdivisions, including 10-foot buffers from property lines and weed control in RRMD-maintained and SSPRD-maintained open space areas, and six-foot buffers along trails and weed control in the Bluffs Regional Park.	City, SSPRD, RRMD, Douglas County	Short-term
Explore opportunities for a slash management program for residents.	City	Long-term

Category: Outreach		
Provide welcome packets to new residents and businesses with information on wildfire preparedness, mitigation resources, and human-caused wildfire prevention.	City, HOAs, Business Improvement Districts (BIDs)	Short-term
Host all CWPP information on the City's website, along with other resources about wildfire risk and preparedness.	City	Short-term
Connect HOAs and Residents with resources to establish neighborhood ambassador programs across individual neighborhoods or subdivisions. These programs, such as Fire Adapted Colorado and Wildfire Adapted Partnership, provide the tools and professional support for residents to lead wildfire mitigation and adaption in their neighborhood.	HOAs, Residents	Mid-term
Evaluate and implement best practices for effective communication strategies used to motivate and educate private landowners.	City, SMFR	Short-term
Hold an annual wildfire mitigation and preparedness event.	SMFR, in partnership with City and Douglas County	Short-term
Partner with and support SMFR and Douglas County risk reduction programs and events.	City, SMFR, Douglas County	Short-term
Category: Land Use Planning & Policy		
Engage Planning Commission and City Council for consideration of adopting greater wildfire protection measures into Code.	City	Mid-term
Develop and adopt wildfire mitigation plans and associated land use maintenance policies for all open space and trails managed and maintained by SSPRD and RRMD.	RRMD, RidgeGate, SSPRD, City	Short-term

Monitor the Colorado Wildfire Resiliency Code currently underway and adjust local codes accordingly for compliance. Reassess local and state wildfire resiliency codes at the CWPP five-year update.	City	Short-term
Category: Preparedness		
Develop a citywide evacuation plan.	City, SMFR, Douglas County	Mid-term
Ensure members of your household/business are signed up for CodeRed.	Residents, HOAs, Businesses	Short-term
Develop a family evacuation plan and go-bags.	Residents	Short-term
Category: Identify and Evaluate Hazards		
Implement wildfire detection cameras/sensors in Lone Tree.	City, SMFR, Xcel, Douglas County	Mid-term
Update the CWPP as new information becomes available.	City, Core Team	Mid-term

MONITORING AND OVERSIGHT

The Lone Tree CWPP is a guide and blueprint for action, developed by the Core Team. It should be revisited and reviewed annually, at minimum, by the City of Lone Tree and the Core Team. CWPPs are designed to be collaborative because effectively reducing wildfire risk must be a community-wide effort. Ongoing collaboration with residents, neighborhood-based organizations, partner agencies, and all stakeholders is key to moving the plan forward, implementing mitigation recommendations, and maintaining the CWPP as Lone Tree's wildfire risk characteristics change overtime.

The Lone Tree CWPP is a valuable resource that provides the foundation for understanding wildfire risks and hazards, and presents attainable goals designed to reduce potential losses from wildfire. The CWPP encourages residents, businesses, and HOAs to take an active role in identifying needs, developing strategies, and implementing solutions to address wildfire hazards and risks. Individual neighborhoods and communities can take further action by developing their own CWPPs, which would serve as a subplan to this Citywide CWPP. Proactive neighborhoods,

communities, and homeowners can seek support and guidance through a variety of local, state, and federal resources identified in this plan, including South Metro Fire Rescue, Colorado State Forest Service, Douglas County, USFS, and conservation districts.

The HFRA authority and the FEMA Disaster Mitigation Act of 2000 require adoption of this plan. With formal adoption, participating agencies and WUI neighborhoods will be eligible for available hazardous fuels and non-fuels mitigation funding that may assist with plan implementation. Furthermore, adoption of this plan highlights a collaborative planning and development process between the City of Lone Tree, partner agencies, and neighborhood organizations.

Monitoring

Monitoring is a critical component of community wildfire hazard reduction, as it provides a base for tracking implementation of planned activities and evaluating how the goals of the CWPP are being met over time. The data gathered will help determine if the objectives of the plan are being met, if changes need to be made, and if the plan is being implemented as envisioned. It is recommended that CWPP monitoring progress be recorded by Lone Tree emergency management.

As part of monitoring, the oversight team should check off goals as they are accomplished and celebrate treatments, outreach events, new partnerships, and other accomplishments. Keep track of the work that happens between updates, take pictures, and collect implementation ideas for the next update.

The assessment methodology utilized in this plan is a standardized, well-documented hazard and risk survey approach that is designed to provide a benchmark against which future assessments can be compared. Successes, challenges, and new concerns should be noted and subsequently guide any modifications to the CWPP that better accommodate the changing landscape.

Updates to the CWPP

The Colorado State Forest Service requires CWPPs to be updated on a regular basis. The Lone Tree CWPP should be formally updated on the fifth anniversary of the signing of this document, and every five years thereafter.

As new development continues in Lone Tree, the WUI and other wildfire risk factors may change, and an update to this CWPP will be necessary to identify the changing needs of the community. The update to the CWPP should include:

- A description of progress made since the CWPP was created.
- A description of demographic changes in the community and other important infrastructure changes.
- Identification of new risks in the community.
- Updated risk analysis if major changes have happened between revisions.
- Updated and prioritized projects for the community with maps and descriptions

A primary purpose of the CWPP review and update is to engage additional parties and stakeholders in the CWPP planning process. Many stakeholders may not have been identified during this iteration of the Lone Tree CWPP. Annual reviews of the CWPP allow for updates to be made administratively and provide opportunities for increased collaboration across the community. The CWPP Core Team should continue outreach to interested stakeholders and invite them to become active participants in the CWPP planning and monitoring.

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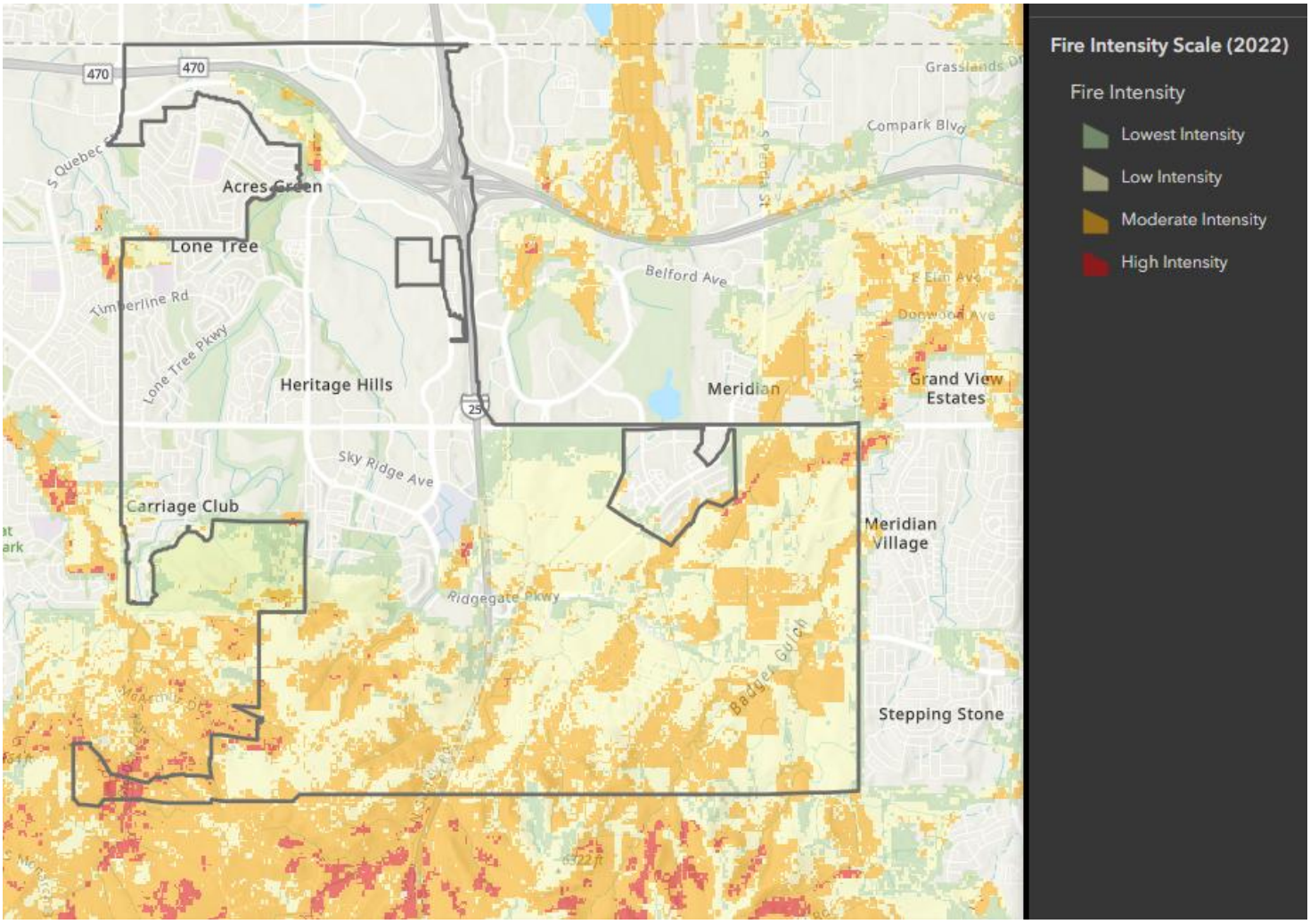
APPENDIX A: MODELS

