

# Hilldale Pines Fuel Break Project Summary



ANN IMSE AND THE  
BROADER HILLDALE  
PINES COMMUNITY





The way to get started is to quit talking and begin doing.

Walt Disney



# Agenda

Current Situation

Planned Approach

Costs and Funding Needs

Summary and Closing

Q&A

Appendix: TLG Prescription



# The Hilldale Pines Community & Partners

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## HILLCDALE PINES

- The Hilldale Pines Community is a densely populated neighborhood of 300 homes within 1 square mile in the Jefferson County foothills. It is in one of the highest-risk areas for devastating wildfire in the state
- Given current fuel, escape routes and population, we would have little time to escape
- Given the number of downed trees to our west, firefighters would struggle to douse a lightning strike before it reaches us

## EXAMPLE FROM MCNIERNEY PROPERTY



# The Hilldale Pines Community & Partners

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## PARTNERS

- Community-wide efforts can have a major effect on slowing or stopping wildfire. We have an unusual opportunity to build on the efforts of others.

- Partners in this plan:

Denver Mountain Parks

Colorado Watershed Assembly

Chatfield Watershed Association

Colorado Strategic Wildfire Action Program

Private Landowners Little, Pool, and McNierney

Ann Imse and Robert Tonsing

Forester Lyle Laverty

HP Safe

Rocky Mountain Youth Corps

And

YOU, the Hilldale Pines Community

# CWA and COSWAP

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## COLORADO WATERSHED ASSEMBLY

- CWA is sponsoring the project, bringing expertise and liability insurance
- Most of Hilledale Pines is in the Deer Creek watershed, feeding Chatfield Reservoir, that helps provide drinking water to 500,000 people
- A fire in Hilledale would create toxic ash and sediment, contaminating this water source and blocking pipelines
- Chatfield Watershed has donated \$5,000.

## COLORADO STRATEGIC WILDFIRE ACTION PROGRAM

- COSWAP, the Colorado Strategic Wildfire Action Program, was created after the 2020 wildfire season. It trains Americorps teams and helps communities to protect themselves. We expect a grant for the team to do 10 of our 20 acres this summer.

# Denver Mountain Parks & Landowners

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## D M P

- Project became possible when Denver Mountain Parks won a grant to thin its 80-acre park on the west side of Hilldale Pines.
- DMP contractor Rocky Mountain Ecology will start work as soon as weather allows, with heavy equipment
- Length: 1-2 weeks
- Access: Off Crag Road.
- Cost: \$252,000, from grant

## L A N D O W N E R S

- Three private landowners to the south of DMP and west of Hilldale Pines (Little, Pool and McNierney) have agreed to extension of the fuel break across their properties, extending its length to one mile
- Fuel break follows the ridgeline, as planned by Forester Lyle Laverty.

