

Neighborhood Mitigation Plan: Ponderosa Hills

The Ponderosa Hills Neighborhood Mitigation Plan (NMP) is a cooperative effort between the Ponderosa Hills Civic Association (PHCA), homeowners and South Metro Fire Rescue (SMFR). Members of these entities stand committed to implementing its recommendations and continuing their mitigation efforts to reduce the risk of wildfire faced in this community.

Using the 2009 SMFR Community Wildfire Protection Plan (CWPP) as a springboard, this NMP assesses the hazards and vulnerabilities of this community and identifies a path for the community to follow by prioritizing projects to reduce risk from wildfires. It also will document previous accomplishments. The PHCA Wildfire Mitigation Committee will review and update this plan as needed and share it with residents and other interested stakeholders.

Community Description

Ponderosa Hills was developed initially in the early 1960s in a hilly rural area northeast of the Town of Parker. By the 1990s, most of the lots had homes on them. (See Maps 1.1 and 2.1-2.4 in Appendix A.) Beyond adding homes to the few vacant lots in the subdivision, Ponderosa Hills is unable to expand. Because wildfires don't confine themselves to political boundaries, this plan also references areas that can be described as a zone of influence. The zone of influence, which includes neighboring subdivisions to the west, north, east and south, appears in Map 1.2 in Appendix A.

Governance for this area began in 1962 when a three-member Architectural Control Committee was established to enforce protective covenants for Filing 2. However, that organization no longer exists. The PHCA was created in 1965 as a volunteer association. It is governed by an elected five-member Board of Directors. The PHCA has bylaws that govern its functions, but as a social association it has no covenants or enforcement authority in the community. It has several standing committees including "Fire Preparedness." This committee expressly works with SMFR "to improve fire preparedness in Ponderosa Hills."

In addition to the homes and their contents, there are not many economic values at risk in this community. The values that are at risk include:

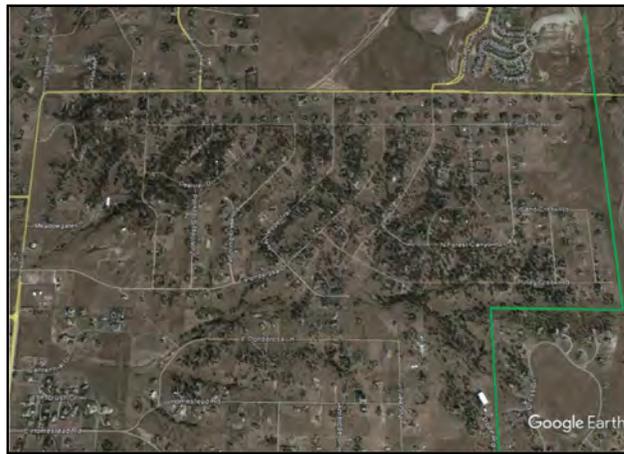
- Utilities maintained by several entities such as the high-tension electrical lines that parallel the southern border of the neighborhood.
- PHCA maintains a park in the 8400 Block of Piney Creek Road.

Utilities

Water: All domestic water comes from wells in Ponderosa Hills. Those wells draw water from three aquifers: Upper Dawson, Lower Dawson, and Denver. According to a U.S. Geological Survey study covering 2012-2016, the water table is dropping about six inches annually, which is less than hydrologists expected. All water for firefighting must be transported in tenders.

Sewer: Each property has a septic system to handle waste water.

Electrical: Electrical service is provided through the Intermountain Rural Electric Association (IREA). In this neighborhood, all of the lines are above ground. The high-tension lines are shown as green lines in this illustration:



There are no significant petroleum pipelines in the community beyond the distribution lines that connect to each home.

The first-due firefighting resources respond from SMFR Station 41 (10795 Pine Drive, Parker, 80138) and Station 47 (11685 Tomahawk Road, Parker, 80125). Although it is close to the City of Parker, Ponderosa Hills is a rural community with a limited water supply for firefighting efforts. The neighborhood is rated as a 3 in the ISO Public Protection Classification (PPC) system.

Community Values

Community covenants are one window into what a community values. In terms of wildfire mitigation and preparedness, there are only a couple covenants in the Ponderosa Filing 2, written and accepted in March 1962, that related to fire safety:

- No open fires will be permitted in the Ponderosa Hills Filing No. 2.
- None of the native pine or cedar trees of Ponderosa Hills Filing No. 2 will be cut or removed without the express approval of the Architectural Control Committee.

