

12. City of Lakewood Wildfire Preparedness and Open Space Fire Mitigation - This [website provides information on Wildfire Preparedness from the City of Lakewood, including Resources and Information from the City of Lakewood, Resources and Information from West Metro Fire Rescue, and the City's Open Space Fire Mitigation Plan:](#)

[Wildfire Preparedness - City of Lakewood](#)

[Microsoft Word - City of Lakewood Open Space Fire Mitigation Plan \[49\].docx.](#)

City of Lakewood

Open Space Fire Mitigation Plan

Recent wildfires in Colorado have caused concern for many Lakewood residents. The 2022 Marshal Fire, the most destructive fire in Colorado history, demonstrated clearly that wildfire risk should be a concern for Front Range residents. Previous fires in Lakewood, including fires on William Frederick Hayden Park in 2008 and 2017 and Bear Creek in 2021, show that living next to open space can bring additional risk.

In 2021, West Metro Fire Rescue released the Community Wildfire Protection Plan Update (CWPP). This plan identifies hazard areas in the district, priority areas for hazardous fuel reduction treatments, and measures to reduce the ignitability of structures throughout the study area. The plan also includes Hazard Ratings for multiple communities that border open space properties managed by Jefferson County, Willow Springs, Ken Caryl and the City of Lakewood. Within Lakewood, the areas referred to as Green Mountain and Green Mountain Ravines received a High Hazard Rating, the second highest possible ranking.

Recognizing the potential risks in the Lakewood Wildland Urban Interface (WUI), Lakewood staff have partnered with West Metro Fire to evaluate wildland fire risk and fuels along open space boundaries that abut to private property, and to develop reasonable strategies to mitigate fire risk while preserving open space values. This plan provides a guideline for this assessment and initial work activities.

Scope of Plan

Lakewood Parks manages approximately 6,000 acres of park land as open space. These lands have been set aside to provide preservation and restoration of wildlife and natural resource values and high-quality outdoor recreation. They are managed under the Lakewood Natural Areas Plan with a focus on restoring quality short grass prairie, shrub, riparian and wetland communities through reclamation, invasive species management and wildlife management. As beautiful natural areas that are immediately adjacent to dense urban areas, these parks also serve hundreds of thousands of visitors annually for passive recreation including hiking, mountain biking, running and wildlife observation, and provide multiple ecological services to the community including pollinator habitat, flood control, water quality improvement and mental health balance. Open space lands also provide community values including improving property values and bringing eco-tourism dollars into the area. To preserve these values, any fire mitigation plan will need to carefully balance mitigation activities with preservation of resource and wildlife values. Fuels reduction, such as mowing and brush removal, can alter the native landscape, degrade habitat values and increase invasive weed infestation.

This plan will focus on the following properties: William Frederick Hayden Park and the parks collectively referred to as the Ravines Open Spaces.

- Beech Park Open Space
- Forsberg/Iron Springs
- Coyote Gulch
- Loveland Trail
- Ravines and Lower Ravines Open Space

- Tamarisk Open Space
- Hutchinson Park
- Heritage Hill Open Space
- Ute Trail Open Space

These specific areas were chosen as the starting place for this plan based on history of wildland fires in the past and immediate risks these fires have posed to neighboring property owners. Park staff, with assistance from West Metro Fire Rescue, have walked and mapped the boundaries of these parks, and determined initial steps that will be taken for mitigation. Detailed mitigation efforts for each park are provided later in this document. Generally, park staff will focus efforts on the following:

- Coordinated education program with West Metro Fire Rescue to park neighbors and surrounding communities.
- Fuels treatments within a distance of 20' from private property lines where feasible.
- Ongoing assessment of fuels beyond the 20' buffer to determine future potential fuel reduction treatments.
- Determining future expansion of this program to other open space properties in Lakewood.
- Exploring City funding, partnerships, volunteer opportunities and grant funding possibilities to ensure success and longevity of this plan.