Appendix A.1: Fire Intensity Scale

Colorado State Forest Service CO-WRA, 2022



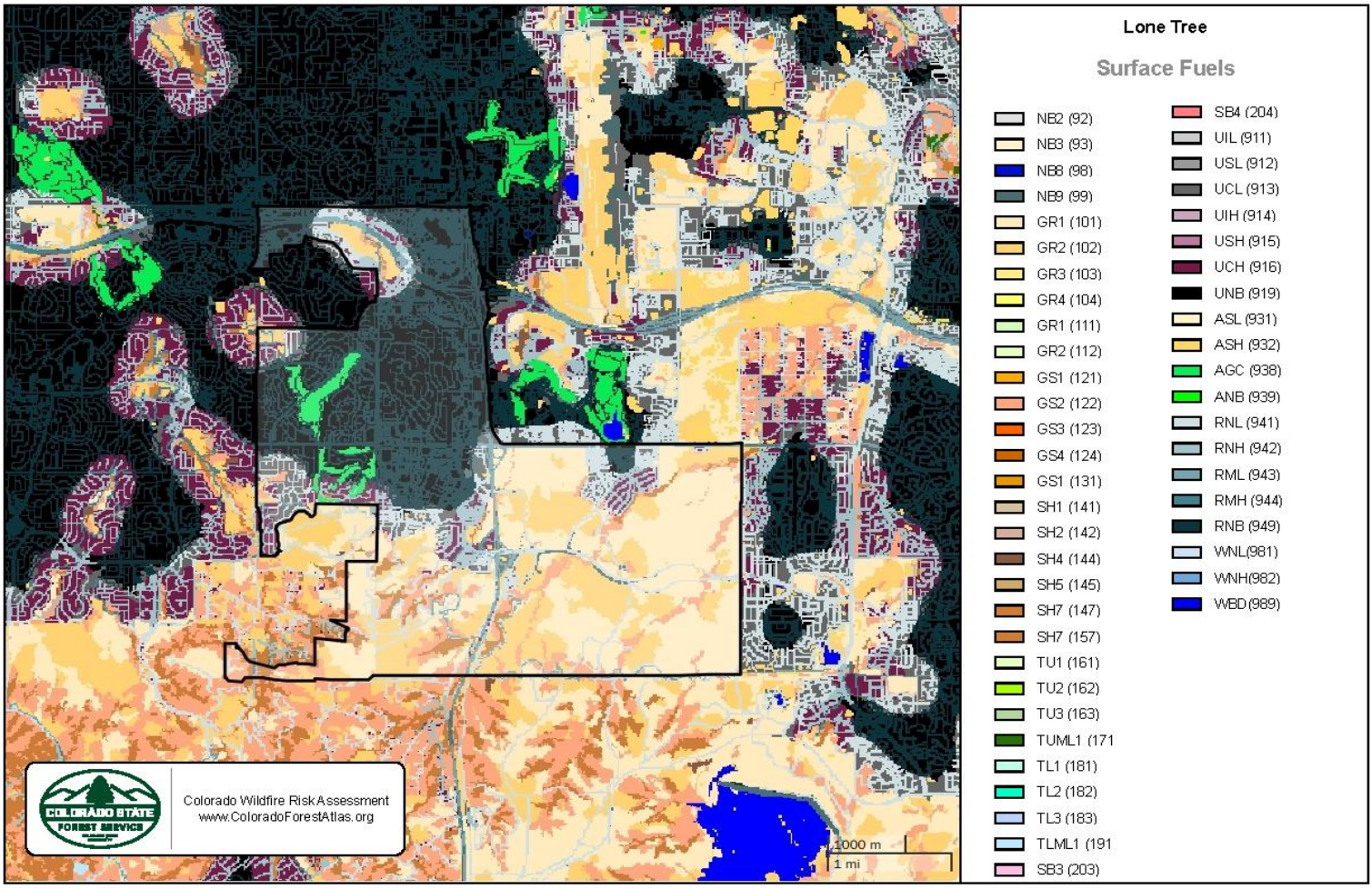
Appendix A.2: Surface Fuels

Colorado State Forest Service CO-WRA, 2022

Surface Fuels Legend

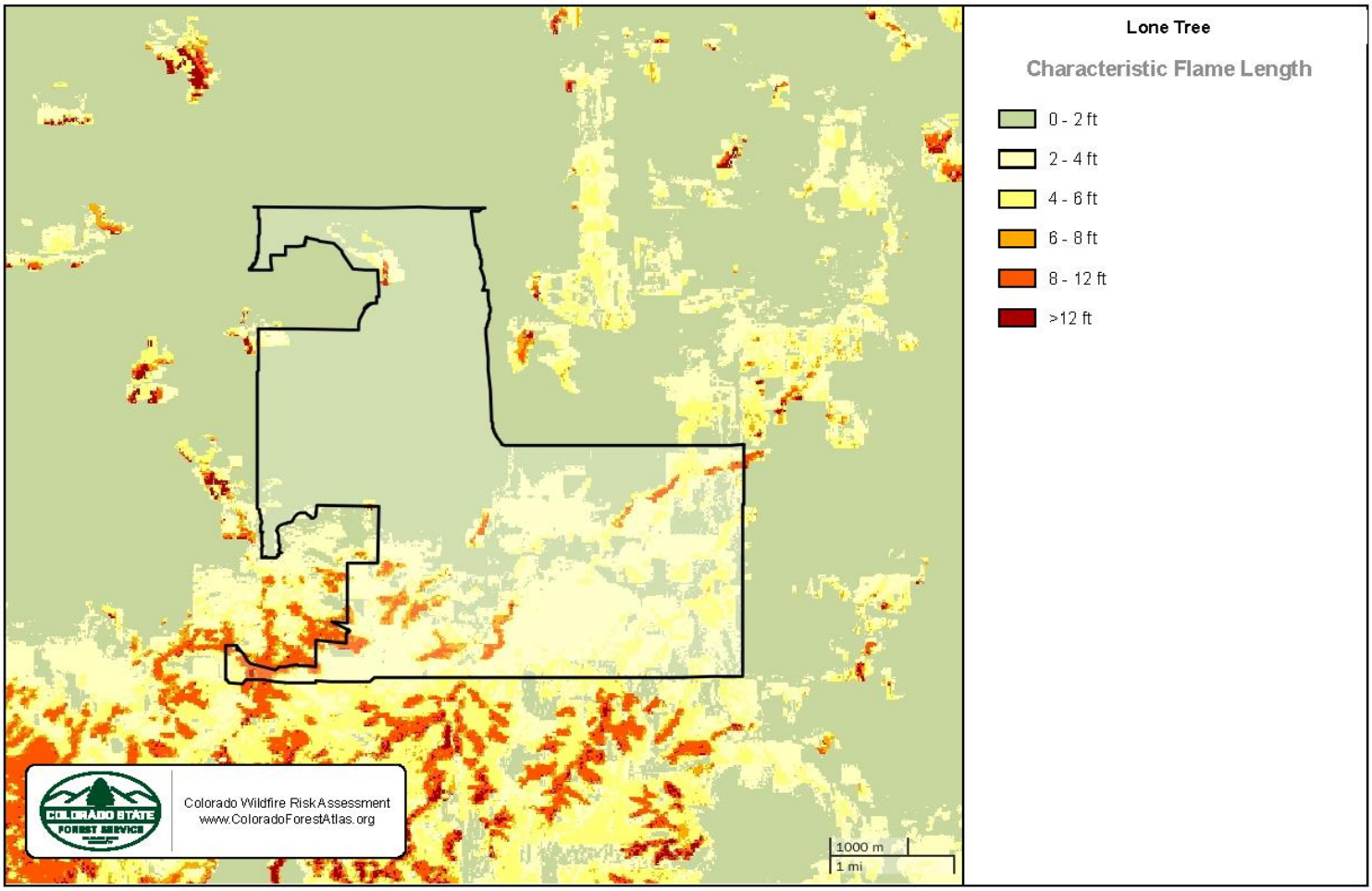
Surface Fuels	Description	Acres	Percent
NB2 (92)	Snow/Ice		0%
NB3 (93)	Agricultural		0%
NB8 (98)	Open Water		0%
NB9 (99)	Bare Ground	33	0.5%
GR1 (101)	Short, Sparse Dry Climate Grass	1,560	23.9%
GR2 (102)	Low Load, Dry Climate Grass	959	14.7%
GR3 (103)	Low Load, Very Coarse, Humid Climate Grass		0%
GR4 (104)	Moderate Load, Dry Climate Grass		0%
GR1 (111)	Short, Sparse Dry Climate Grass - ALPINE		0%
GR2 (112)	Low Load, Dry Climate Grass - ALPINE		0%
GS1 (121)	Low Load, Dry Climate Grass-Shrub		0%
GS2 (122)	Moderate Load, Dry Climate Grass-Shrub	403	6.2%
GS3 (123)	Moderate Load, Humid Climate Grass-Shrub		0%
GS4 (124)	High Load, Humid Climate Grass-Shrub		0%
GS1 (131)	Low Load, Dry Climate Grass-Shrub - ALPINE		0%
SH1 (141)	Low Load Dry Climate Shrub		0%
SH2 (142)	Moderate Load Dry Climate Shrub	2	0%
SH4 (144)	Low Load, Humid Climate Timber-Shrub		0%
SH5 (145)	High Load, Dry Climate Shrub		0%
SH7 (147)	Very High Load, Dry Climate Shrub	71	1.1%
SH7 (157)	Very High Load, Dry Climate Shrub	62	0.9%
TU1 (161)	Low Load Dry Climate Timber-Grass-Shrub		0%
TU2 (162)	Moderate Load, Humid Climate Timber-Shrub		0%
TU3 (163)	Moderate Load, Humid Climate Timber-Grass-Shrub		0%
TUML1 (171	Timber Understory Dynamic ML (TSYL 2022)		0%
TL1 (181)	Low Load Compact Conifer Litter		0%
TL2 (182)	Low Load Broadleaf Litter		0%
TL3 (183)	Moderate Load Conifer Litter	2	0%
TLML1 (191	Timber Litter ML (TSYL 2022)		0%
SB3 (203)	High Load Activity Fuel or Moderate Load Blowdown		0%
SB4 (204)	High Load Blowdown		0%
UIL (911)	Isolated urban surrounded by Low FB fuel		0%
USL (912)	Scattered urban surrounded by Low FB fuel		0%
UCL (913)	Urban core surrounded by Low FB fuel	195	3%
UIH (914)	Isolated urban surrounded by High FB fuel		0%
USH (915)	Scattered urban surrounded by High FB fuel		0%
UCH (916)	Urban core surrounded by High FB fuel	162	2.5%
UNB (919)	Unburnable urban areas	853	13.1%
ASL (931)	Agricultural Low Load Fuels, with seasonal changes of its Burnable condition		0%
ASH (932)	Agricultural High Load Fuels, with seasonal changes of its Burnable condition	16	0.2%
AGC (938)	Golf courses - Non-Burnable (no encroachment)	109	1.7%
ANB (939)	Agricultural Fields, maintained in a Non-Burnable condition		0%
RNL (941)	Minor roads Low FB	525	8%
RNH (942)	Minor roads High FB	178	2.7%
RML (943)	Major roads Low FB	141	2.2%
RMH (944)	Major roads High FB	31	0.5%
RNB (949)	Roads surrounded by non-burnable fuels	1,216	18.7%
WNL(981)	Minor Water streams surrounded by Low Load Fuel (moderate encroachment)		0%
WNH(982)	Minor Water streams surrounded by High Load Fuel (high encroachment)		0%
WBD(989)	Water Bodies		0%
	Total	**6,516**	**100%**

Surface Fuels Map



Appendix A.3: Characteristic Flame Length

Colorado State Forest Service CO-WRA, 2022



APPENDIX B: ADDITIONAL RESOURCES

- Colorado Wildfire Risk Assessment Report (CO-WRA)
- CodeRED Emergency Alerts
- CSFS Home Ignition Zone (HIZ) Guide
- CSFS Fire-Resistant Landscaping
- CSFS Low-Flammability Landscape Plants
- CSFS Wildfire Mitigation
- CSFS Wildfire Mitigation and Planning Publications
- DORA Toolkit for Homeowners and HOAs on Insurance
- Douglas County Wildfire Mitigation
- Fire Adapted Communities Resources
- Firewise USA® Resources
- Firewise USA® Education and Research
- Headwater Economics, Building a Wildfire-Resistant Home: Codes and Costs
- Ready.gov Wildfire Preparedness

APPENDIX C: CSFS LOW-FLAMMABILITY PLANT LIST

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Low-Flammability Plant Characteristics

Recommendations on this list are based on a methodology developed by Idaho Firewise in Boise, Idaho. The methodology rates the flammability of plants based on specific characteristics ranked on a scale of 0-10 with 0 the most flammable and 10 the least flammable. To create the highest degree of protection for structures, the recommendation is to plant only plants with scores of 8, 9 and 10 for zones 1 and 2 within the first 30 feet from the home. These species are the least flammable plants to plant near structures, but keep in mind that there are no truly "fireproof" plant species. Existing vegetation with scores below an 8 (indicating more flammability) is addressed in the Fire-Resistant Landscaping fact sheet (6.303). Plants that have lower flammability and are more resistant to wildfire and plants that have a higher flammability and are less resistant to wildfire have these specific characteristics:

Attributes that decrease flammability

- **Low oil or resin content**
- **High moisture content**
- **Soap, latex or pectin content**
- **Compact growth form**
- **Green stems**
- **Drought tolerant**

Attributes that increase flammability

- **High oil or resin content**
- **Low moisture content**
- **Tall growth**
- **Open form**
- **Fine wood (twiggy) stems**
- **High water need**

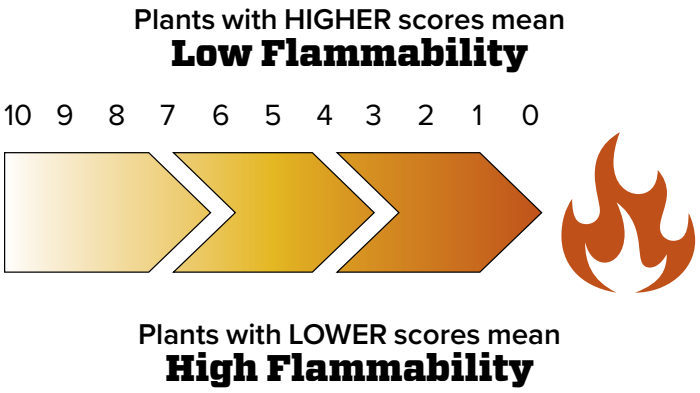
Many plants are highly flammable during different seasons of the year. At such times, left unmanaged, they can accelerate the spread of a wildfire that can harm communities. All vegetation, naturally occurring and otherwise, is potential fuel for fire. Its type, amount and arrangement have a dramatic effect on fire behavior.

There are no "fireproof " plant species. Plant choice, spacing and maintenance are critical to reduce the risk adjacent to the structure.

There are many concepts to consider when choosing low-flammability plants. A plant's moisture content is the single most important factor governing its volatility. However, resin content and other factors in some species render them flammable even when the plant is well watered. Conifers tend to be flammable due to their oil and pitch content, regardless of their water content. Deciduous plants tend to be more fire resistant because their leaves have higher moisture content and their basic chemistry is less flammable. Also, when deciduous trees are dormant, there is less fuel to carry fire through their canopies.