Such approval shall not be unreasonably withheld in connection with the proposed construction of improvements.

The latter covenant is tempered by current state law (CRS 38-33.3-106.5), which allows homeowners to reduce or change vegetation on their property without approval of the governing board as long as the mitigation occurs in an area covered by a Community Wildfire Protection Plan and the homeowners give notice to the board that such changes will be occurring. Homeowners also are required to provide the Architectural Control Committee with a plan for the mitigation work. Otherwise, there are no requirements that property owners manage their vegetation.

Since the Architectural Control Committee no longer exists, enforcing or interpreting those covenants is nearly moot, but that guiding document remains active and, according to Article 16, be enforced by individual property owners. Initially the covenants were set to expire after 25 years (1987), but renew automatically for periods of 10 years unless residents voted to amend them.

The PHCA is active in mitigation, which demonstrates the value residents place on safety. In 2015 the PHCA applied for a Wildfire Community Preparedness Day grant from the NFPA. In the application, the PHCA identified several projects it already completes to reduce the risk of wildfire danger including public meetings, slash collection events and encouraging residents to have their homes assessed for risk by SMFR. The full application is available in Appendix B.

Fire History

Ponderosa Hills was built within the northern end of the Black Forest, which is a wildfire-prone ecosystem. Between 2009 and 2016, eight wildfires have burned within this neighborhood.

Date	Address	Ignition Cause	Acres Burned
February 2009	Summit Road	Undetermined	Not recorded
March 2009	Meadowgate Lane	Act of Nature	.3
April 2010	Spring Creek Road	Intentional	Not recorded
May 2010	Summit Road	Act of Nature	Not recorded
October 2012	Ponderosa/Lost Canyon	Intentional	.2
February 2015	Spring Creek Road	Undetermined	.2
August 2015	Summit Road	Intentional	.1
September 2016	Antelope Trail	Act of Nature	.1

A map of the fire locations is attached as Map 3 in Appendix A, while images from the 2016 wildfire are in Appendix D.

Community Risk Assessment

According to the SMFR Community Wildfire Protection Plan (CWPP), the wildfire risk of Ponderosa Hills is rated as High because few homes in this wildfire-prone ecosystem have adequate defensible space and many have flammable native or ornamental landscaping adjacent to the structure. Many homes have irrigated lawns with flammable vegetation interspersed. Some homes lack address markers; most homes only post the address on their mailboxes.

In terms of the built environment, most of the homes in this community are built on lots between one and five acres in size, but a handful of properties are larger. There is a mix of older and newer construction, but wood siding with asphalt roofing is dominant. Flammable decks and projections are common as well. Several properties have barns or similar detached structures for horses, chickens and other livestock.

Access to the neighborhood is excellent from the west along Pine Lane and north from Inspiration Drive. Roads within the neighborhood are dirt is mostly on good dirt roads, but there are some long narrow driveways with no or in-adequate turnarounds for large apparatus. Some homeowners have installed gates on their driveways; residents with gate codes are encouraged to share those codes with county and fire department dispatchers.

The primary fuels are light to moderate loads of grasses and moderate to heavy loads of open-canopy ponderosa pine growing in both small and large groves with a grass understory. Riparian shrubs also grow in stringers along drainage bottoms. The topography includes hills south of Inspiration Drive but flatter areas along Inspiration Drive.

SMFR asked residents to participate in an online survey to gauge its attitudes toward wildfire risk. Fifty-one people participated in 2014. Results from the 2014 survey show residents share SMFR's belief that the risk of wildfire for the entire community is moderate to extreme. As mentioned above, 51 people submitted their survey answers. As the following table reveals, respondents assessed the community's wildfire risk higher the longer they had lived there.

Years in Neighborhood	Risk Assessment	Total
0-5 years	3 - Moderate Risk	3
	4 - High Risk	3
	5 - Extreme Risk	3
0-5 years Total		9
6-10 years	3 - Moderate Risk	2
	4 - High Risk	4
	(blank)	1
6-10 years Total		7
11-20 years	2 - Low Risk	1

	3 - Moderate Risk	4
	4 - High Risk	4
	5 - Extreme Risk	2
11-20 years Total		11
21 years or more	2 - Low Risk	1
	3 - Moderate Risk	7
	4 - High Risk	10
	5 - Extreme Risk	6
21 years or more Total		24
Total		51

Not surprisingly, residents rated the risk of their own homes lower than the risk for the neighborhood as a whole.