Neighbor Responsibilities

Open space neighbors, and residents of surrounding communities, need to be aware that wildfire could impact their property. West Metro Fire Rescue has completed a comprehensive study of their district and has several resources available on their website at <https://www.westmetrofire.org/978/Wildfire-Safety>. These resources include the referenced CWPP, an interactive fire danger map, and a Firewise Toolkit with steps that can be taken to help protect homeowner property. Residents need to recognize that actions taken on their own property will be vital to the success of any fire mitigation project. Fuels treatment on City open space, on its own, will not be enough to protect private property if homeowners do not also take action to assess and mitigate their own land and structures. Additional resources for homeowners can be found through the Colorado State Forest Service at <https://csfs.colostate.edu/>.

In multiple areas of City open space, neighbors have encroached onto City land. These encroachments include landscape improvements, small gardens, fences, horseshoe pits, drainage features and other structures. Per City Municipal Code, encroachments onto City property are illegal and must be removed by the property owner. For the purpose of this plan, encroachments can have several impacts:

- 1) Preventing City equipment from accessing, specifically mowers.
- 2) Increasing potential fire danger to private property (dense vegetation, wooden structures).
- 3) Yard waste dumping on City property (limbs, leaves, grass). This can significantly increase fire danger as fire can burn for long periods in heavy fuel areas.

As City staff encounter encroachments in these 3 categories, they will work with property owners to address the situation. This can include cooperative efforts to thin or remove vegetation, or it may include enforcement action by Lakewood park rangers or police if necessary.

Allowances on City Open Space

Lakewood has made allowances in City Park Rules and Regulations for residents to perform fire mitigation on City land to help protect their property. The following is allowed:

Owners of real property adjacent to City parks may, where necessary to mitigate against the danger of wildfire, enter onto the City's park land for the purpose of maintaining and controlling vegetation in the area of City park land within ten (10) feet of the owner's property line, including but not limited to mowing, cutting or raking grasses and ground cover or removing, trimming, pruning or otherwise reducing shrubs, bushes, trees and other vegetation. Property owners must comply with the following conditions:

- Pre-approval is required for the removal of trees over three (3) inches in diameter.
- No clearing of vegetation down to mineral soil.
- No landscaping or other improvements will be allowed on City property.

Owners who choose to undertake such activities on City park land do so at their own risk and are subject to the same rights and responsibilities as other users of City park land.

City Staff Mitigation Plan

Beginning in 2022, park staff will implement mitigation efforts as described in the sections below:

- **William Frederick Hayden Park (Green Mountain) Plan 2022-2023**
 - Current conditions: Green Mountain is a 2400 acre open space that marks the transition zone between prairie and foothills ecosystems. Vegetation is dominated by remnant short grass prairie interspersed with dense shrubland and riparian corridors. Grassland areas include native grasses (blue grama, little blue stem, western wheatgrass), introduced species (smooth brome, bluegrass, agricultural rye) and invasive species such as downy brome (cheat grass). There are 3 main trailheads and approximately 20 miles of multi-use trails utilized heavily by hikers, mountain bikers and trail runners. Park visitation is estimated to be over 500,000 visitors per year. The park is bordered on the east and north sides by over 120 immediate neighboring properties with structures, connected to dense urban neighborhoods. The south side of the park is bordered by Alameda Parkway, and the west side by C-470. Neither of these areas is bordered immediately by neighboring properties with structures, however there are dense developments on the south and east side of Alameda Parkway.
 - Due to wildland fire history at this open space, Green Mountain will be the priority focus of staff mitigation efforts in 2022. Mitigation efforts will expand to the Ravines Open Spaces once these planned mitigation efforts are completed.
 - Planned Mitigation Efforts 2022 (see attached maps for detail)
 - Where feasible, mow up to 2 times per season to create a 20' buffer zone from property lines onto open space. First mowing will be targeted for late June. Second mowing will be added in September or October if growth conditions warrant.