# Benefits and Summit County Success Story

## BENEFITS

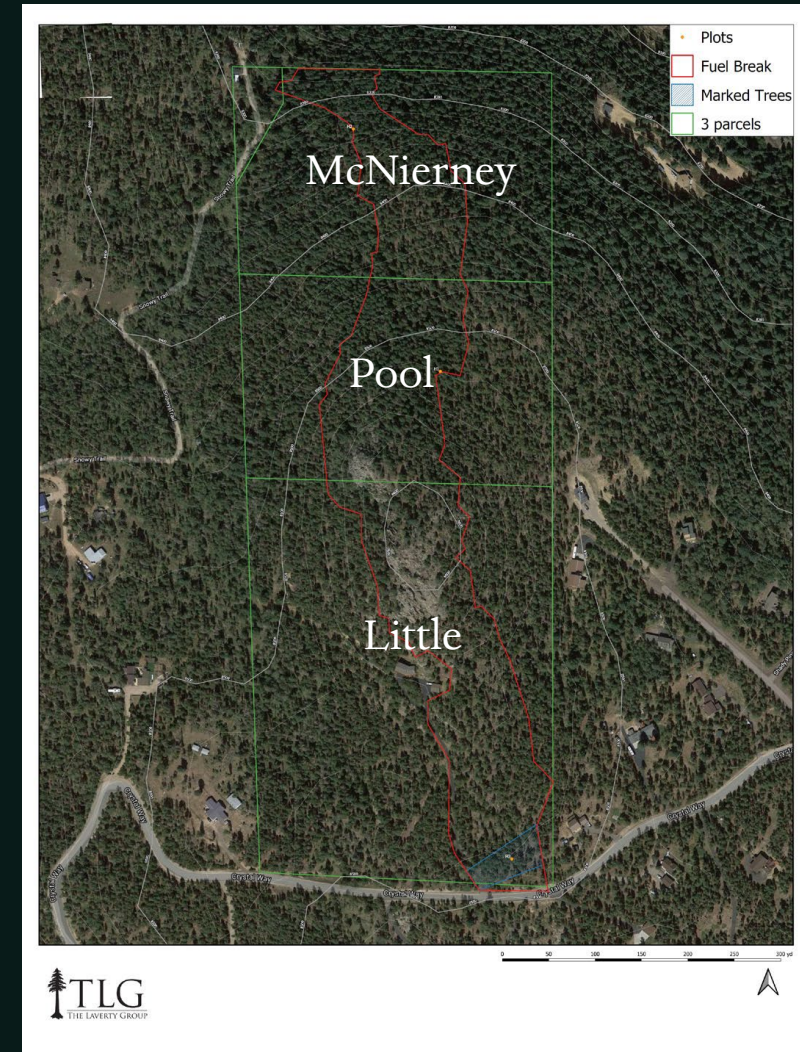
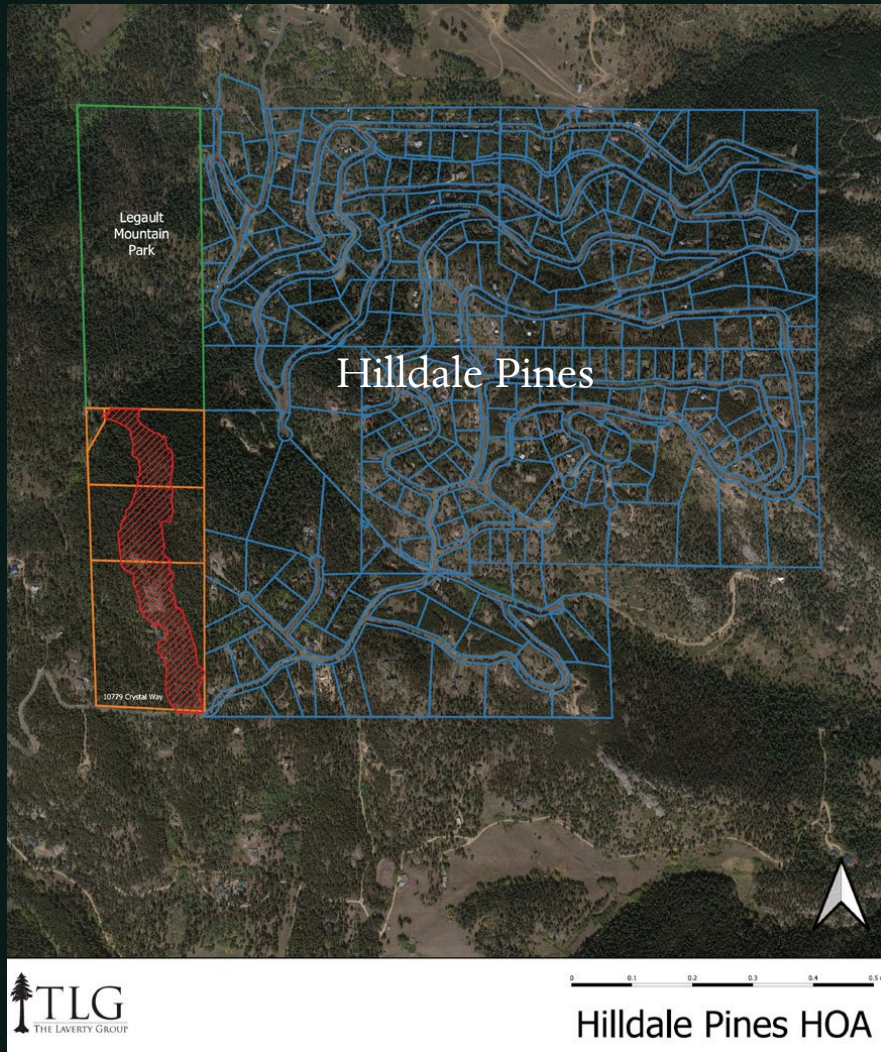
- One-mile-long fuel break, minimum 300 feet wide
- Access for firefighters to slow or stop the fire, including through air drops. Can extend time for evacuation
- Fuel break protects Deer Creek, Turkey Creek and Chatfield Watershed from toxic runoff
- High winds strike Hilledale Pines from the southwest. Fuel break will increase protection on the west.
- Photo to the right shows fuel break protecting 1400 homes in Summit County, from the Buffalo Fire in 2018
- Another example is Waldo Canyon, CO, 2012.