Neighborhood Wildfire Risk	Rating	Home Wildfire Risk
2	Low Risk	8
16	Moderate Risk	23
21	High Risk	10
11	Extreme Risk	9

Because residents perceive less control over the neighborhood as a whole than their own homes, they tend to underestimate the risk of their homes.

The survey results revealed community characteristics that could influence fire behavior and the impact of a wildfire before, during and after the incident. These factors as well as factors from the CWPP are shown below in a Haddon Matrix. Each white cell identifies characteristics of Ponderosa Hills in three general categories: human, physical environment and social environment. Human characteristics include attitudes, knowledge and behaviors. The physical environment includes topography, climate and human structures. The social environment includes cultural issues, laws, covenants and capacity to mitigate, respond to and recover from wildfires. The matrix also identifies characteristics before, during and after a wildfire occurs:

	Human	Physical Environment	Social Environment
Before the fire	Pets, livestock Vulnerable family members Low interest in evacuation drills Unknown preparedness levels Personal mitigation efforts	Wildfire-prone ecosystem Wood-frame homes Flammable vegetation Rolling hills Fewer wood-shake roofs Hardened structures	No covenants State mitigation law PHCA mitigation projects SMFR interface training

During the fire	Residents likely to evacuate	Ember traps Sources of radiant heat	SMFR, mutual aid response
After the fire	Willingness to return	Home damage Infrastructure damage Ecosystem change	Insurance company policies New code requirements

Most of these characteristics can be modified. As a result, this Neighborhood Mitigation Plan’s goals are based on information captured in the surveys and matrix.

Accomplishments

In the 2014 survey, respondents believed the most successful mitigation projects placed responsibility on the PHCA, contractors and government rather than relying on individuals to act on their own.

Mitigation Strategy	Average Rating (maximum of 5pt)
Hire a private company to create defensible space on private property	2.98
Reduce vegetation on public lands with controlled burning	2.89
Change covenants or laws to mandate defensible space	2.74
Reduce vegetation on public lands with mechanical treatments	2.31
Increase firefighting equipment	2.20
Increase the number of firefighters	2.16
Reduce vegetation along roadways	1.96
Conduct community outreach and education programs	1.81
Increase water availability	1.63
Encourage homeowners to create defensible space on their own property	1.43

Nearly 90% of respondents said they were willing to participate in a mitigation project, which explains the success of the PHCA efforts. Annually, the PHCA pays for a dumpster day for residents to dispose of trash and a slash collection day to encourage residents to remove vegetation from their properties. Twice it has volunteered the neighborhood to be the backdrop for SMFR’s annual wildland firefighting refresher that all firefighters must attend. It also conducts events on the annual Wildfire Preparedness Day, such as a bridle path mitigation project, to generate interest for wildfire mitigation and preparedness among residents. Images from those efforts are in Appendix C.

Risk Reduction Priorities

Working with SMFR, the PHCA Board of Directors has identified the following fuel treatment and risk reduction priorities for its neighborhood:

- A. The greatest threat to the neighborhood is the combination of growing and built fuels on private property. More homeowners must own the responsibility for this risk reduction utilizing the resources of SMFR and other entities for guidance.
- B. Mowing along the southern border of homes bordering the utility easement is the second fuel treatment priority. Although the easement belongs to IREA, those homeowners are encouraged to create a mow strip along their fence lines that measures 10-feet wide. Because a given fuel can produce a flame length 1 ½ times its height, the mow strips will decrease the intensity of a grassfire approaching from the south, giving firefighters safer opportunities to engage the fire and giving residents more time to escape.
 - In 2016, Douglas County’s Mitigation Crew successfully mitigated vegetation on its open space parcel to the west of the utility easement.
- C. Electrical hazards: IREA has a program for vegetation management to reduce the impact of tree branches contacting power lines. Although the Vegetation Management Program has a coordinated schedule, IREA depends on members (customers) reporting potential hazards by calling 800-332-9540.
- D. Park and Bridle Trail: Members of the PHCA will continue treating the park and trail annually.
- E. Evacuation Drill: An attempt to facilitate an evacuation drill with Douglas County’s Office of Emergency Management in 2014 failed because not enough residents opted to participate. A flier from the drill is attached as Appendix E. An evacuation drill is a great educational tool and the PHCA Board has expressed interest in attempting one again.
- F. Apply for and Maintain Firewise Status: Firewise USA requires that a community create a committee responsible for coordinating mitigation efforts, provide education to residents, maintain a hazard assessment and treatment priority list and invest \$2 per capita in mitigation. The PHCA’s wildfire mitigation committee will take the lead on this effort.
- G. Covenant Updates: Although the PHCA doesn’t currently have authority to create or enforce covenants, the neighborhood could benefit from rules governing vegetation management and hardening homes to resist wildfires. Amending the PHCA’s bylaws to create and enforce covenants or other rules may be beneficial and help craft a fire-adapted community.