- In areas where it is not possible to mow, staff will weed whip, or otherwise trim, grass and light fuels to create a 20' buffer zone. This will also be done up to 2 times per year.
 - There are some areas where a 20' buffer zone will not be possible to create or maintain. These areas have very steep slopes, some bordering on cliffsides, abutting neighboring properties. These areas are identified on the map attachments and fall mainly along S. Coors Drive, W. Kentucky Drive and W. Exposition Drive. In these areas, staff will mitigate to the extent possible but will emphasize maintaining vegetation cover to prevent erosion. Some areas will have mitigation buffers backed away from actual property lines.
 - Clear brush and shrubs within the buffer zone. Where possible, brush will be removed, chipped, and transported off site. Where this is not feasible, brush will be distributed a minimum of 50' from property lines and spread in an area to limit adding to the existing fuel load.
 - Cut and remove any trees under 6" DBH in the buffer zone.
 - Cut and remove any dead trees within the buffer zone.
 - Any native or desirable trees over 6" DBH: ladder limb trees up to 6' height to limit ladder fuels.
 - Any listed Colorado Noxious Weed tree species will be cut.
 - As with brush, trees that are cut will be limbed and bucked and will be chipped when possible. Where this is not feasible, material will be scattered as described above.
 - Cutting guidelines: trees and shrubs will be cut as close to ground level as possible. Where mower access is possible, brush and small stumps will be removed using hand tools if feasible. The park Natural Resource specialist will determine if chemical stump treatment will be used to control regrowth.
 - Maps and sample photos
- **Ravines Open Space Parks 2022-2023**
 - Current conditions: The Ravines Open Spaces include 9 separate parcels located south of Jewell/Alameda, and north of Morrison Road. Each ravine is bordered on at least one side by residences, with several ravines having residences on multiple sides (over 450 total neighboring properties with structures). The ravines are protected for two purposes: 1) urban drainage and water quality; 2) open space habitat. The properties are dominated by grassland vegetation on the upland areas, with moderate to dense native and non-native tree and shrub cover. Ravine bottom areas are dominated by riparian tree and shrub species and have extremely dense vegetation in many areas. The ravines have few developed recreational opportunities; however, they have multiple social trails cross-crossing them, and a small dog off-leash area located within Beech Park. Developed park areas with turf grass and recreational facilities exist within two of the ravines areas at Beech Park and Coyote Gulch.
 - The ravines all slope up towards Green Mountain, creating the possibility for rapid wildfire spread under windy conditions. For this reason, and the density of surrounding

development, these areas have been determined to be the second priority for fire mitigation efforts in Lakewood.

- General Planned Mitigation Efforts 2022/2023 (see attached maps for detail)
 - Staff have completed a mapping assessment of these open space properties to assess the following:
 - Boundary areas that are “Possible to Mow”.
 - Boundary areas that “Cannot be Mowed”.
 - Boundary areas that are “Ready to Mow”.
 - Areas identified as “Ready to Mow” will be added to the existing contract mowing starting in 2022. These areas will be mowed at least 2 times per season for fire mitigation purposes only, not for landscaping or aesthetic purposes. Areas will be mowed to a 20’ buffer where possible. Where not possible due to slope or dense vegetation, mowing will be completed to the width possible.
 - Areas identified as “Possible to Mow” are constrained by some type of site challenge, typically heavy vegetation. These areas will be the focus for City staff mitigation efforts starting in 2022 if feasible, with focus for completion in 2023. Fuel treatments in these areas will be completed with the intention of allowing mower access along boundary lines in future years. This will be accomplished as follows:
 - Clear brush and shrubs within 20’ buffer zone of property line. Where possible, brush will be removed, chipped, and transported off site. Where this is not feasible, brush will be distributed a minimum of 50’ from property lines and spread in an area to limit adding to the existing fuel load.
 - Where the clearance of a 20’ buffer zone is not possible due to terrain, brush, shrubs and trees will be removed to the extent possible to allow mower clearance.
 - Cut and remove any trees under 6” DBH in the buffer zone.
 - Cut and remove any dead trees within the buffer zone.
 - Any native or desirable trees over 6” DBH: ladder limb trees up to 6’ height to limit ladder fuels.
 - Any listed Colorado Noxious Weed tree species will be cut.
 - As with brush, trees that are cut will be limbed and bucked and will be chipped when possible. Where this is not feasible, material will be scattered as described above.
 - Cutting guidelines: trees and shrubs will be cut as close to ground level as possible. Where mower access is possible, brush and small stumps will be removed using hand tools if feasible. The park Natural Resource specialist will determine if chemical stump treatment will be used to control regrowth.
 - In areas where mitigation efforts do not result in safe access for mowing, staff will weed whip, or otherwise trim, grass and light fuels to create a 20’ buffer zone, up to 2 times per year. If a 20’ zone is not