<https://www.fema.gov/case-study/cedar-heights-saved-during-waldo-canyon-fire>





# Map of Fuel Break



# 2 Stages of Hilldale Pines Fuel Break

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## STAGE 1

- Expand fuel break on the Little property
- Scope: 10 acres
- Mile High Youth Corps will use chainsaws and chippers; project manager will remove logs to Crystal Way to send to sawmill.
- Total cost: \$103,500
- State grant: \$93,875 approx.
- Match \$7,625, in hand, and \$2000 labor, from owners
- Start time: This summer

## STAGE 2

- Expand fuel break on Pool, McNierney properties
  - Scope: 10 acres
  - Cost: First bid \$80,000. More bids being sought.
- Financing:
- Sale of logs from Little property, \$10,000 to \$20,000
  - Look for grant
  - Fundraising: \$14,000 so far
- Start time: After Stage 1

# Funding

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- Most of this mile-long fuel break is funded by grants, including: \$262,000 for the DMP; and \$94,000 expected for the COSWAP grant for the Little property.

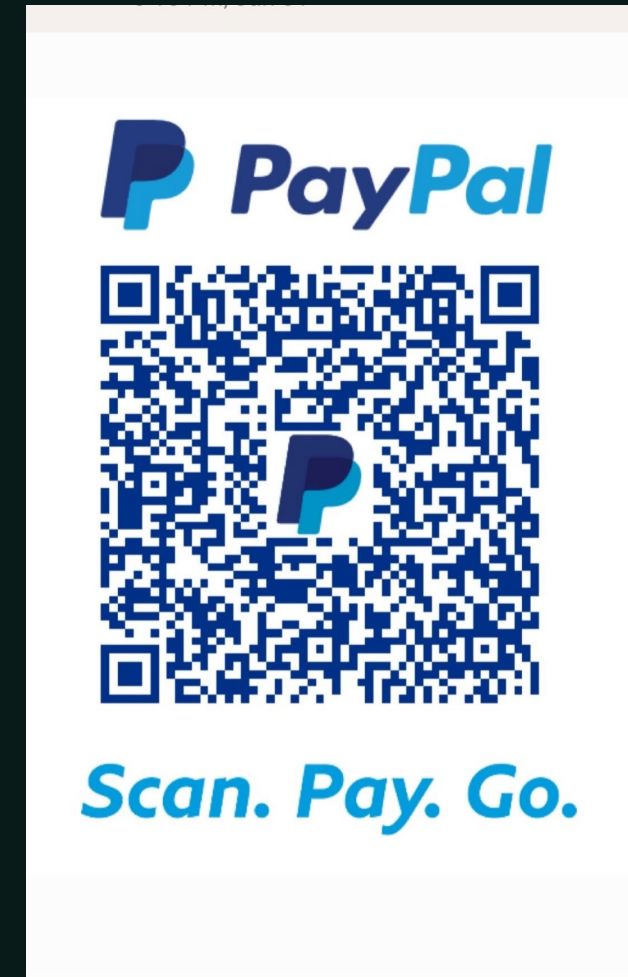
# Donation Info

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## DONATION DETAILS

- Conifer Rotary Foundation: 501 c (3) organization, has set up a special fund to sponsor this project. Credit card with fee: Go to [www.rotaryconifer.org](http://www.rotaryconifer.org). Click on the Donate button and say donation is for the Hilldale Pines Fuel Break; OR Check to Conifer Rotary Foundation given to Ann Imse or mailed; OR Zelle to [coniferrotaryfoundation@gmail.com](mailto:coniferrotaryfoundation@gmail.com).
- H.P. SAFE: Donations not tax deductible. Check to Hilldale Pines HOA, noted for Fuel Break, dropped in locking mailbox at 10127 Horizon View. (Sarah Kausch) or credit card at [www.hilldalepines.com](http://www.hilldalepines.com), or scan the QR Code to the right for direct payment
- Note: If the project falls through, you can ask for a refund.
- Would you like to help find grants?