In some cases, there is a strong correlation between drought tolerance and fire resistance. These plants offer less fuel or have a higher moisture content, both of which help reduce fire hazard. There also appears to be a correlation between a plant's salt tolerance and natural fire resistance. Plants adapted to salty conditions, and actually growing in salty situations, may better resist burning.

Most of Colorado's native vegetation is adapted to fire and is flammable. Common flammable plants have flammability scores less than 8. Common flammable trees are junipers, pines, firs and spruces. Common flammable shrubs are Gambel oak, three-leaf sumac and mountain mahogany. Planting of these species is discouraged adjacent to the home in defensible space zones 1 and 2. If they're already present, consider replacing them with some of the recommended species included in this fact sheet. If you decide to keep a flammable plant in your landscape, keep it pruned and thinned, remove dead material regularly, and keep it at least 30 feet from any structure or other plants. See the Fire-Resistant Landscaping fact sheet (6.303) for more information on these mitigation measures.



KEY				
Water Needs	VL = very low	L = low	M = medium	H = high
Sun/Shade	S = sun	PS = part sun	Sh = shade	Prt Sh = part shade

Native, low-water plants

Native, low-water flowers and ground covers

Scientific Name	Common Name	Approx. Water Needs	Sun/Shade Preference	Approx. Mature Height	Flower Color	Elevation in 1,000' Increments	Approx. Bloom Time	Low Flammability Rating
Achillea lonulosa, now A. millefolium	common yarrow	**L-H**	**S/PS**	1.5-2'	white	5-10 K	Jul	9.5
Allium cernuum	nodding onion	**L-H**	**S/PS**	1'	pink/purple	5-10 K	Jun	10
Allium geyeri	Geyer's onion	**L-H**	**S/PS**	1'	pink	5-10 K	Jun	10
Antennaria parvifolia	small-leaf pussytoes	**M**	**S/PS**	<.5'	creamy white	5-10 K	Jun	8
Antennaria rosea	rosy pussytoes	**M**	**S/PS**	<.5'	rose	5-10 K	Jun	8
Aquilegia chrysantha	golden columbine	**M-H**	**S/PS**	1-2'	yellow	5-10 K	Jun-Aug	8
Asclepias tuberosa	common butterfly weed	**L**	**S**	1-2'	orange	5-6 K	Summer	8
Symphyotrichum (f. Aster) laeve	smooth aster	**L-H**	**S/PS**	1-3'	blue/ lavender	5-10 K	Aug-Sep	8
Symphyotrichum (f. Aster) porteri	porter aster	**L-M**	**S**	1'	white	5-10 K	Aug-Sep	8
Astragalus utahensis	Utah milkvetch	**L**	**S**	.5'	pink/purple	5-6 K	Spring	8
Callirhoe involucrata	poppy mallow	**L**	**S**	5"	pink/white	5-8 K	Summer	8
Calochortus gunnisonii	Gunnison's mariposa lily	**M-H**	**S**	.5-2'	white	5-10 K	Jul-Aug	8
Campanula rotundifolia	harebell; bluebells of Scotland	**M-H**	**S**	.5-1'	blue	5-10 K	May-Oct	9.5
Claytonia lanceolata	western spring beauty	**M**	**Sh**	.5-1.5'	white	5-10 K	Mar-Apr	9.5
Coreopsis tinctoria	plains coreopsis	**L-M**	**S**	2.5-3'	yellow	5-9 K	Summer	8
Erysimum capitatum	western wallflower	**M**	**S/PS**	1'+	yellow	5-10 K	Jun-Jul	9
Gaillardia aristata	blanketflower	**L-M**	**S**	1-1.5'	yellow-reddish	5-10 K	Jul-Sep	8
Galium boreale	northern bedstraw	**M-H**	**Sh**	<1'	white	5-10 K	May-Jun	8
Geranium caespitosum	Rocky Mountain geranium	**M**	**Sh/PS**	2'	pink/purple/ white	5-10 K	May-Oct	8
Geum triflorum	prairie smoke	**M-H**	**S/PS**	1.5'	reddish pink	5-10 K	Jun	8
Leucocrinum montanum	sand lily	**L-M**	**S**	<1'	white	5-8 K	May	10
Linum lewisii	Lewis or blue flax	**L**	**S**	2.5'	blue	5-8 K	Late Spring-Early Summer	8
Lupinus argenteus	silvery lupine	**M**	**Sh/PS**	1-3'	blue	5-10 K	Jun-Jul	8
Mertensia lanceolata	prairie bluebell	**M**	**Sh/PS**	1-2'	blue	5-10 K	May-Jun	10

Scientific Name	Common Name	Approx. Water Needs	Sun/Shade Preference	Approx. Mature Height	Flower Color	Elevation in 1,000' Increments	Approx. Bloom Time	Low Flammability Rating
Native, low-water flowers and ground covers cont.								
Oenothera speciosa	evening primrose	**L-M**	**S**	1-1.5'	white-pink	4-7 K	May-Jul	8
Penstemon caespitosus	mat penstemon	**L-M**	**S**	<.5'	purple	5-10 K	Jun	8
Penstemon secundiflorus	sidebells penstemon	**L-M**	**S**	1-2'	blue/violet/ pink	5-9 K	May-Jun	8
Penstemon teucrioides	germander beardtongue	**L-M**	**S**	.5'	purple/ violet	5-10 K	Jun-Jul	8
Penstemon spp.	penstemon species, cultivars	**L-M**	**S**	1-2.5'	blue/purple/ violet	5-9 K	Summer	8
Penstemon strictus	Rocky Mountain penstemon	**L-M**	**S**	2-2.5'	purple/ violet	5-10 K	May-Jul	8
Penstemon virens	Front Range beardtongue	**M**	**S/PS**	.5'	blue	5-10 K	May-Jun	8
Sedum lanceolatum	yellow stonecrop	**M**	**S/PS**	.5'	yellow	5-10 K	Jul-Aug	10
Thermopsis rhombifolia var. divaricarpa	spreadfruit golden banner	**M-H**	**S/PS**	2'	yellow	5-10 K	May	8
Native, low-water shrubs, trees and cacti								
Amelanchier alnifolia v. utahensis	Utah serviceberry	**VL-M**	**S**	4-6'	white	5-7 K	May	7.5
Cylindropuntia spp.	Cholla	**VL-M**	**S**	3-5'	pink	5-6 K	Jun	8
Opuntia spp.	prickly pear	**VL**	**S**	.5-1'	yellow/pink	5-7.5 K	May	10
Philadelphus lewisii	Cheyenne mock orange	**M**	**S**	2-3'	white	5-9 K	Jun	8
Populus tremuloides	aspen	**M**	**S**	8-25'	catkins	5-10 K	n/a	9
Rhus glabra	smooth sumac	**L**	**S**	3-5'	yellow	5-8 K	Apr	8
Rhus trilobata 'Autumn Amber'	Autumn Amber sumac	**L**	**S/PS**	1'	yellow	5-7.5 K	Apr	8
Symphoricarpos albus	snowberry	**M**	**S/PS**	2-3'	white/pink	5-9 K	n/a	8
Yucca baccata	banana yucca	**VL-L**	**S/PS**	2-3'	white	5-6 K	Jun	8
Yucca glauca	soapweed, Great Plains yucca	**VL-L**	**S/PS**	2-3'	white	5-7 K	Jun	8
Non-native, low-water plants								
Non-native, low-water flowers and ground covers								
Aegopodium podagraria "Variegatum"	variegated bishop's weed, goutweed	**M**	**S/PS**	8"	white	5-8 K	not showy	8
Ajuga reptans	bugleweed	**H**	**Sh**	<.5'	blue	5-10 K	Jun-Jul	8
Alchemilla mollis	Lady's mantle	**M-H**	**PS/Sh**	1'	yellow	5-9 K	Jun-Jul	8
Arabis spp.	rockcress	**L-H**	**S**	<1'	white	5-10 K	May-Jun	8
Armeria maritima	sea thrift	**L-H**	**S/PS**	.5'	white	5-10 K	Apr-Jun	8
Aubrieta spp.	false rockcress	**M**	**S**	1'	pink/white/ purple	5-9 K	Apr-May	8
Aurinia saxatilis	basket of gold	**M**	**S/PS**	1'	yellow	5-9 K	Apr-May	8

Scientific Name	Common Name	Approx. Water Needs	Sun/Shade Preference	Approx. Mature Height	Flower Color	Elevation in 1,000' Increments	Approx. Bloom Time	Low Flammability Rating
Non-native, low-water flowers and ground covers cont.								
Bergenia cordifolia	heartleaf bergenia, pigsqueak	**M**	**PS/Sh**	1'	pink/purple	5-9 K	Spring	8
Centranthus ruber	Jupiter's beard	**L-H**	**S/Sh**	2-2.5'	red	5-9 K	May-Oct	10
Cerastium alpinum v. lanthanum	alpine mouse-ear	**M**	**S/PS**	1'	white	5-10 K	May-Jun	8
Cerastium tomentosum	snow-in-summer	**L-M**	**S/PS**	1'	white	5-9 K	May-Jun	8
Ceratostigma plumbaginoides	plumbago	**L**	**S/Sh**	.5'	blue	5-6 K	Fall	8
Convallaria majalis	Lily-of-the-valley	**H**	**Sh**	<1'	white	5-9 K	May-Jun	8
Coreopsis spp.	tickseed, coreopsis	**M**	**S**	1.5-2'	yellow	5-8 K	Summer	8
Delosperma nubigenum	hardy yellow ice plant	**M-H**	**S**	.5'	chartruese-yellow	5-8 K	Jun	10
Delosperma spp.	ice plant	**L**	**S**	1.5-2'	yellow	varies	Spring	10
Dianthus spp.	pink	**L-H**	**S**	<.5'-2'	pink	5-10 K	May-Aug	9
Diascia integerrima 'Coral Canyon'	Coral Canyon twinspur	**M**	**S/Prt Sh**	1-1.5'	rose-pink	4-7 K	Summer	9
Doronicum spp.	Leopard's bane	**H**	**S/PS**	2-3'	yellow	5-9 K	Jul-Aug	10
Echeveria spp.	hens-n-chicks	**L**	**S/Prt Sh**	1-2'	varies	5-9 K	Summer	8
Ephedra regeliana	Regel's jointfir	**L**	**S**	6-12"	yellow	5-12 K	Spring	8
Erysimum linifolium	wallflower	**L**	**S**	1-3'	varies	4.5-12 K	Spring-Summer	9
Euonymus fortunei	winter creeper	**M**	**S/Prt Sh**	3'	green-white	4.5-8 K	Spring	8
Euphorbia polychroma	cushion spurge	**L**	**S**	12-18'	yellow	5-8 K	Spring	10
Euphorbia × martini 'Mini Martini'	Martini's spurge	**L-H**	**S**	1.5-2'	chartruese	4-6 K	Late Spring	10
Fragariaspp.	wild strawberries	**M**	**S/Prt Sh**	.25-.75"	white	5-11 K	Summer	9
Geranium spp.	hardy geraniums	**M**	**Sh/PS**	2'	blue/pink/purple/white	5-10 K	May-Oct	8
Helianthemum nummularium	rockrose, sunrose	**M-H**	**S**	<1'	pink	5-8 K	May-Jun	8
Hemerocallis sp.	daylilies	**L-M**	**S/PS**	1-3'	yellow/red/orange	5-7.5 K	Summer	10
Iberis sempervirens 'Little Gem'	Little Gem evergreen	**M**	**S**	.5-1'	white	4.5-9 K	Spring	8
Iris germanica	bearded iris	**L-M**	**S**	1-3'	numerous colors	5-10 K	May-Jun	8
Kniphofia uvaria	red hot poker	**L**	**S**	3'	red/yellow	5-6 K	Summer	8
Lamium spp.	spotted deadnettle	**M-H**	**Sh**	<1'	white/purple/pink	5-10 K	May-Jun	8
Lilium spp.	lilies	**M**	**S/Prt Sh**	1-8'	varies	4-6.5 K	Summer	10
Lupinus spp.	lupine	**L-M**	**S/PS**	2-3'	lavender blue	5-10 K	Summer	8
Marrubium rotundifolium	silver-edged horehound	**VL-L**	**S**	1.5-2.5'	white	5-6 K	Early Summer	8