possible due to slopes or hazards, staff will clear light fuels to the extent practical.

- Areas identified as “Cannot be Mowed” are areas where site geography prevents mower access, typically steep slopes and cliff areas. These areas will be a focus for mitigation efforts beginning in 2023. Within these areas, staff will focus on reducing fuels to the extent practical beyond property lines. Due to steep slopes, vegetation removal of 20’ of buffer will not be possible in most areas. Staff will make efforts to clear a minimum of 10’.
- Ravines Open Space List (maps and sample photos)
 - Beech Park (? acres)
 - Forsberg/Iron Springs (? Acres)
 - Coyote Gulch (14 acres)
 - Loveland Trail (6 acres)
 - Ravines and Lower Ravines Open Space (50 acres)
 - Tamarisk Open Space (16 acres)
 - Hutchinson Park (15 acres)
 - Heritage Hill (15 acres)
 - Ute Trail (39 acres)

Additional Mitigation Efforts

- Park staff are evaluating the use of goats to assist with fuels reduction treatments. Use of goats in certain boundary areas will be piloted in 2022. Staff will survey the treatment areas before and after grazing to evaluate the effectiveness. Site evaluation will include vegetation type, vegetation height, ground cover percentage, and soil impacts.
- The City is pursuing grant funding for 2023 through the Colorado Strategic Wildfire Action Program. If approved, this program will fund a Youth Corps work crew to assist with fire mitigation efforts.
- The City will pursue funding for equipment to assist with mitigation efforts, including
- Lakewood staff are working closely with West Metro Fire Rescue to continue evaluating fire hazards and risk reduction and to provide education to residents. Lakewood Parks will also continue working with West Metro on:
 - Providing firefighter training opportunities on open space properties.
 - Evaluating the potential for future resumption of the prescribed fire program for fire mitigation and resource management.
 - Maintaining and developing in-house wildland fire response capabilities.

Future Mitigation Plans

As the steps in this plan are completed, Lakewood staff will focus efforts on the following:

- Ensuring that completed mitigation efforts are maintained annually.
- Evaluating expansion of fire mitigation fuels treatments to additional open space and natural area parks.

- Evaluating expansion of fuel treatments into open space parks beyond the 20' buffer to create fuel breaks and reduce potential fire severity.
- Evaluate restoration projects utilizing fire resistant native plants.
- Continue to pursue grant funding opportunities.

Community Outreach and Education

Lakewood, in partnership with West Metro Fire Rescue, will provide ongoing outreach and education efforts to Lakewood residents. This will include:

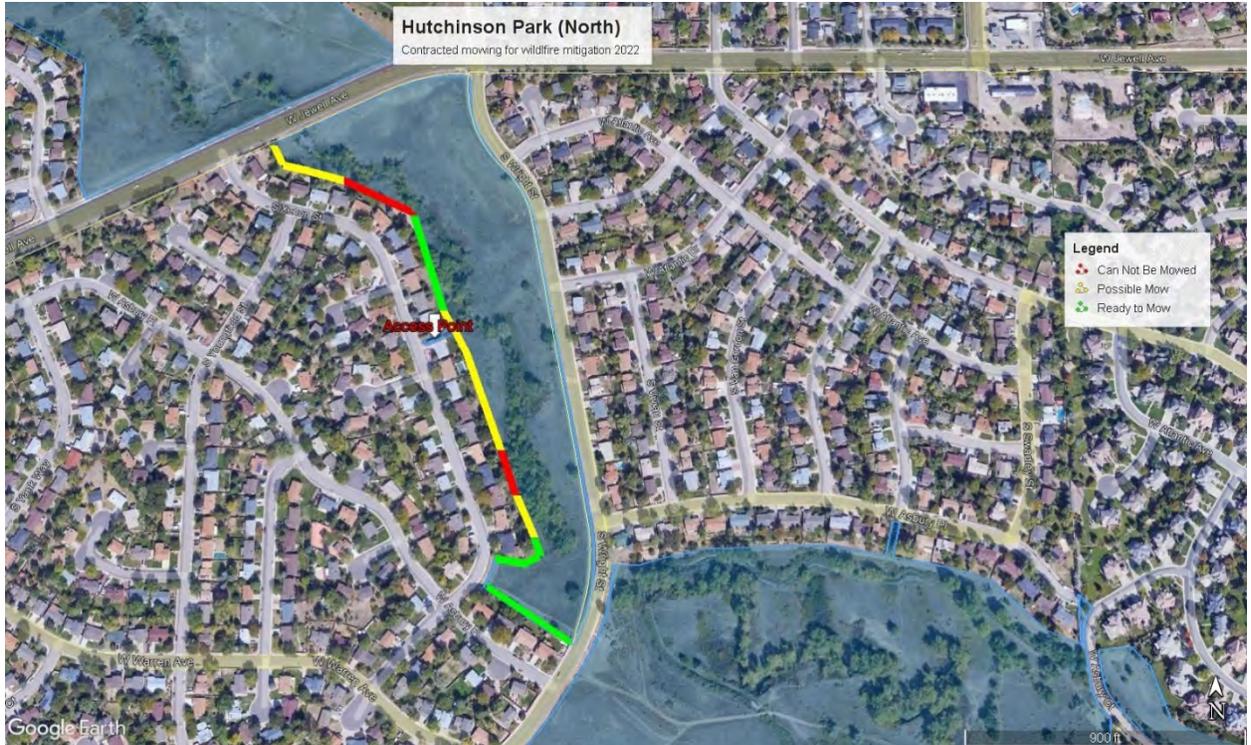
- Updates to the City's Wildfire Preparedness and the Parks Management Wildfire Safety webpages.
- Development and distribution of the "Quick Guide to Home Wildfire Protection" brochure.
- Updates to City social media as mitigation efforts are implemented.
- Direct mailings to neighbors of open space prior to the start of mitigation work.