Community risk reduction takes a village; it requires individual actions and collective action to be effective over a longer term. In addition to the priorities listed above, PHCA and SMFRA will utilize education and empowerment tactics to reduce the impact of wildfire.

- Subject Matter Experts – PHCA will continue sharing opportunities to educate residents about wildfire risk utilizing resources and personnel from SMFR,

Colorado State Forest Service, Douglas County and other entities. Those subject matter experts will attend meetings and community events, contribute to newsletters and websites, and conduct home ignition zone assessments when requested by residents.

- Home assessments – SMFR offers home ignition zone assessments to residents in which agency personnel meet with residents to discuss strategies for reducing risk to the home’s exterior. Each assessment lasts 30-40 minutes and is free to residents.

Communications with the Community

There are several methods to share information with community members in addition to meetings of the homeowners association and its board of directors:

- Website (www.ponderosahills.org)
- Newsletters (SMFR’s *Fireline*)
- Social Media (Next Door, Facebook)

Since 2010, SMFR personnel have frequently attended meetings and events for Ponderosa Hills to address wildfire risk reduction.

The Road Forward

The Board of Directors of PHCA approved this neighborhood mitigation plan at its April 2017 meeting. Going forward, the wildfire mitigation subcommittee plans to survey open space areas after the spring green-up annually and update the plan as needed.

Appendix A: Maps

Map 1.1 Ponderosa Hills in 2017

Map 1.2 Ponderosa Hills and its Zone of Influence

Map 2.1 Ponderosa Hills in 1956 (Google Earth)

Map 2.2 Ponderosa Hills in 1999 (Google Earth)

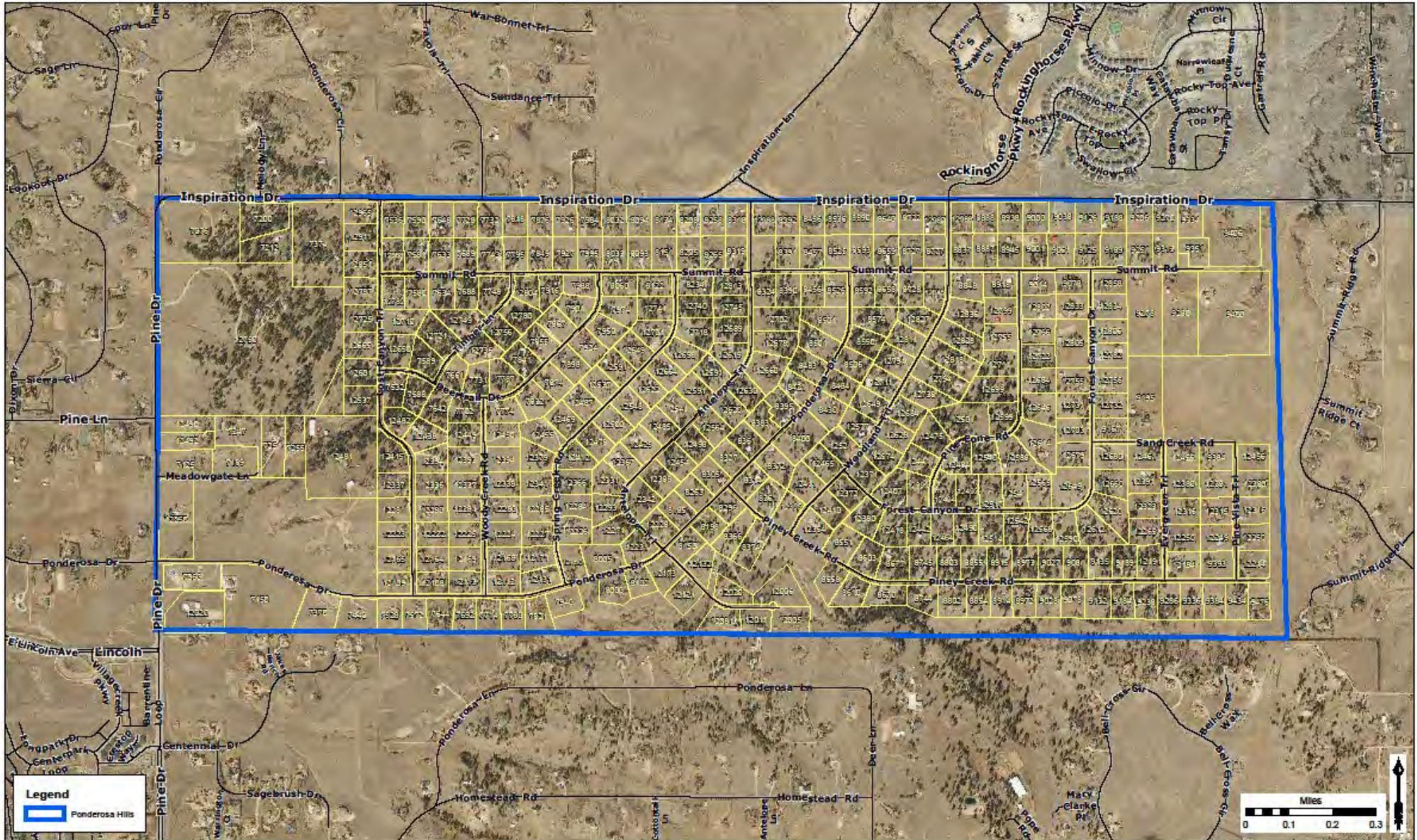
Map 2.3 Ponderosa Hills in 2008 (Google Earth)

