Grassland Management in Boulder County

Grassland management after the Marshall Fire: collaboration for resilience

The Marshall Fire started in the grasslands and was the most destructive fire in Colorado history in terms of homes lost and the cost of damages. This powerful reminder of the role of fire in grassland ecosystems has led local resource managers and researchers to prioritize collaborative efforts to research and implement best practices. Their goal is to decrease wildfire risk and promote ecosystem function and resiliency.

The Watershed Center and Boulder County co-facilitate the Boulder County Fireshed Grasslands Working Group, which brings together practitioners, researchers, and fire response agencies to collaboratively conduct outreach and share lessons learned from grasslands management and fire mitigation.

For more information on grassland management in Boulder County, check out our StoryMap with the QR code to the right or at www.tinyurl.com/grasslandsmanagement

Wildfire and grasslands

Grasslands depend on wildfire to remain healthy, resilient, and to prevent fuel buildup. Historically, grassland fires were likely widespread and occurred as frequently as every 2 years, or as infrequently as every 20 years. Predominantly driven by lightning strikes, regular grassland fires prevent fuel buildup by burning up dry plants that accumulate over time. This also prevents woody shrub and tree encroachment, helps with nutrient cycling, and encourages native plant growth. Today, many of our grasslands are “fire-starved” due to wildfire suppression, leading to more surface fuel and an increase in woody shrubs and trees. Together, these conditions can cause fires to be more severe than they may have been historically.

Actions you can take

The most important measure that you can take as a homeowner is to conduct mitigation within your home ignition zone, which includes:

- constructing your home with nonflammable material
- clearing flammable vegetation and debris away from your home and nearby structures like sheds

Illustration: Bonnie Palmatory, Colorado State University

Prepare for wildfire and create defensible space around your home using these home ignition zone checklists:

www.tinyurl.com/HIZGuide

Connect with Wildfire Partners - Boulder County’s wildfire mitigation program which educates, motivates, and supports Boulder County residents in preparing for future wildfires.

www.wildfirepartners.org

How are grasslands managed?

Mowing

Mowing is used to reduce grassland vegetation and lower flammability. Although it has some drawbacks, it can be used strategically to make buffers between wild and urban areas. This creates a break in surface fuels to help protect homes in the event of a wildfire. While mowing is great at creating buffers, it is difficult to implement on a large scale. Additionally, repeated mowing over time can dry out soils and shift grasslands from native fire-resilient plants to non-native plants that are not adapted to fire.

Grazing

Livestock grazing is used to decrease the buildup of dead grass and can be used strategically to decrease invasive plants so they don't overpower native plants. Grazing can also encourage plants to remain low to the ground, which can lower fire severity. Livestock must be rotated to avoid overgrazing in a single area, but repeated grazing is important to reduce fire risk. Additionally, grazing can be used to create a buffer between communities and open spaces to reduce fuel accumulation at the urban-wildland interface.

Prescribed fire

Boulder County grasslands are adapted to frequent, low-severity fires that help keep these ecosystems healthy. Prescribed fires support native plants and limit trees and shrubs from moving into grasslands. This benefits native pollinators, small mammals, and birds. Prescribed fire also reduces the amount of fuel for 1-2 years, but can take multiple burns to promote grassland health. Additionally, the cost of prescribed fire is typically lower than the cost of wildfire suppression.

Sign up for notifications about prescribed burns happening in Boulder County at https://tinyurl.com/bocorxfire

Ditch management

Boulder County's ditch mitigation program focuses on reducing wildfire risk along irrigation ditches and associated corridors, which has the potential for fire spread across the landscape. By strategically balancing the management of vegetation around ditches through targeted clearing and removal of excess debris, the program aims to lower fuel continuity while maintaining the ecological and operational function of these water systems for both wildlife and farmers alike. While ditch mitigation requires ongoing coordination with landowners and ditch companies and regular maintenance to remain effective, it is a cost-efficient, highly targeted approach that utilizes a variety of methods to protect Boulder County's communities and open spaces

Partners

The Boulder County Fireshed Grasslands Working Group includes representatives from University of Colorado Boulder, Town of Superior, City of Louisville, Louisville Fire, City of Boulder Open Space and Mountain Parks, The Ember Alliance, Colorado State Forest Service, Lafayette Fire, City of Lafayette, Longmont Fire, City of Longmont, Boulder County Parks and Open Space, Boulder County Community Planning and Permitting, Boulder County Wildfire Partners, The Watershed Center, USDA Forest Service, Town of Erie, Boulder Watershed Collective, Fire Adapted Colorado, and St. Vrain and Left Hand Water Conservancy District.