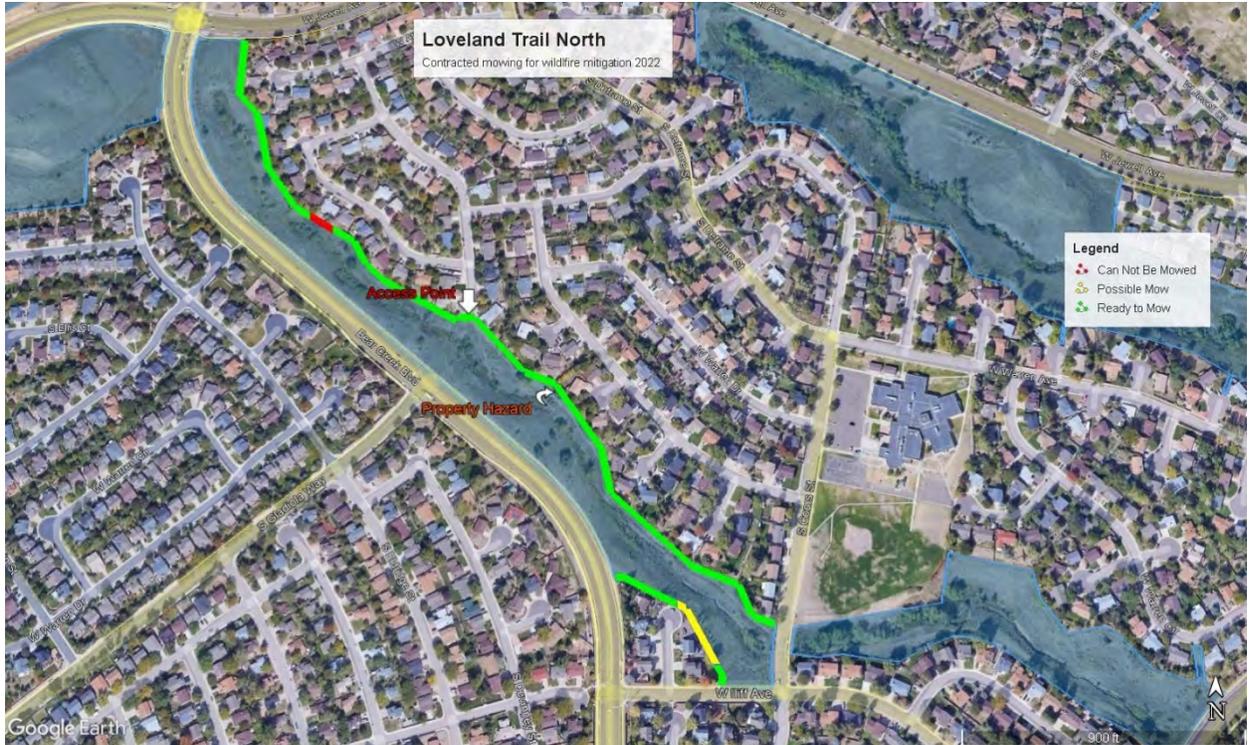
Ravines Open Spaces Mapping

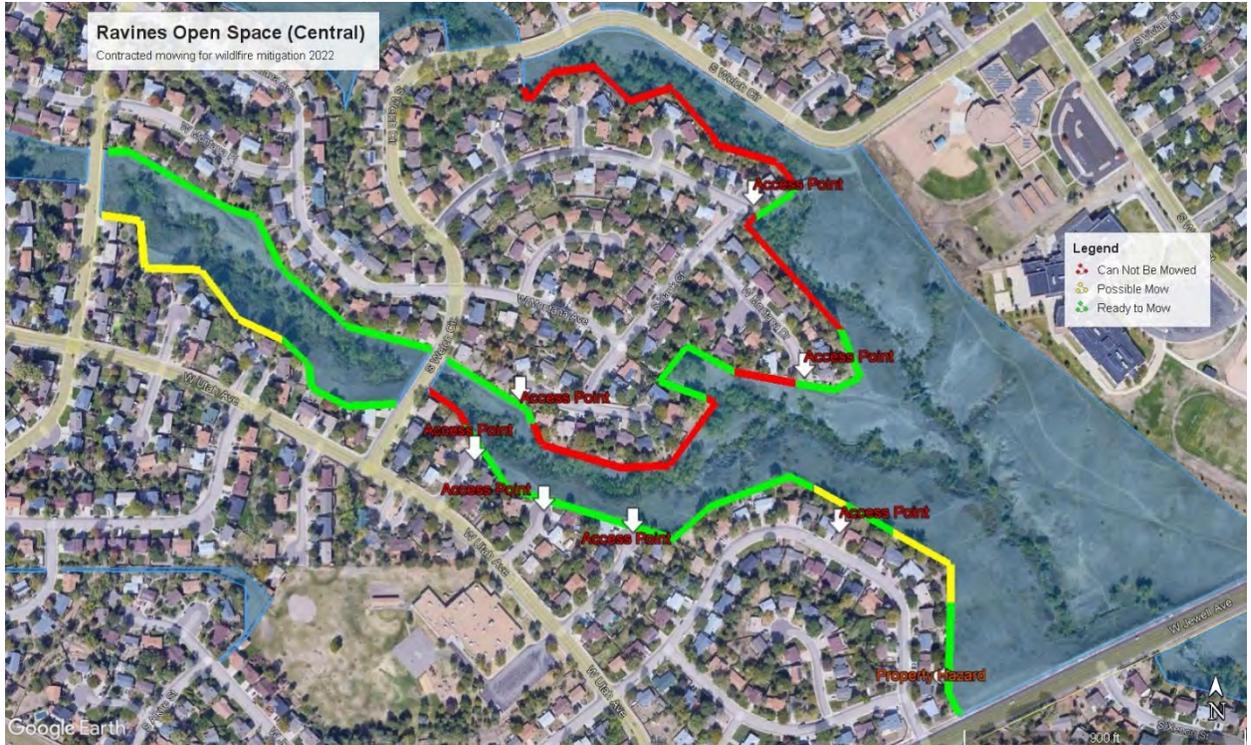


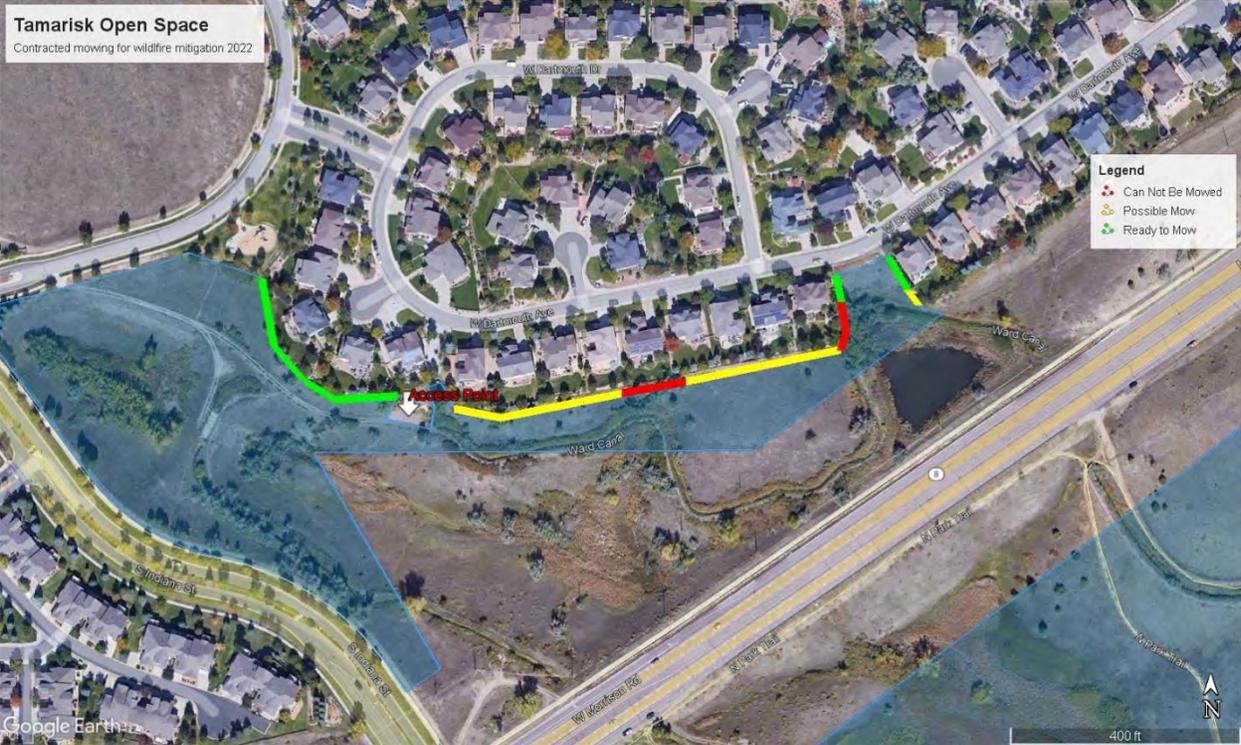




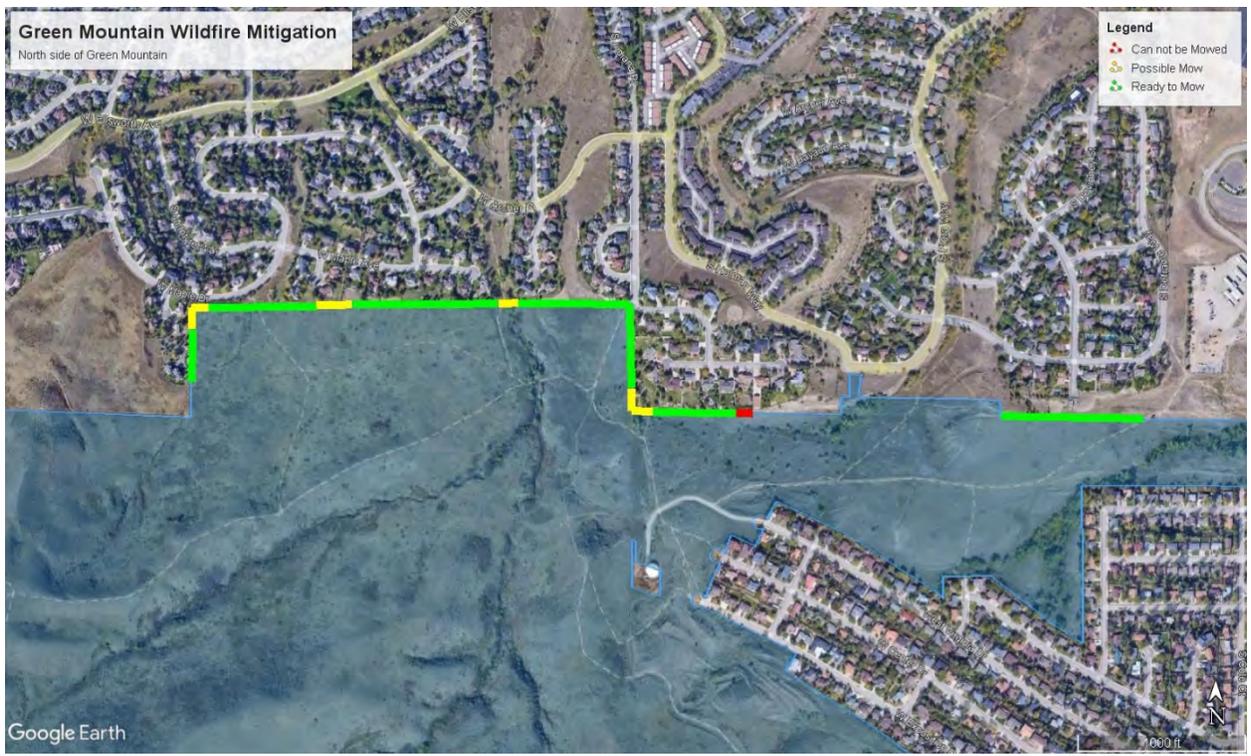












Beech Park Sample Boundary and Encroachment



Coyote Gulch Encroachment and
Sample Boundary



Loveland Trail and Ravines Open
Space



Ute Trail and Ravines Open Space



Green Mountain Foothills Drive to
Coors Drive



Green Mountain Alameda Pkwy to
Foothills Drive



Green Mountain West Exposition
Drive



Green Mountain West Kentucky Drive



Green Mountain Encroachment at W.
Exposition Drive