Scientific Name	Common Name	Approx. Water Needs	Sun/Shade Preference	Approx. Mature Height	Flower Color	Elevation in 1,000' Increments	Approx. Bloom Time	Low Flammability Rating
Non-native, low-water flowers and ground covers cont.								
Muscari armeniacum	grape hyacinth	**M**	**S/PS**	6-9"	blue	4.5-10 K	Spring	10
Nierembergia gracilis 'Starry Eyes'	Starry Eyes' cupflower	**M**	**S**	10"	purple (lt. lav.)	4.5-5.5 K	Summer/ Late Summer	8
Nierembergia repens	creeping white cup	**M-H**	**S/PS**	2-4"	white	4.5-5.5 K	July-Sep	8
Oenothera berlandieri	Berlander's sundrop	**L-M**	**S**	1'	yellow	4.5-6.5 K	Early Summer-Fall	8
Pachysandra terminalis 'Green Sheen'	Green Sheen pachysandra	**M-H**	**Sh**	6-8"	white	4-8 K	April-May	8
Papaver orientale	Oriental poppy	**H**	**S/Sh**	2-3'	orange/ pink/red	5-10 K	May-Jun	9
Polemonium spp.	Jacobs ladder	**H**	**S/PS**	1-2'	blue/white	5-10 K	May-Aug	8
Polygonatum commutatum	great Soloman's seal	**M-H**	**PS/Sh**	2'	white	4-10 K	May-Jun	8
Salvia officinalis	common or garden sage	**L-M**	**S/PS**	2'	blue-lavender/ pink/ lavender	5-8 K	Jun	7.5
Saxifraga hirsuta	saxifrage	**H**	**S/PS**	.5'+	white	5-10 K	May-Jun	8
Scutellaria alpina'Moonbeam'	alpine skullcap	**M**	**S/PS**	.5-1'	white/ purple	4-8 K	May	8
Sedum spp.	stonecrop	**M**	**S/PS**	1-1.5'	yellow	5-10 K	Jul-Aug	10
Sempervivum spp.	hens and chicks, houseleeks	**L-M**	**S/PS**	.5'	pink	5-10 K	n/a	10
Solidago sphacelata 'Golden Fleece'	Golden Fleece goldenrod	**VL-M**	**S**	1-1.5'	yellow	4-8 K	Aug-Sep	8
Thymus serpyllum 'Minus'	Elfin thyme	**L**	**S**	1-3"	pink	4-10 K	Early-Late Summer	8
Trifolium spp.	clover	**M**	**S/PS**	1-2'	white/ purple/pink	varies/spp.	varies: May-Oct	8
Veronica pectinata	woolly creeping speedwall	**L-M**	**S**	<.5'	blue	5-9 K	Apr-Jul	8
Vinca minor	common periwinkle	**H**	**Sh**	<1'	white	5-10 K	Apr-Jun	8
Waldsteinia spp.	Barren strawberry	**M-H**	**Sh/PS**	<1'	yellow	5-9 K	May-Jun	8

Non-native, low-water trees and shrubs								
Berberis thunbergii 'Atropurpurea Nana'	crimson pygmy Japanese barberry	**M**	**S**	2-3'	yellow	5-7.5 K	Spring	8
Ceanothus americanus	New Jersey tea' ceanothus	**M**	**S/PS**	2-3'	white	5-7.5 K	Summer	8
Lonicera tatarica	Tatarian honeysuckle	**M**	**S/PS**	4-6'	white/pink	5-10 K	May-Jun	8
Malus spp.	crabapple	**M**	**S**	10-15'	pink/white	5-9 K	Apr-May	8
Yucca filamentosa	Adam's needle	**M**	**S/PS**	2-3'	white	5-8 K	Jun	8

Scientific Name	Common Name	Approx. Water Needs	Sun/Shade Preference	Approx. Mature Height	Flower Color	Elevation in 1,000' Increments	Approx. Bloom Time	Low Flammability Rating
Turf grasses								
Bouteloua dactyloides	buffalograss	**L**	**S**	mow to 2"	n/a	5-6.5 K	n/a	9
Bouteloua gracilis	blue grama	**L**	**S**	mow to 2"	n/a	4.5-7.5 K	n/a	9
Festuca ovina	sheep fescue	**M**	**S**	mow to 2"	n/a	5-9 K	n/a	9
Lolium perenne	perennial ryegrass	**M**	**S**	mow to 2"	n/a	5-8 K	n/a	10
Poa compressa	Canada bluegrass	**M**	**S**	mow to 2"	n/a	5-8 K	n/a	9
Poa pratensis	Kentucky bluegrass	**M**	**S**	mow to 2"	n/a	5-9 K	n/a	10

Low-flammability plants with higher water needs								
Aconitum columbianum	Columbian monkshood	**M-H**	**S**	2'	blue/purple	5-10 K	Jun-Jul	7.5
Aconitum spp.	monkshood	**M-H**	**S**	2'	blue/purple	5-10 K	Jun-Jul	7.5
Aquilegia caerulea	Colorado blue columbine	**M-H**	**S/PS**	1-2'	blue-lav./ white	5-10 K	Jun-Jul	8
Aquilegia spp.	columbine	**M-H**	**S/PS**	1-2'	varies	5-10 K	Jun-Jul	8
Corylus cornuta	beaked hazelnut	**H**	**S/Sh**	5-6'	yellow-brown	5-7.5 K	inconspicuous	8
Hosta spp.	hosta	**M-H**	**PS**	2-3'	varies	varies	Summer-Fall	8
Iris missouriensis	Missouri or native iris	**M-H**	**S**	1-2'	violet blue	5-10 K	May	9.5

Blue Grama Grass © Larry Allain. USGS NWRC @ USDA-NRCS PLANTS Database

Geranium and Rocky Mountain Columbine (Photo by I. Shonle)

Wallflowers and Blue Mist Penstemons (Photo by I. Shonle)

COLORADO STATE UNIVERSITY EXTENSION

Colorado State University Extension
State Administration Office
Campus Delivery 4040
Fort Collins, CO 80523-4040

COLORADO STATE FOREST SERVICE
COLORADO STATE UNIVERSITY

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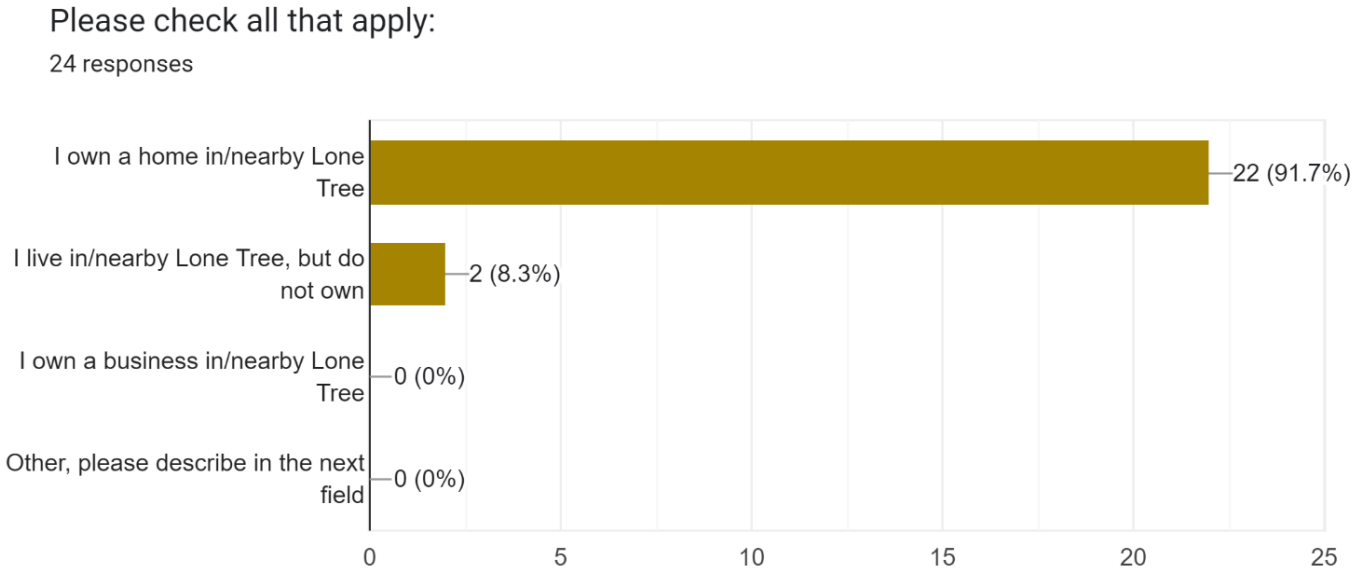
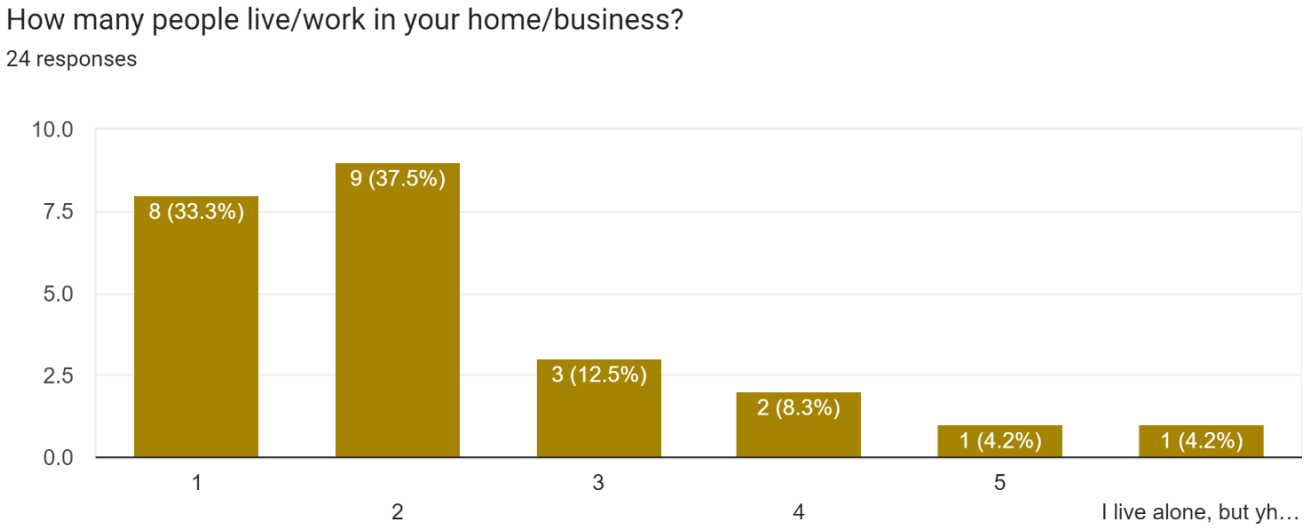
APPENDIX D: COMMUNITY SURVEY

Lone Tree CWPP Community Survey Responses
May – June 2024
24 Respondents



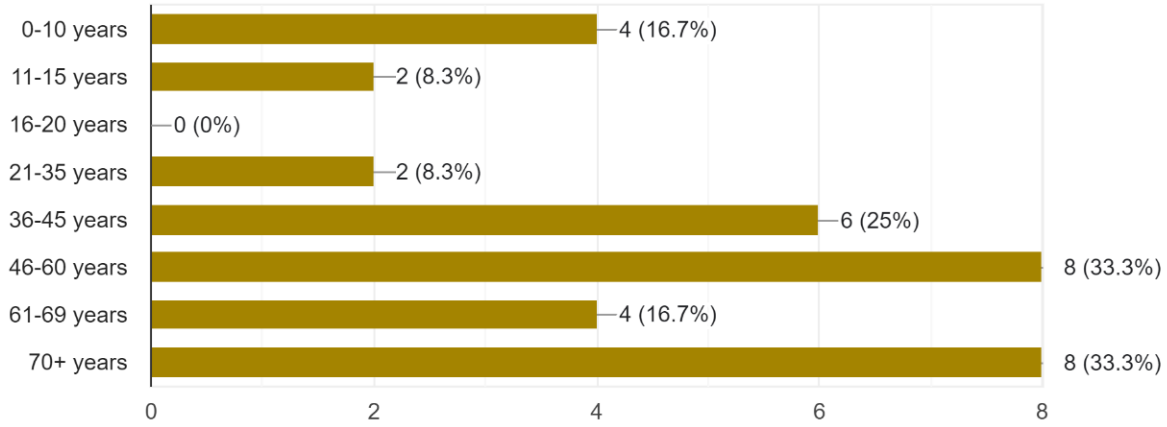
What is the name of your neighborhood/HOA/business development?