Map 2.4 Ponderosa Hills in 2015 (Google Earth)

Map 1.1 Ponderosa Hills in 2017



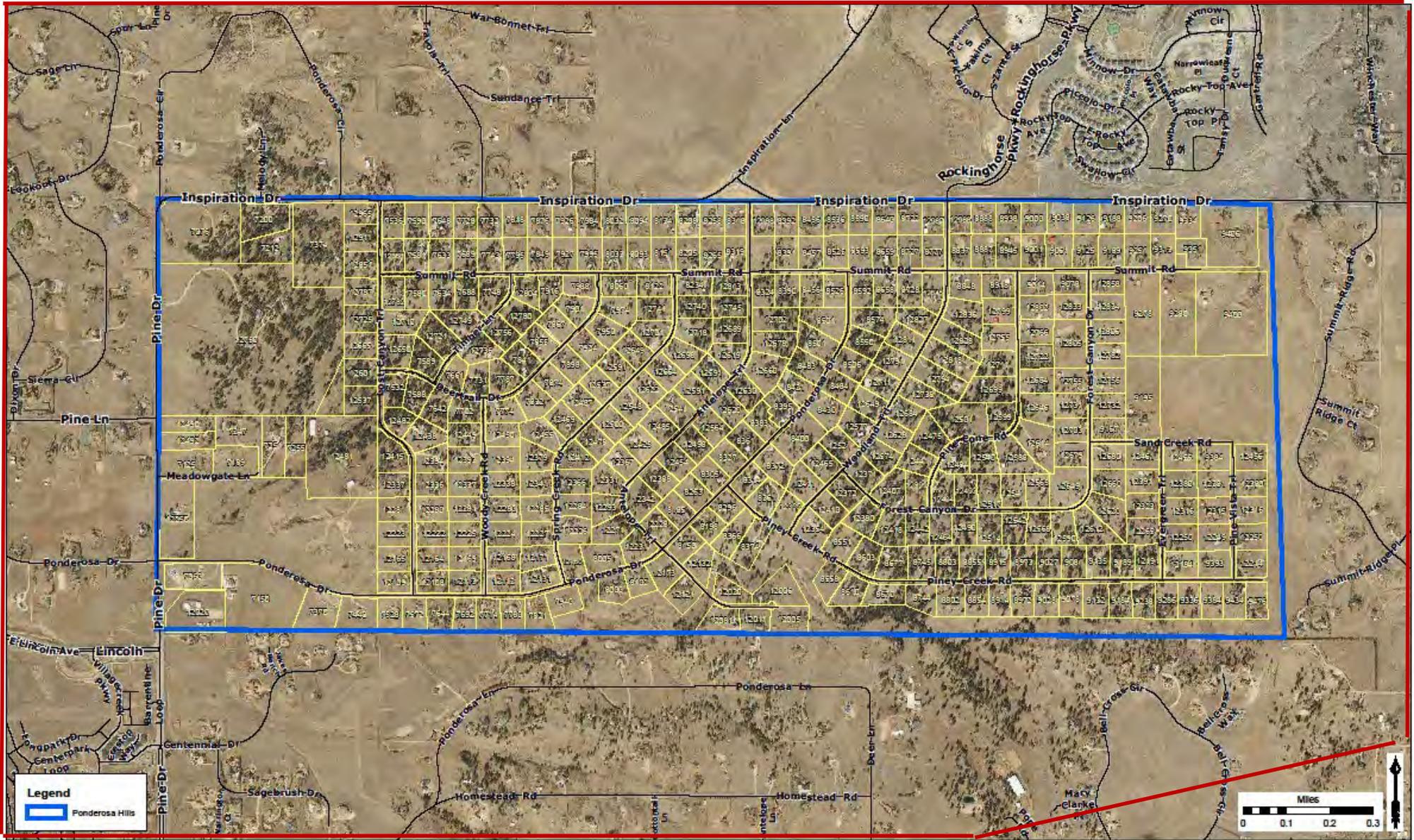