HP Safe QR Code





## In closing

Hilldale Pines, unlike many communities in the recent past, has the foresight and the opportunity to prepare for what we all hope will never happen.

However, because we must prepare as if it will happen, the groundwork has been carefully laid to enable the Hilldale Fuel Break Project to become reality. But it is up to us! We look forward to making this project a reality as one community!

Thank you for attending!



Thank you

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Questions?

Ann Imse and the  
broader Hildale Pines  
Community



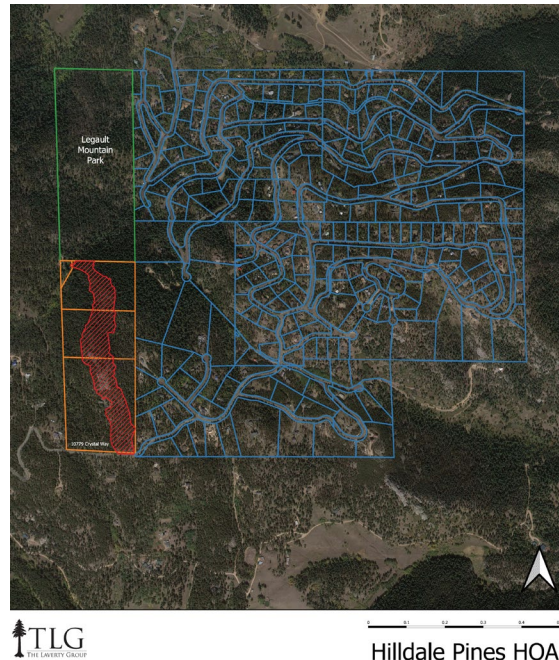
# Hilldale Pines Shaded Fuelbreak

## Forest Restoration and Wildfire Risk Mitigation Grant Program

### Project Proposal

#### Project Area Description and Current Conditions

The Hilldale Pines proposed Wildfire Risk Mitigation project is a shaded fuel break in Section 17, Township 6 North, Range 70 East. The project embraces approximately **20** acres of mixed conifer species strategically connecting the Hilldale Pines community with Denver Mountain Parks' planned fuelbreak along the northern half-mile of the western boundary of Hilldale Pines (**Figure 1**). The Inter-Canyon CWPP identified the Hilldale Pines community in the high wildfire risk category. The flammable environment creates risk to the community, the surrounding watershed and associated water quality and the limited access and egress route for the community.



**Figure 1**

The forest type within the planned fuel break is predominately lodgepole pine. Douglas-fir is mixed in the stand on the north facing slopes. The average stand height is 36 feet, with a quadratic mean stand diameter of approximately 8 inches. The stand density averages approximately **460** trees per acre. **Figure 2** displays the general structure of the existing stand. The stand is well outside the historic range of variability and has continuous vertical and horizontal fuel continuity which directly contributes to high

severity and catastrophic wildfires. The fuel model throughout the stand is generally 8/9 (Anderson). There are portions of the stand, however, with fuel model 10 characteristics.

Hilldale Pines										
DBH	TPA	Cuft	Scrib	Cut%	CutTPA	CutCuft	CutScrib	ResidTPA	ResidBA	
2	0	0	0	0	0	0	0	0	0	
4	76	53	0	0	0	0	0	76	6.63	
6	102	288	622	0	0	0	0	102	20.03	
8	134	805	2664	0	0	0	0	134	46.78	
10	140	1651	6168	0	0	0	0	140	76.36	
12	0	0	0	0	0	0	0	0	0	
14	5	108	414	0	0	0	0	5	5.35	
<b>Total</b>	<b>457</b>	<b>2905</b>	<b>9868</b>					<b>457</b>	<b>155.14</b>	
Average Diameter 7.5 inches										
Average Tree Height = 36 feet										

DBH (inches)	TPA
2	0
4	76
6	102
8	134
10	140
12	0
14	5

Figure 2

The Hilldale Pines

Hilldale project

rests in the headwaters of South Turkey Creek, an integral component of the Denver Water Collection System. The 47.2 square mile Turkey Creek watershed provides water needs for nearly 5,000 households. There are approximately **300** homes located in the Hilldale Pines community near Conifer in dense mixed conifer forest, with vertical relief of 1000 feet on the north and east aspects of the community. Prevailing winds are generally from the southwest, often more than 20 mph and sometimes more than 60 mph. The planned shaded fuel break is consistent with the Inter-Canyon Fire Protection District CWPP mitigation recommendations.