Heritage Hills	Masters Park	Ridgeview
Charter	Carriage Club	Heritage Hills
Camden Lincoln Station	Bluffmont Estates	Carriage Club HOA
Acres Green	Charter	Emmersyn at Lone Tree
Palomino Park	Lincoln Commons Rows	TerraRidge
Carriage Club	Masters Park	Lincoln Square Lofts
Fairways	Lincoln Square Lofts	RidgeGate
Terra Ridge	Masters Park	Montecito



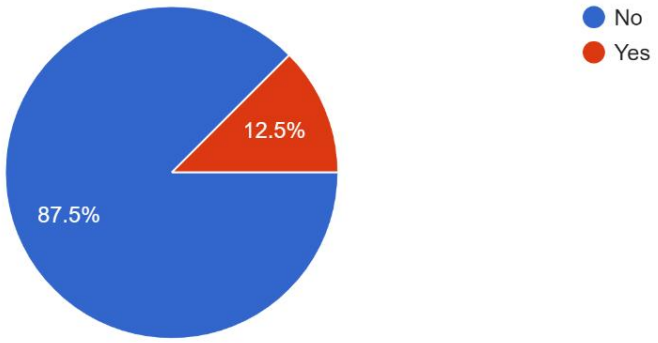
Please indicate the ages of all individuals who reside in/occupy your home/business. Check all that apply:

24 responses



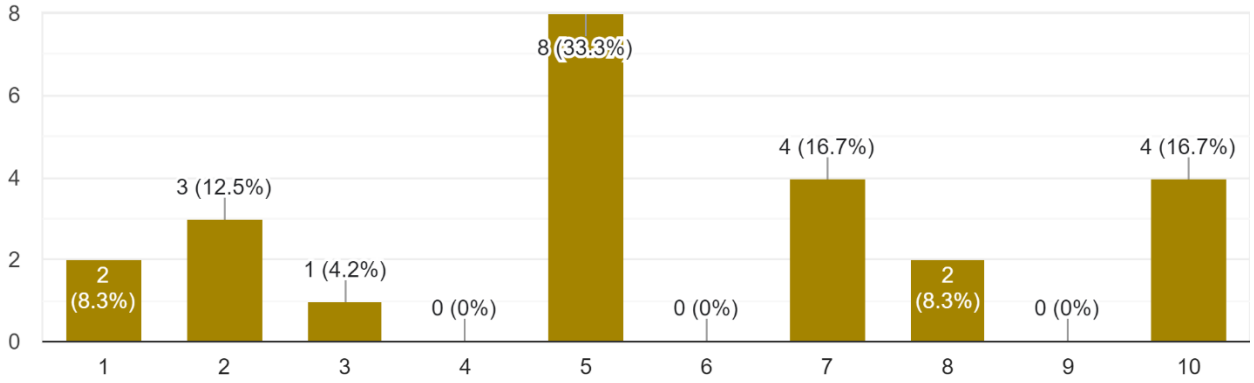
Are there any individuals with specific vulnerabilities in your home/business? (e.g., individuals with disabilities, individuals requiring oxygen, etc.).

24 responses



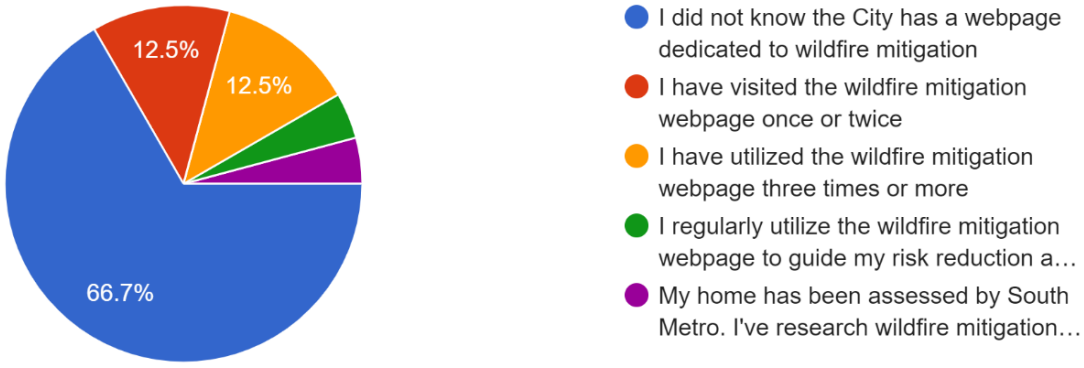
On a scale of 1 to 10, how would you rate your knowledge and awareness of wildfire risks specific to Lone Tree? (1 being the least knowledgeable, 10 being the most knowledgeable)

24 responses



How familiar are you with the information and resources posted on the City of Lone Tree's wildfire mitigation website? cityoflonetree.com/wildfire

24 responses



We welcome your feedback. Please use this field to provide any feedback related to the City's wildfire mitigation webpage and/or wildfire-related information delivered by the City. 6 responses

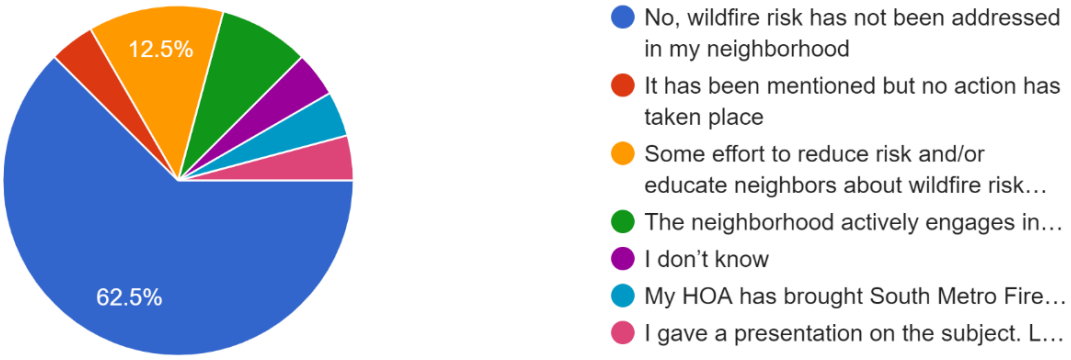
- I support efforts to mitigate wildfire risk, I am concerned that much mapping and alarmist communications, particularly from the state will frighten away more insurance companies. At an HOA meeting recently, I learned there are already two companies that do not write coverage in Carriage Club.
- Looks interesting might need more promotion
- HOA Condo insurance has become extremely expensive. If wildfire mitigation can help with reducing this cost, that will be very helpful.
- It looks fine to me. However, I skimmed it since I don't have much time.
- We appreciate this information and are conscientious about following fire mitigation measures.
- I feel the city's wildfire mitigation standard for new subdivisions also should apply to existing ones.

What other sources, if any, do you rely on for wildfire preparedness information? 13 responses

- None
- From the state and past experiences.
- State Burn Probability mapping.
- Insurance company, state of co, cal fire
- Broadcast tv
- Local news (9News), National Weather Service, state government agencies
- No others, but I have signed up for Code Red.
- We have a home in Summit County and follow their mitigation measures too.
- Weather report fire alerts
- South Metro Fire
- State of Colorado
- Wildfire programs from CSU, Utah, New Mexico, CalFIre, Washington State, Oregon, etc.

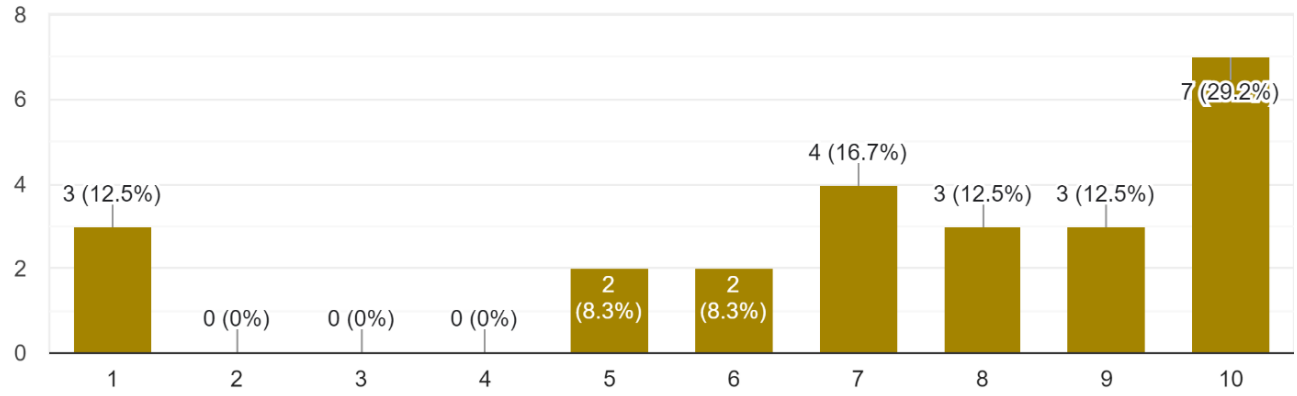
Has your HOA or neighborhood/development organization ever addressed the issue of wildfire risk?

24 responses



On a scale of 1 to 10 (1 being the least likely, 10 being the most likely), how likely are you to participate in neighborhood or community wildfire ...help with mitigation efforts in common areas, etc.

24 responses



How would you describe your understanding of wildfire risk in your property's area?

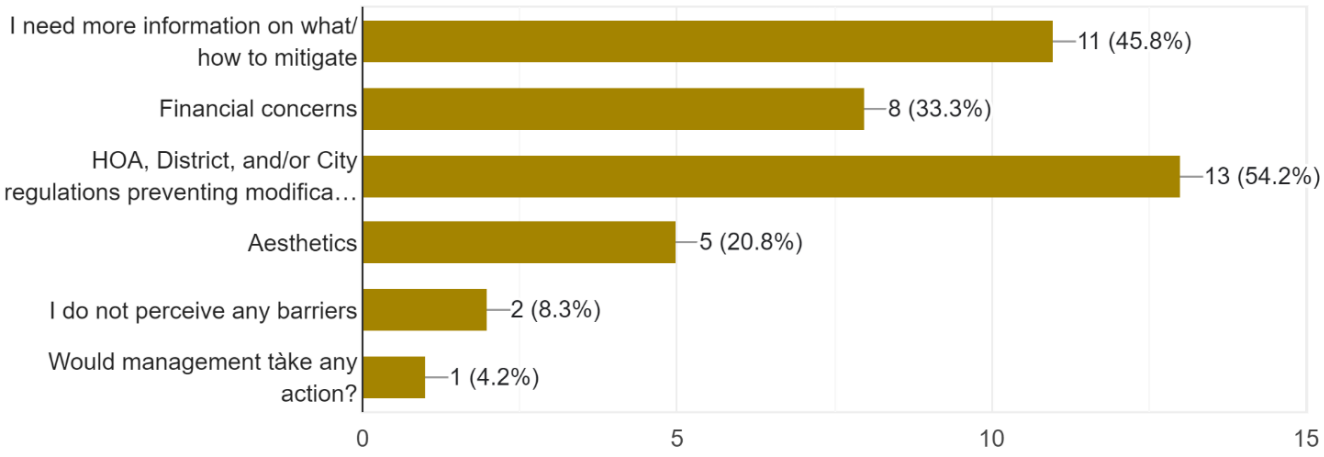
24 responses

How willing are you to treat and reduce hazardous vegetation on your own property?

24 responses

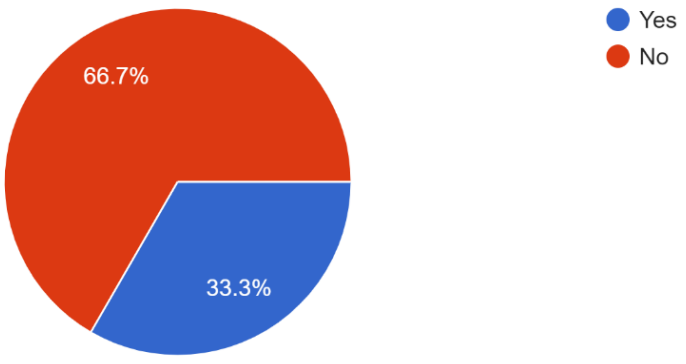
Do you perceive any of the following as barriers to mitigating wildfire risk on your property? Please select all that apply.