PONDEROSA HILLS



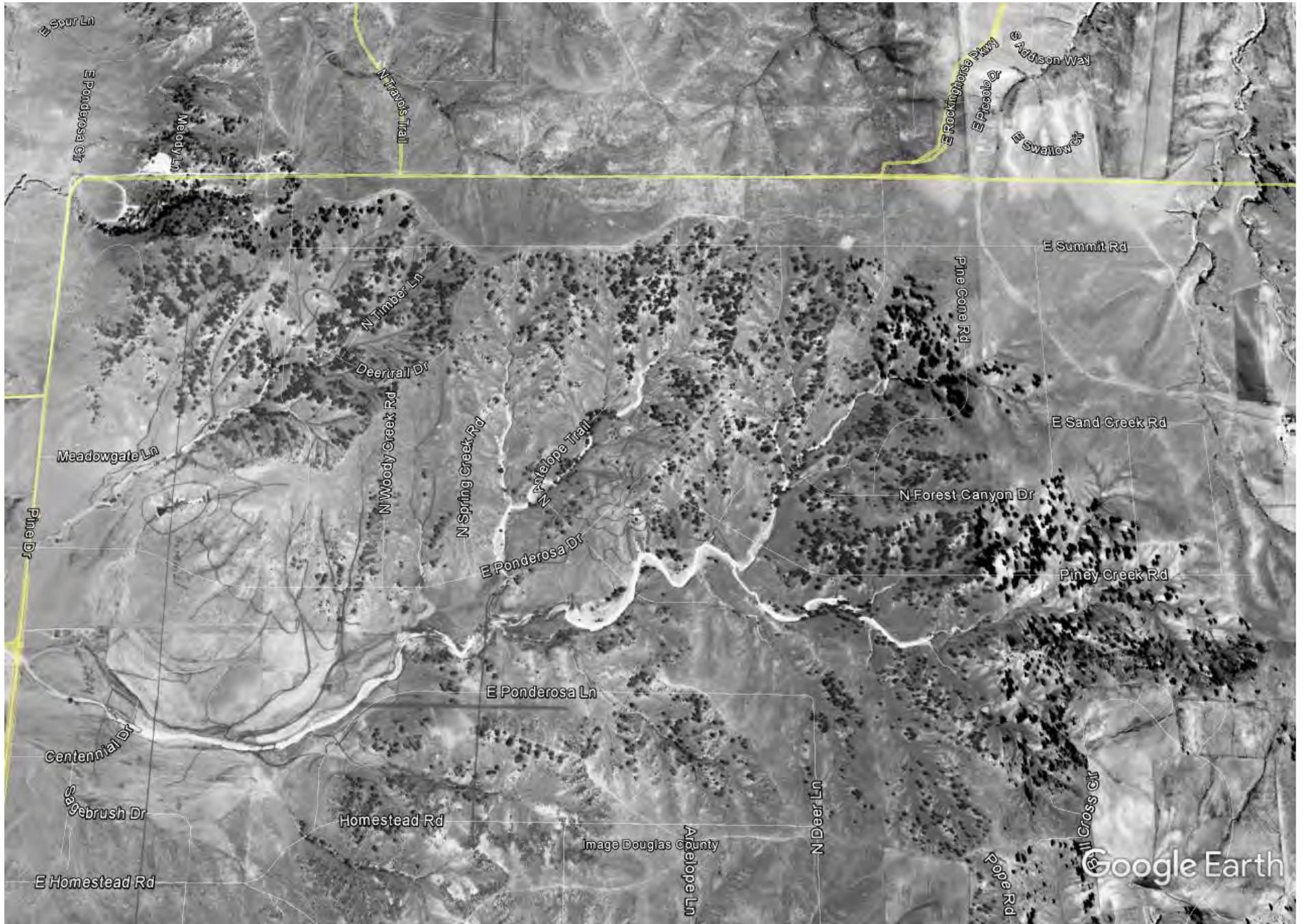
Map 1.2 Ponderosa Hills - Zone of Influence (between blue and red lines)