Multiple wildfires in the past two decades have highlighted the vulnerability of communities such as Hilldale Pines to catastrophic large scale high-severity wildfire with negative impacts to critical watersheds through post fire erosion, sedimentation, and debris flows.

### Project Goals

The goal of the Hilldale Pines project is to construct and complete a 2700-foot shaded fuelbreak along the ridge from South Crystal Way to the planned Denver Mountain Parks fuel mitigation project on the north. Based on the topography of the project area, the width of the shaded fuel break varies from 300 to 325 feet in width (Figure 3). Specifically, the goals of the Hilldale Pines shaded fuelbreak are to:

*Goal 1: Alter or modify surface fuels;*



*Goal 2: Remove ladder fuels and increase the height to the base of live crowns;*

*Goal 3: Open the canopy by removing trees;*

- Reduce tree density by increasing crown separation to reduce the risk of catastrophic wildfire.

*Goal 4: Facilitate fire suppression operations (ground and air)*



**Figure 3**

### **Prescription**

The shaded fuel break prescription is based on Colorado State Forest Service guidelines. The fuel break is designed using *Fuelbreak Guidelines for Forested Subdivisions & Communities* (Dennis) and GTR 373. Defensible space for structures will be guided by Colorado State Forest Service Fire 2012-1, *Protecting Your Home from Wildfire: Creating Wildfire-Defensible Zones*. In order to reduce negative impact to the riparian area, the *Forestry Best Management Practices to Protect Water Quality in Colorado* (2010) will be followed.

The project prescription is to reduce the stand density by creating crown separation of **10 to 15** feet between the edges of tree crowns. To accomplish project goals, all trees less than 10 inches in diameter will be removed to reduce the stand density. Additionally, 40 percent of the 10-inch diameter

trees will be removed to open the canopy and create essential crown separation. Ground fuels will be removed or modified to break up the continuous fuel conditions. Small, isolated groups of trees may be retained for visual diversity. Slash and debris will be removed, masticated, or burned. Diseased and ladder fuels will be removed. The planned mitigation will reduce the stand density by removing approximately 400 trees per acre, with a residual of approximately **40** trees per acre. The post mitigation stand structure is displayed in **Figure 4**.

DBH	TPA	Cuft	Scrib	Cut%	CutTPA	CutCuft	CutScrib	ResidTPA	ResidBA
2	0	0	0	0	0	0	0	0	0
4	76	53	0	100	76	53	0	0	0
6	102	302	681	100	102	302	681	0	0
8	134	791	2605	100	134	791	2605	0	0
10	140	1630	6080	75	105	1222.5	4560	35	19.0897
12	0	0	0	0	0	0	0	0	0
14	5	108	414	0	0	0	0	5	5.345116
<b>Total</b>	<b>457</b>	<b>2884</b>	<b>9780</b>		<b>417</b>	<b>2368.5</b>	<b>7846</b>	<b>40</b>	<b>24.43482</b>

**Figure 4**

### Strategic Value of Project

Strategically, the Hilldale Pines project reduces potential risk to lives, property, infrastructure, and watershed values from catastrophic wildfire. Specifically, the project protects the watershed values of Turkey Creek, water used by thousands of residents in the watershed and in the Denver metropolitan area and reduces wildfire risk to the Hilldale Pines community which embraces nearly 300 homes. Additionally, thousands of homes and millions of dollars of infrastructure (roads, utilities, and communication towers) are located in the watershed. The 2020 Colorado State Forest Service Action Plan identifies the project area and all of the Hilldale Pines community in a highest priority area.

The planned shaded fuelbreak links with a larger landscape scale project planned by Denver Mountain Parks, including a project directly adjacent to Hilldale Pines, and two within a mile to the west, totaling 120 acres. This project compliments projects in Meyer Ranch Open Space to the west and Lorenz family ranch properties between this project and Meyer Ranch.

The Hilldale Pines project actively addresses goals of both Elk Creek and Inter-Canyon Fire Protection Districts by:

- Reducing continuous tree cover;
- Reducing ground vegetation;
- Improving options for wildfire suppression by reducing the potential for crown fire;
- Reducing wildfire intensity and rate of spread near evacuation routes.

We look forward to working with you on this important project.

Lyle Laverty, Certified Forester, SAF, ACF  
 Former Assistant Secretary of Interior  
 US Forest Service Regional Forester (ret)