24 responses

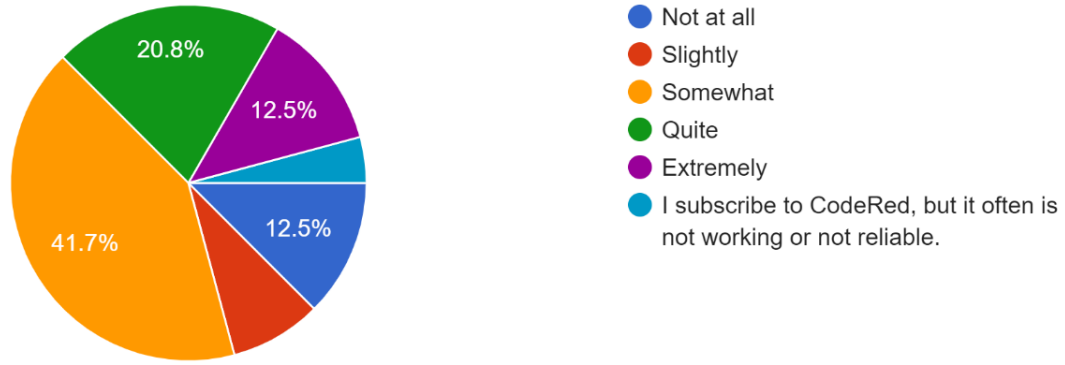


Do you have an emergency evacuation kit?

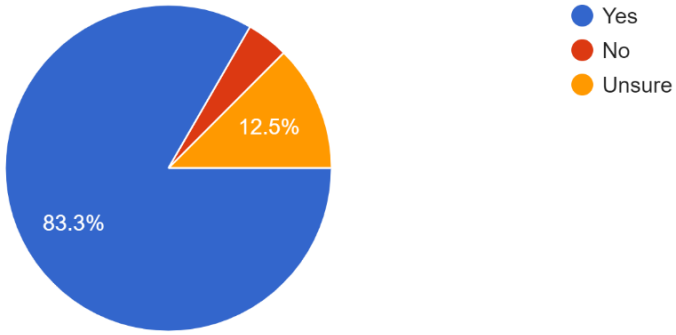
24 responses



How confident are you that you can easily receive timely information about a local wildfire?
24 responses



Are you registered for CodeRED, Douglas County's reverse 911 emergency notifications? (If not, consider registering: dcsheriff.net/codered)
24 responses



Please provide additional comments or questions related to wildfire preparedness in Lone Tree.
6 responses

- My main concern is the open space between HR and our neighborhood, in addition to the high tension power lines, people often set fireworks back there and that area gets very dry by mid summer. A fire in that area would very quickly spread into Terra Ridge.
- While I appreciate being surrounded by open space, the grasses that grow directly up to the property lines are of great concern. It would be great if these we mowed down regularly, instead of (it seems) once or twice a summer. Ideally, a 3"-5" rock border at the fence lines on the open space side of each community would be an effective buffer, especially since most homeowners have rock borders on their sides. Intermittent placement of fire hydrants in the open space would also be an effective way to quickly control a fire and protect lives and properties. Highlands Ranch has hydrants within their open spaces, so it's definitely doable. For our part, we are in the process of redesigning our landscaping to total xeriscape - aesthetically pleasing, of course 😋 - for maintenance, water conservation and wildfire mitigation reasons. Thank you for being proactive in this matter. Have a great day!
- None
- Hi, I am not on my HOA board, but I have concerns about Masters Park and would like to participate in wildfire mitigation efforts.
- I don't think those around me consider it a serious risk.
- How can I get Lone Tree to force the HOA to follow the wildfire guidelines regarding watering and mowing native grass in common areas? Could the city do an audit?

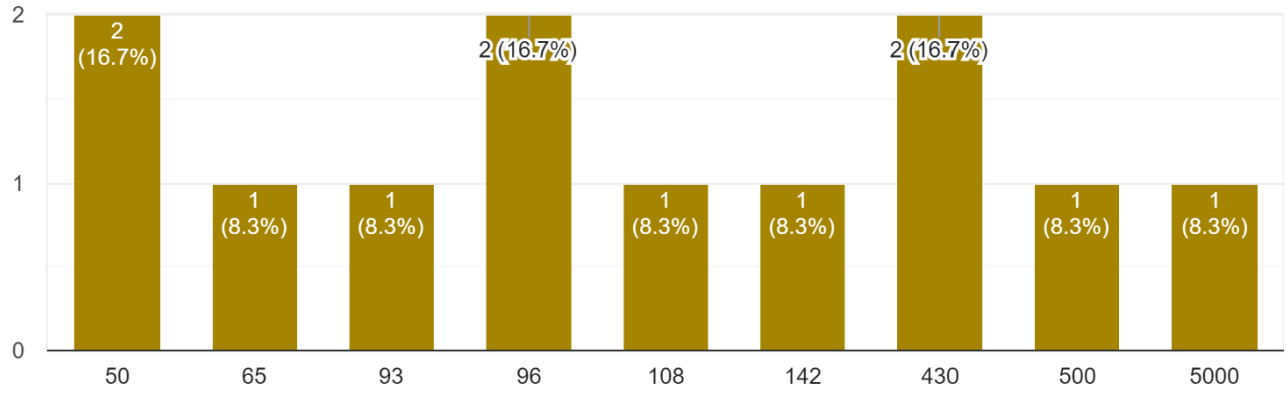
APPENDIX E: HOA SURVEY

Lone Tree CWPP HOA Survey Responses
May – June 2024
12 Respondents

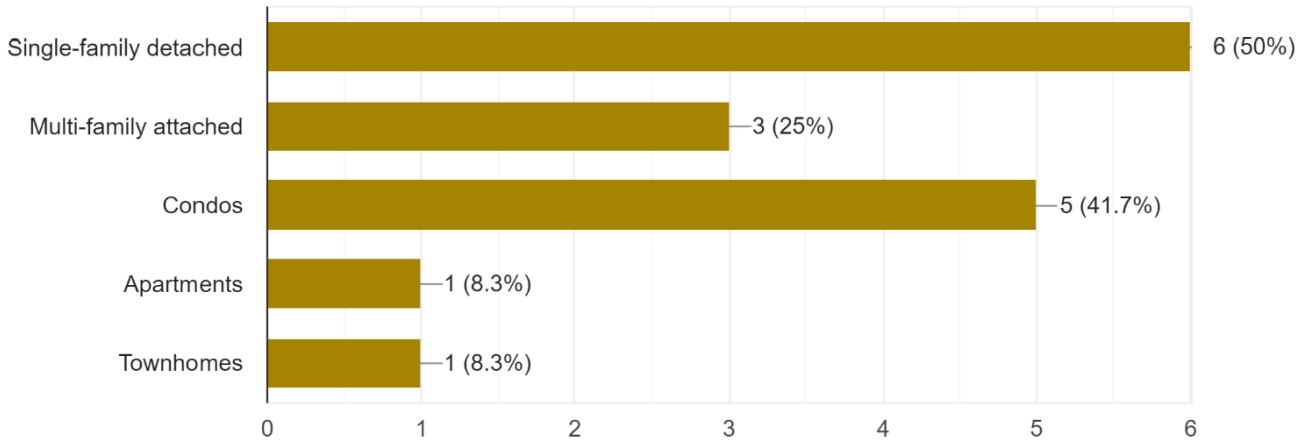
What is the name of your neighborhood/HOA/business development?

Ridgegate West Village Community Association
Montecito
Carriage Club
Bluffmont Estates HOA
Lincoln Park
Carriage Club HOA
Masters Park
Ridgegate Central
Masters Park
Club Terrace
The Retreat at Ridgegate
The Retreat at RidgeGate

How many households are in your HOA/development?
12 responses

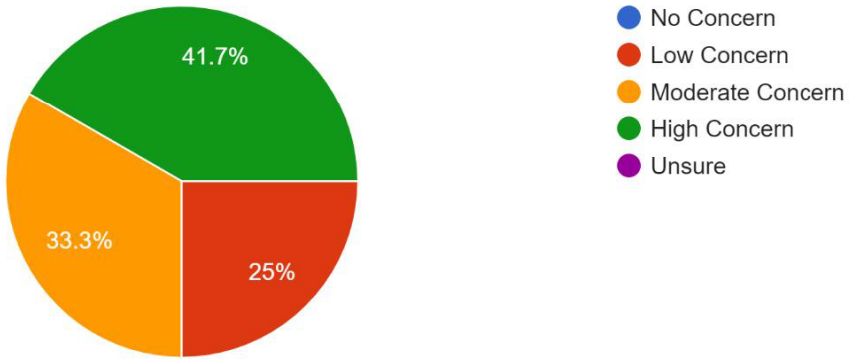


Please indicate the types of residential units within your HOA/development. Check all that apply:
12 responses



How would you rate your level of concern regarding the threat of wildfire to your HOA/development?

12 responses



How would you describe your understanding of wildfire risk in your neighborhood?

12 responses

Responses (above chart):

- I understand that wildfires occur, but I do not know the degree of risk in my neighborhood (4 responses)
- I understand the degree of wildfire risk in my home area, but I do not know what to do about it (3 responses)
- I understand the wildfire risk in my home area, and I understand what I can do to mitigate that risk (3 responses)
- Have some info for myarea, but need more specific info for mitigation in our neighborhood (1 response)
- The biggest risk for us is the area of the Belvedere Park that is not mowed all summer long. The grass gets very long and dry and would burn quickly if ignated. (1 response)

Has your HOA/development ever addressed the issue of wildfire risk?

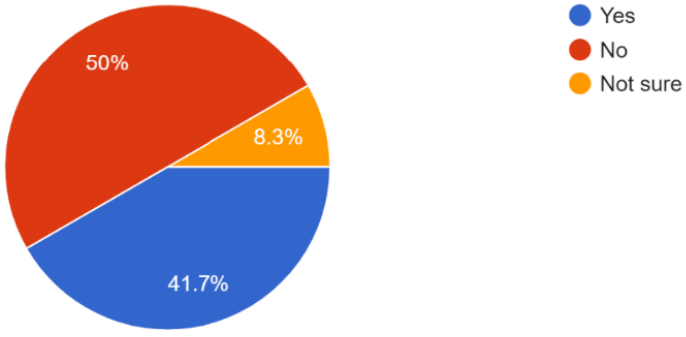
12 responses

Does your HOA/development currently manage community landscapes for the purpose of reducing hazardous fuels?

12 responses

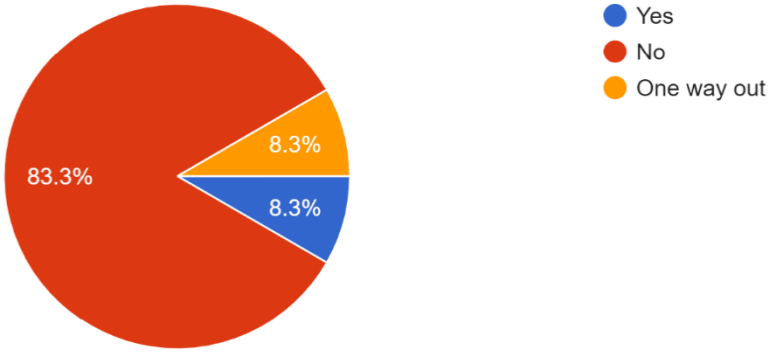
Has your HOA/development ever provided residents information on wildfire prevention and preparedness?

12 responses



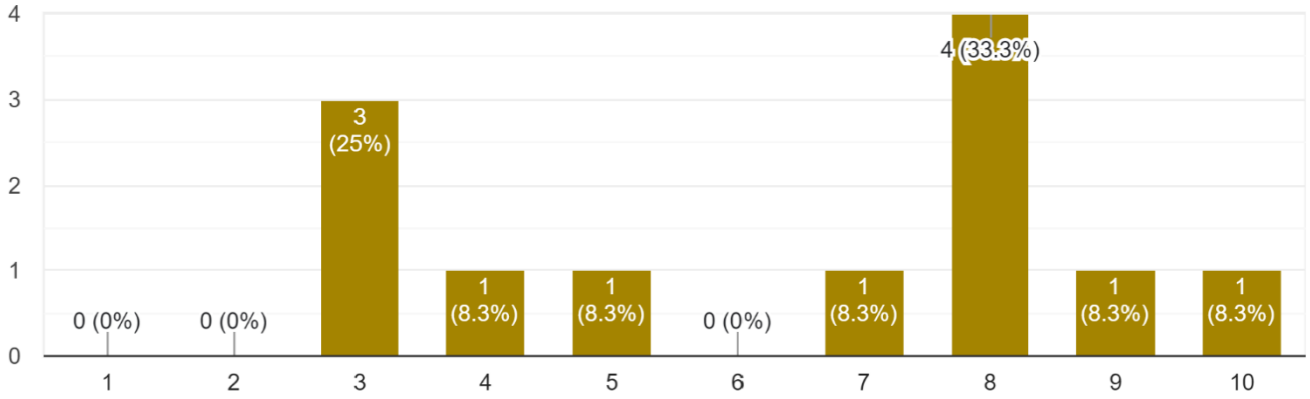
Does your HOA/development provide residents information on evacuation routes?