PONDEROSA HILLS



Map 2.1 Ponderosa Hills, 1956



Map 2.2 Ponderosa Hills, 1999



Map 2.3 Ponderosa Hills, 2008



Map 2.4 Ponderosa Hills, 2015



Wildfire Community Preparedness Day Project Grant Application

Ponderosa Hills subdivision
Parker, Colorado
Ponderosa Hills Civic Association
Cathy Lichty, President

Ponderosa Hills is an estate residential subdivision just outside of Parker, Colorado. The subdivision is at the north end of the Black Forest.



This graphic shows the Ponderosa Hills area and the incidence of wildfires over the period from 2009 to 2013. From the graphic you can also see that the subdivision does have a significant amount of Ponderosa Pine growth.

Each year the Ponderosa Hills Civic Association works with its members to provide a Dumpster Day. On this day each summer we encourage our members to bring trash, slash, recycling and donation items. We fill

on average 4 large dumpsters, fill 2 dump trucks with slash that has been chipped and recycle at least two trailers of metal items.

In 2013 we started a project with the South Metro Fire Rescue Authority to bring their Life Safety Educator to our annual meeting and to have him review properties in the community for fire preparedness and provide suggestions on improving the survivability of the properties. These activities have resulted in many of the properties limbing up their trees, cutting or mowing the scrub oak and grass meadow areas, and removing combustibles like wood piles and junipers bushes form proximity to the structures.

We continued our activities with the South Metro Fire Rescue Authority in 2014 with a pancake breakfast where several members of the SMFRA spoke with residents and passed out Ready Set Go materials. We discussed plans for a subdivision-wide fire drill which we are hoping to implement in the fall of 2015 and will include procedures for evacuating residents and their animals. Ponderosa Hills have many residents with horses and domesticated livestock.

This year, 2015 we are volunteering properties in the community that will be used by the SMFRA in their Wild Land Refresher Training over a 2 week period in April.

The NFPA grant if awarded to the Ponderosa Hills Civic Association would be used to sponsor a community meeting where the SMFRA could review the lessons learned from their April training in our community and to establish a fund.

Grant money would be used to establish an assistance fund with additional donations from residents to be requested. The Board of the

Ponderosa Hills Civic Association would accept requests for fund monies and work with residents to identify the needed fire prevention activities to be paid for by the fund.

The Ponderosa Hills subdivision was established in the 1970s and several of the original owners are still in residence. Advanced age and a fixed income have resulted in several of the properties falling into an unkept state. Any property that does not adhere to the fire reduction recommendations puts the entire subdivision at increased risk. A fund to assist these challenged residents in hiring the work to be completed will benefit the entire community.

The meeting agenda would include:

- Review the April Wild Land Training- lessons learned
- Refresher on the steps that can be taken to reduce wild fire risk in our community, such as limbing trees
- Appointment slots offered for a property evaluation by the Life Safety Educator
- Education on animal evacuation
- Review of plans for a subdivision wide fire drill in coordination with SMFR and the county Sheriff's office to be conducted fall of 2015
- Dissemination of Ready Set Go and Animal Evacuation materials
- The introduction of a fund to assist older or financially challenged property owners in Ponderosa Hills with the fire reduction activities needed on their properties
- The offer of assistance for individual property owners in applying for a Douglas County Fuels Mitigation Grant

We thank you for considering us as possible recipients of this grant.

Ponderosa Hills Civic Association

Appendix C, Images of Mitigation Projects

2017 Wildfire Preparedness Day



2015 Picnic and Slash Collection Day



Appendix D: Images from wildfires in Ponderosa Hills

2016 Antelope Trail Fire (Eric Hurst)





Wildfire season stretches throughout the year in Colorado, including our part of Douglas County, which means that both firefighters and residents must be aware of the threat and ready for it at all times.