12 responses



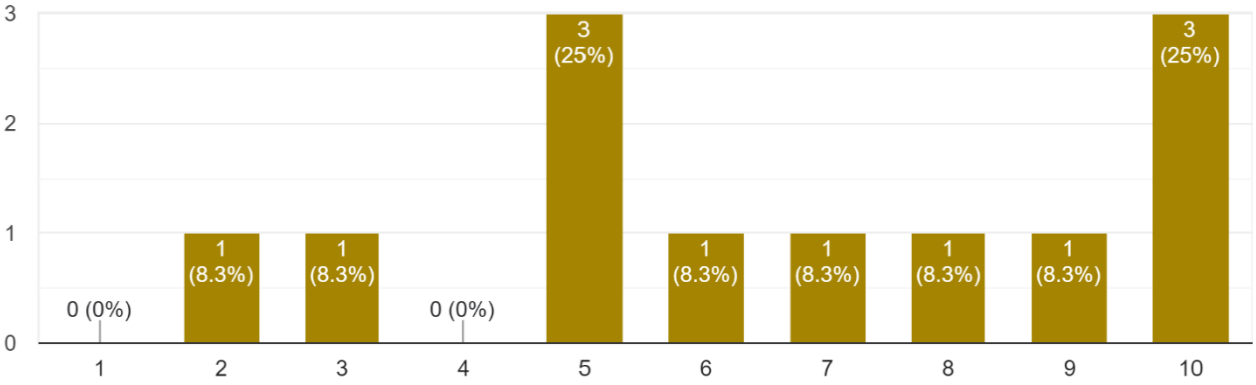
On a scale of 1 to 10 (1 being the least likely, 10 being the most likely), how likely is the HOA/development willing to support revising neighb...materials, low-flammability landscape plants, etc.

12 responses



On a scale of 1 to 10 (1 being the least likely, 10 being the most likely), how likely would your HOA/development support conducting annual neigh... homeowners of opportunities for improvement?

12 responses



How likely would the HOA/development be willing to treat and reduce hazardous vegetation on HOA property/common areas?

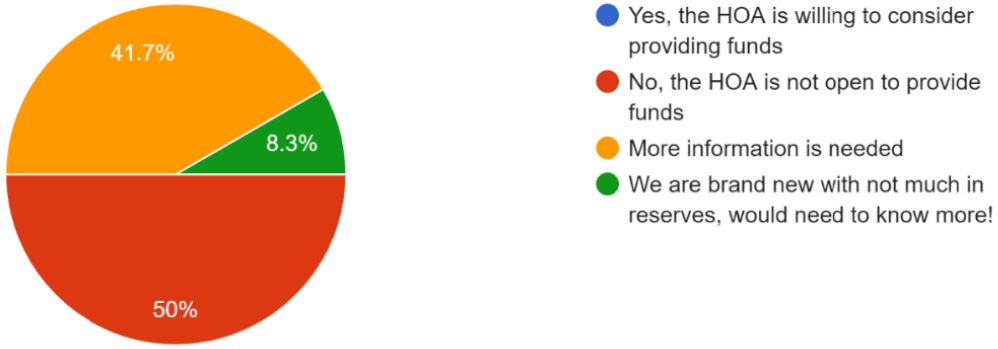
12 responses

Responses (above chart):

- The HOA is likely willing to reduce hazardous vegetation on HOA property/common areas as much as possible (6 responses)
- The HOA needs to know more about how hazardous vegetation is defined before it can answer this question (2 responses)
- The HOA is likely willing to modify, but not remove hazardous vegetation on HOA property/common areas (1 response)
- Only provide communication services (1 response)
- The HOA is willing, but areas of concern to our neighborhood are controlled by Rampart Range (cottonwood creek) and south suburban (cabelas trail) as well as possible other entities. (1 response)
- We already keep the vegetation neat and trimmed as much as possible. (1 response)

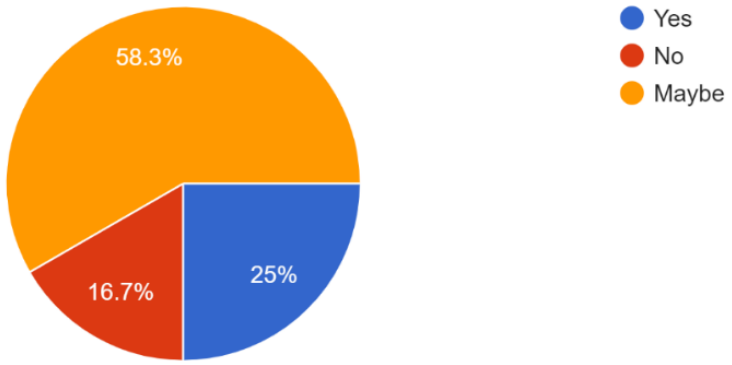
Would the HOA/development consider providing monetary support to wildfire mitigation measures, specifically for your neighborhood? E.g. provide f...g/goats along open space areas adjacent to homes

12 responses



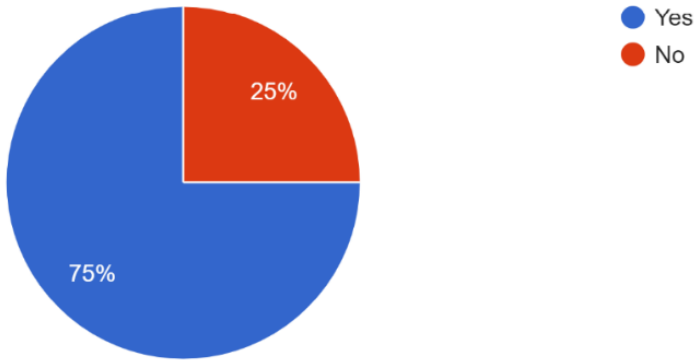
Would your HOA/development be open to consider joining or forming a neighborhood wildfire preparedness group to collaborate on mitigation efforts?

12 responses



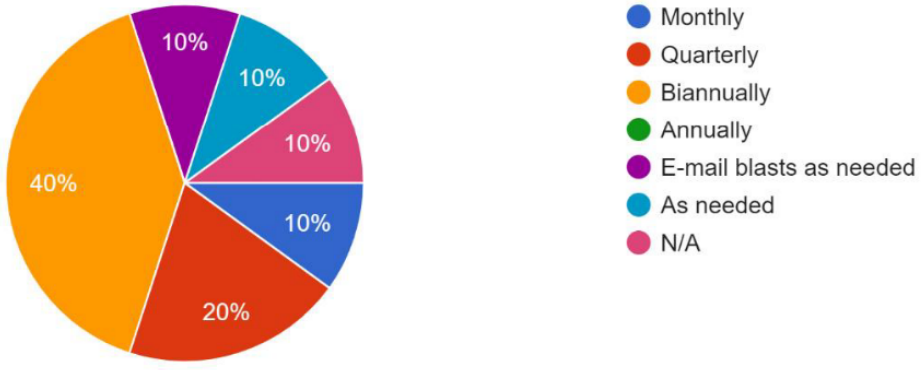
Does your HOA/development have a newsletter it sends to residents?

12 responses



If yes, how frequently is the newsletter sent out?

10 responses

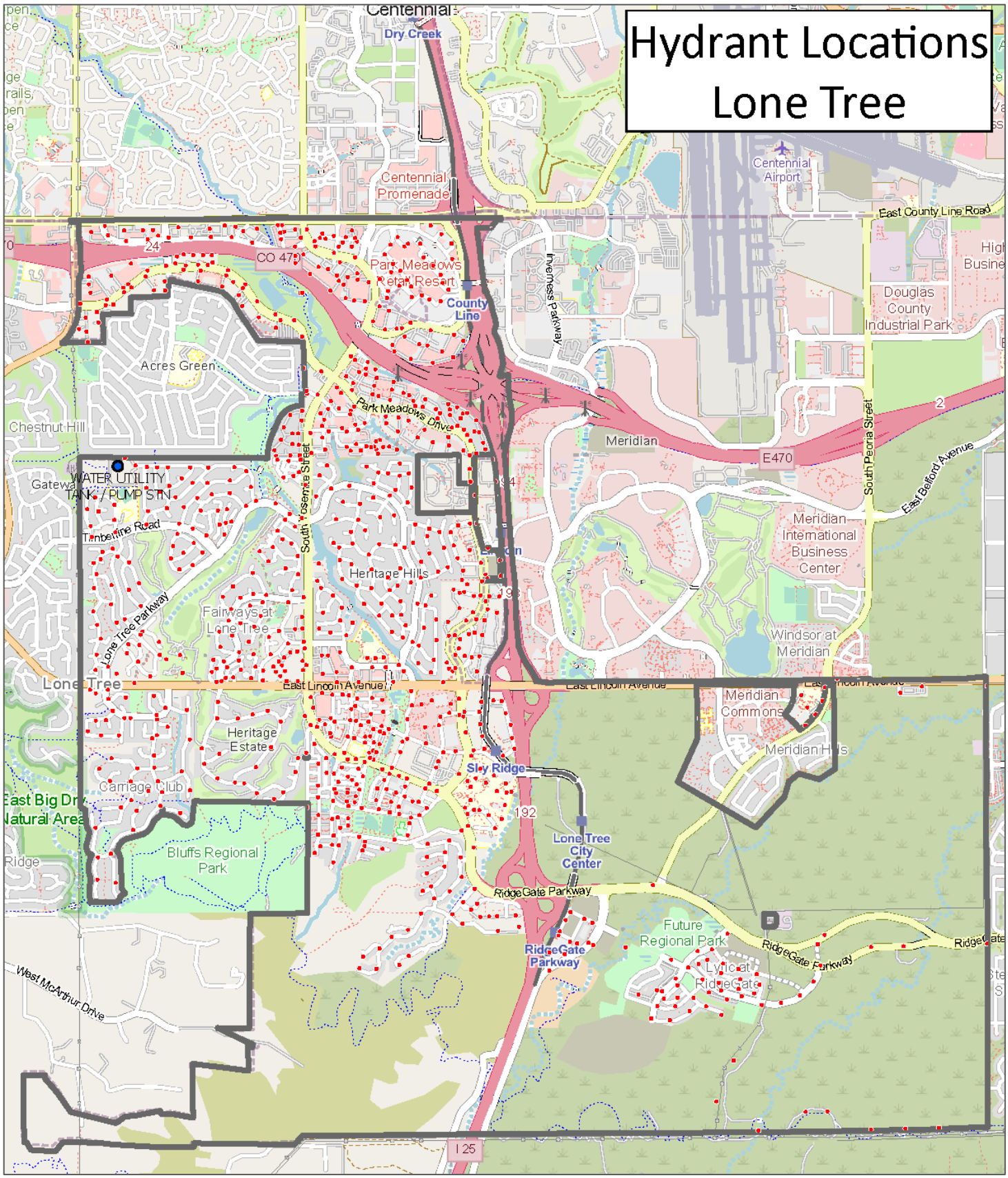


In your opinion, how can the City best support HOAs to manage wildfire risk? (11 responses)

- Make them aware of any risks that aren't currently managed
- Education. The City and Ramport Range need to manage their property's which surround us.
- With only one main way to get out of Carriage Club, address this concern.
- Coordinating the commmitte/mitigation efforts as mentioned above, asking city council to consider ordinances prohibiting some of the most risky items that may be allowed due to rules and regulations (BBQ equipment, tree species, mulches). Continue to keep existing city website resources updated (thank you!)
- If you would keep the wild grasses mowed down on a weekly basis that would be great. The wild grasses in Belvedere get very tall in the summer months and dry and become a high fire hazard. They should be mowed down weekly to insure a lower fire hazard.
- Having local fire prevention experts evaluate individual as well as HOA risks on our properties and helping us develop an action plan to implement in conjunction with our planning and maintaining of our open spaces.
- Provide advice when solicited
- Education, funding
- Information
- Ensuring areas of risk are addressed
- We have a few entities with our neighborhood and could use assistance in making sure they are all doing what they are supposed to be doing for wildfire mitigation. We have a number of dead branches & shrubs in the Rampart Range space that need to be mitigated.

APPENDIX F: FIRE HYDRANT LOCATIONS

Source: South Metro Fire Rescue



APPENDIX G: CWPP CORE TEAM MEETING AGENDAS

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Lone Tree CWPP Core Team Meeting

December 6, 2022

Agenda

1. **Attendance –** Members:

Spencer Weston, CSFS	Roshana Floyd, City of Lone Tree
Jackie Erwin, SMFR	Pearce Miller, City of Lone Tree
Jill Welle, Douglas County	Arielle Hodgson, City of Lone Tree

2. **Draft CWPP Goals**
    A. Serve as a valuable and motivational resource to residents and businesses
    B. Mitigate wildfire risk to property and infrastructure
    C. Mitigate wildfire risk to parks, open space, and natural areas
    D. Educate the public through diverse collaboration and outreach
    E. Improve existing mitigation efforts

3. **Core Team Members**
    A. South Suburban Parks & Recreation District, Eileen Matheson
    B. Douglas County Parks & Open Space

4. **Public Engagement**
    A. Around 6 community educational workshops/presentations with SMFR throughout 2023
    B. Plan for specific HOA/neighborhood workshops as we work through assessments

5. **Identified High-Risk Areas**
    A.

6. **Assessments**
    A. Consultant, funding
    B. Timing

Lone Tree CWPP Core Team Meeting

January 24, 2024

Agenda

1. **Attendance –** Members:

Spencer Weston, CSFS	Roshana Floyd, City of Lone Tree
Jackie Erwin, SMFR	Pearce Miller, City of Lone Tree
Jill Welle, Douglas County	Arielle Hodgson, City of Lone Tree

1. **Core Team Members Update**
   A. South Suburban Parks & Recreation District, Eileen Matheson
   B. Douglas County Parks & Open Space

2. **Draft RFP Review**
   A. GIS Need
   B. Existing Maps/Data
   C. Updates on cost estimates from consultants

3. **Public Engagement**
   A. Community Survey – Douglas County questions

4. **Other Updates**

Lone Tree CWPP Core Team Meeting

March 27, 2024

9220 Kimmer Dr. Ste. 100 Lone Tree, CO 80124

Agenda

1. **Attendance –** Members:

   Spencer Weston, CSFS
   Chelsea Molitor, SMFR
   Jill Welle, Douglas County
   Cullen O'Brien, SSPRD
   Dylan Williams, Douglas County
   Morgan Morehart, Douglas County
   Denise Denslow, Rampart Range
   Sarah Harrison, City of Lone Tree
   Damian Wetzel, City of Lone Tree
   Steve Fletcher, City of Lone Tree
   Roshana Floyd, City of Lone Tree
   Bobby Weidmann, City of Lone Tree
   Arielle Hodgson, City of Lone Tree

2. **Welcome & Introductions**

3. **CWPP Draft Update**

4. **GIS Update**

5. **Community Survey Draft**
   A. Review, draft on page 2
   B. Means of sending/collecting
   C. Second survey for HOAs ?

6. **Public Engagement**
   A. May Wildfire Awareness Month
   B. Timing on community workshops, engagement

DRAFT – City of Lone Tree Wildfire Community Survey, Spring 2024

City Scale

1. On a scale of 1 to 10, how would you rate your knowledge and awareness of wildfire risks specific to Lone Tree? (1 being the least knowledgeable, 10 being the most knowledgeable)
   1 2 3 4 5 6 7 8 9 10
2. How familiar are you with the information and resources posted on the City of Lone Tree's wildfire mitigation website?
   a. I did not know the City has a webpage dedicated to wildfire mitigation
   b. I have visited the wildfire mitigation webpage once or twice
   c. I have utilized the wildfire mitigation webpage three times or more
   d. I regularly utilized the wildfire mitigation webpage to guide my risk reduction and improve my wildfire preparedness
3. What other sources do you rely on for wildfire preparedness information?
   _____
   _____
   _____
4. In your opinion, what are the most critical aspects of wildfire preparedness that Lone Tree should focus on improving?
   _____
   _____
   _____

Neighborhood Scale

5. Has your neighborhood HOA or other neighborhood organization ever addressed the issue of wildfire risk?
   a. No, wildfire risk has not been addressed in my neighborhood
   b. It has been mentioned but no action has taken place
   c. Some effort to reduce risk and/or educate neighbors about wildfire risk has been made
   d. The neighborhood actively engages in wildfire mitigation (mowing, trimming, and removing hazardous vegetation and/or promoting fire resistant building materials)
   e. I don't know
6. Have you ever participated in any wildfire mitigation efforts or initiatives in your neighborhood or community? If so, could you provide examples? YES NO
   _____
   _____
   _____
7. On a scale from 1 to 10 (1 being the least likely, 10 being the most likely), how likely are you to participate in neighborhood or community wildfire mitigation efforts? E.g. helping trim/mow vegetation in common areas, financial support, etc.
   1 2 3 4 5 6 7 8 9 10

Individual Scale

8. How would you describe your understanding of wildfire risk in your home area?
   a. I know very little about wildfire risk
   b. I understand that wildfires occur, but I do not know the degree of risk in my home area
   c. I understand the degree of wildfire risk in my home area, but do not know what to do about it
   d. I understand the wildfire risk in my home area, and I understand what I can do to mitigate that risk

9. How willing are you to treat and reduce hazardous vegetation on your own property?
    a. I am not willing to modify the landscaping on my property
    b. I am willing to modify, but not remove, hazardous vegetation on my property
    c. I am willing to reduce hazardous vegetation on my property as much as possible
    d. I need to know more about how hazardous vegetation is defined before I can answer this question
10. On a scale from 1 to 10, how confident are you in your ability to effectively implement wildfire mitigation measures on your own property? (1 being the least confident, 10 being the most confident)

    1 2 3 4 5 6 7 8 9 10
11. Do you have an emergency evacuation kit? Yes – No
12. How confident are you that you can easily receive information about a local wildfire?

    Not at all – Slightly – Somewhat – Quite – Extremely
13. Are you registered for CodeRED, Douglas County's reverse 911 emergency notifications? If no, why not? Yes – No

Demographic Information

14. Address/neighborhood
15. Age
16. Household makeup – marital & family status
17. Any specific vulnerabilities? (e.g., elderly residents, individuals with disabilities)

Other Maybe Questions

18. How supportive are you of projects to treat and reduce hazardous vegetation in your community?
    a. I do not support community efforts to treat and reduce hazardous vegetation
    b. I am somewhat supportive of community efforts to treat and reduce hazardous vegetation
    c. I strongly support community efforts to treat and reduce hazardous vegetation
    d. I need to know about how hazardous vegetation is treated or reduced before I can answer this question
19. What role do you think city government should play in wildfire mitigation efforts?

Lone Tree CWPP Core Team Meeting

October 29, 2024

9220 Kimmer Dr. Ste. 100 Lone Tree, CO 80124

Agenda

1. **Attendance –** Members:

   Spencer Weston, CSFS
   Chelsea Molitor, SMFR
   Dan Stutz, SMFR
   Jill Welle, Douglas County
   Cullen O'Brien, SSPRD
   Dylan Williams, Douglas County
   Morgan Morehart, Douglas County
   Denise Denslow, Rampart Range
   Roshana Floyd, City of Lone Tree
   Sam Waggener, City of Lone Tree
   Bobby Weidmann, City of Lone Tree
   Ian Corder, City of Lone Tree
   Arielle Cronin, City of Lone Tree

2. **CWPP Draft Update**
   A. Address specific recommendations/collaboration for higher risk neighborhoods in CWPP, or communitywide recommendations in CWPP and work with HOAs separately?
   B. Surface Fuels and Fuel Models
   C. City/public land: ideal strategies for land management in CWPP; formal agreements outside of CWPP
   D. Additional boots-on-the-ground assessments
   E. Xcel Energy

3. **Survey Results**
   A. Community Survey – 24 respondents
   B. HOA Survey – 12 respondents
   C. Seeking additional responses at LT Elevated Comp Plan event

4. **Community Workshops**
   A. 1-2 workshops as educational opportunities
      i. Possibly target certain higher-risk neighborhoods
   B. Tentatively early 2025, before/around CWPP finalized
   C. Partner on workshops

5. **Montecito Community**
   A. Requesting mow City land adjacent to homes, but steep grade; SSPRD mowing crews unable to access
   B. High-Moderate WUI risk area per CO-WRA
   C. Liability?
   D. How to address? Possible partnership opportunities?

6. **Next meeting**

Lone Tree CWPP Core Team Meeting

December 10, 2024

9220 Kimmer Dr. Ste. 100 Lone Tree, CO 80124

Agenda

1. **Attendance –** Members:

   Spencer Weston, CSFS
   Chelsea Molitor, SMFR
   Dan Stutz, SMFR
   Jill Welle, Douglas County
   Cullen O'Brien, SSPRD
   Dylan Williams, Douglas County
   Morgan Morehart, Douglas County
   Denise Denslow, Rampart Range
   Roshana Floyd, City of Lone Tree
   Sam Waggener, City of Lone Tree
   Bobby Weidmann, City of Lone Tree
   Ian Corder, City of Lone Tree
   Arielle Cronin, City of Lone Tree

2. **Additional Information for CWPP**
   A. Rampart Range Open Space Wildfire Management/Maintenance Practices
   B. Structural Vulnerability vs Building Damage Potential
   C. Appendix
      i. CSFS Low Flammability Landscape Plants Guide/Plant list

3. **Community Workshops**
   A. 1-2 workshops with higher-risk neighborhoods *before* finalizing CWPP to shape the recommendations/action items?
   B. Partner on workshops
      i. Ember Alliance

4. **Brainstorm Recommendations (page 2)**

5. **Next meeting**

DRAFT RECOMMENDATIONS

Fuels Reduction

- Continue collaboration with higher-risk neighborhoods in the WUI to develop priorities for projects
- Explore ideas like goats, Mile High Youth Corps, rocks, etc. with SSPRD, Rampart Range, and HOAs for higher-risk areas on City land, inaccessible to mowers
- Continue to work with HOAs on neighborhood-wide treatments and risk reduction

Education and Outreach

- Expand outreach efforts that educate residents on the importance of the HIZ and how to take action
- Develop annual mailer campaign, highlighting preparedness & wildfire risk reduction topics
- Continue efforts with the Communications team to expand wildfire protection communications through social media, Timberlines e-newsletter, and City events
- Continue partnership with SMFR to support neighborhood assessment days; explore expansion opportunities/additional days
- Continue efforts for increased CodeRed signups
- Partner with SMFR and Douglas County for public education course/workshop on defensible space
- Partner with SSPRD and Rampart Range on homeowners' responsibility between their property and mow line
- Update City's wildfire mitigation and preparedness webpages, to provide actionable information, relevant to the Lone Tree community

Land Use Planning

- Work with Community Development/Planning Commission/Council to integrate wildfire protection measures into Code
- Seek requirement of 1/8" wire mesh minimums for screen vents for new development
- Support Community Development in maintaining or enhancing wildfire risk assessment and mitigation plan for new construction

Continue to Identify and Evaluate Wildfire Hazards

- Develop CWPP Phase II, to include new risk after development of east of I-25

- Work with more vulnerable community institutions, such as HCA HealthOne at Sky Ridge and MorningStar, to create risk reduction and evacuation plans
- Work with water and utilities providers to identify and mitigate risk to infrastructure and services in Lone Tree

Expand Preparedness and Partnerships

- Develop citywide evacuation plan
- Expand partnership with other adjacent jurisdictions, such as Arapahoe County and Town of Parker, to build relationships for emergency reliance

Lone Tree CWPP Core Team Meeting

February 20, 2025

9220 Kimmer Dr. Ste. 100 Lone Tree, CO 80124

Agenda

1. **Attendance –** Members:

   Spencer Weston, CSFS
   Chelsea Molitor, SMFR
   Dan Stutz, SMFR
   Jill Welle, Douglas County
   Cullen O'Brien, SSPRD
   Dylan Williams, Douglas County
   Morgan Morehart, Douglas County
   Denise Denslow, Rampart Range
   Roshana Floyd, City of Lone Tree
   Sam Waggener, City of Lone Tree
   Bobby Weidmann, City of Lone Tree
   Ian Corder, City of Lone Tree
   Arielle Cronin, City of Lone Tree

2. **CWPP Draft**
   A. Review Draft Plan feedback
   B. Review Implementation Activities & Responsibilities
   C. Additional feedback

3. **Finalizing Plan Process**
   A. Review signature list

4. **Community Workshops**
   A. 1-2 workshops targeted at higher-risk neighborhoods following plan adoption
   B. Partner on workshops
      i. Ember Alliance
      ii. Douglas County + SMFR?

5. **Other**