This brochure will help you prepare for the September 27, 2014, Evacuation Drill. You need to do three things:

- Register for CodeRed
- Prepare your family for evacuation
- Register to participate in the drill

An evacuation drill is one component of your neighborhood mitigation plan and South Metro Fire Rescue's "Ready, Set, Go!" program.

It's not a question of *if* another wildfire will occur in Ponderosa Hills; the question is **when**. South Metro Fire Rescue, Douglas County Office of Emergency Management, Douglas County Sheriff's Office and Parker Police Department are all important partners for safety, but the most important person protecting your life and property is you.

With advance planning and preparation, you can dramatically increase your safety and prevent damage to your property.

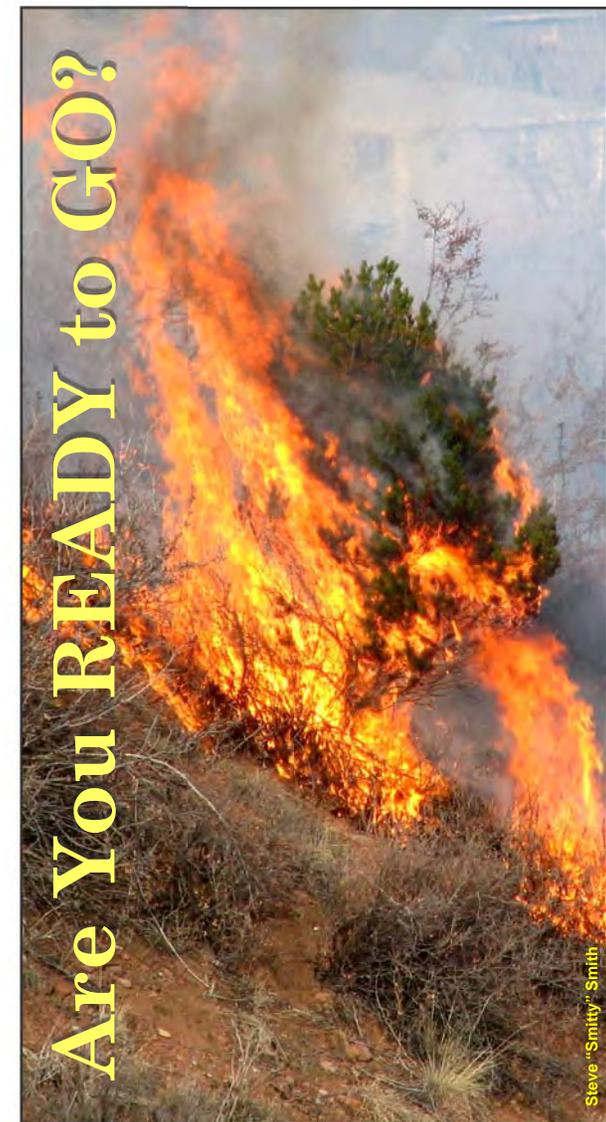
For information on wildfire preparedness, visit:



www.southmetro.org



dcsheriff.net



PONDEROSA HILLS

September 2014



Prepare Your Family

Evacuations can occur throughout the year and at any time during the day. Your family should set meeting places and create a communications plan so everyone knows where to meet after an evacuation.

Some family members may need assistance leaving their homes because they have medical or other needs. Consider using the Douglas County Special Needs Registration via dcsheriff.net.

What will your children do if they are home alone or with a babysitter when the evacuation order occurs? Plan now to avoid difficult situations in the future.

Douglas County also has resources to assist with pet and livestock evacuations. Visit dcsheriff.net.



CodeRED, is a high-speed telephone emergency notification service that allows public safety agencies to deliver pre-recorded information to targeted areas within the county. The system may be implemented for a lost child (Amber Alert), wildfires or other incidents in which residents would need to take appropriate steps to safeguard life and property.

Although many landline telephones are automatically registered with the database, you should go online and register your own personal information. By doing so, you will ensure the data pertaining to you and your home is as accurate as possible.

Register today at
dcsheriff.net



Participate in the Drill

This evacuation drill will test:

- Livestock loading
- Residents' ability to gather important belongings (Pets, Pills, Papers, Pictures)
- Law enforcement road blocks
- Fire department response
- County emergency management
- Shelter establishment
- County evacuation coordination
- CodeRED notifications

The value of an evacuation drill increases as more residents participate.

To participate in this drill, email board@ponderosahills.com with your name, address, and one phone number with which you'd like to be notified.