Stonewall Fire Protection District

Community Wildfire Protection Plan November 2014



Stonewall Fire Protection District COMMUNITY WILDFIRE PROTECTION PLAN

November 2014

Prepared by the Stonewall Fire Protection District

With special appreciation and acknowledgements to Ouray County and Log Hill Mesa Fire Protection District and the Western Region Wildfire Council who allowed us to model our CWPP after theirs; the El Paso County Sheriff's Office who allowed us to use their *Ready, Set, Go! Emergency Preparedness Checklist;* the BarNI Ranch and the City of Trinidad who provided initial and critical funding; the Purgatoire Watershed Partnership and AmeriCorps VISTA (Elisa Dawson) who provided invaluable plan assistance; the Colorado State Forest Service (C.K. Morey and Mark Loveall) who assisted with every aspect of the analysis and creation of this document; and last but not least the following donors, without whom the project would not have been possible:

BarNI Ranch Citv of Trinidad Madrid Canyon Landowners Association North Fork Landowners Association Rancho La Garita Landowners Association Wet Canyon Landowners Association Pioneer Natural Resources, Inc. Spanish Peaks-Purgatoire River Conservation District Stonewall Country Club San Pablo Canyon Ranches **XTO Energy** Billy and Jean Barth James and Chong Meyer Tracy and Amy Dahl James and Eleanor Vigil Stella Barrett and Gary Niles **TJ Gorden-Ross**

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Project Coordinator Penny Bieber

Cover photo courtesy of Shopping Bag, Stonewall, Colorado.

SIGNATURE PAGE

The following entities participated in the development of this plan and mutually agree on its contents.

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C. K. Morey, CSFS	Date
Mark Loveall, CSFS	Date
Gil Ramirez, Trinidad Sr. Water Treatment Plant Oper.	Date
Bert Nale, La Garita Landowners Association, SFPD	Date
Steven Hanks, BarNI Ranch Manager	Date
James Vigil, CO Parks and Wildlife Commissioner	Date
Elisa Dawson, Purgatoire Watershed Partnership	Date
Penny Bieber, Project Coordinator	Date

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INTRODUCTION

The Stonewall Fire Protection District (SFPD) Community Wildfire Protection Plan is the result of more than eight months of planning, field data gathering and analysis. It has been prepared by a community-wide collaboration that includes the SFPD, the City of Trinidad, Las Animas County, the Colorado State Forest Service, area landowners and Land Owner Associations, the Purgatoire Watershed Partnership and a variety of state and federal agencies and interested parties.

The Stonewall Fire Protection District Community Wildfire Protection Plan (CWPP) is a response to the Healthy Forests Restoration Act of 2003 (HFRA). This legislation established unprecedented incentives for communities to develop comprehensive wildfire protection plans in a collaborative, inclusive process. The legislation also directs the Departments of Interior and Agriculture to address local community priorities in fuels reduction treatments on both federal and non-federal lands.

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. Priority areas include the wildland-urban interface (WUI), municipal watersheds and other local values at risk, areas impacted by wind-throw or insect or disease epidemics, and critical wildlife habitat that would be negatively impacted by a catastrophic wildfire.

The HFRA requires that the CWPP:

- Identify and prioritize areas for fuel reduction treatments
- Recommend treatments that will protect communities and infrastructure
- Recommend measures that homeowners and communities can take to reduce the ignitability of structures and reduce the risk of wildland fire
- Be developed in collaboration with stakeholders

GOALS AND OUTCOMES

Goals for the CWPP project include:

- Enhance the safety of residents and responders
- Increase organizational and interagency readiness
- Reduce the risk of catastrophic wildland fires

Desired outcomes for the plan include:

- An improved community awareness of wildfire risks and mitigation options
- Development of a user-friendly set of resources for homeowners and communities to use to reduce wildfire risk
- A prioritized action list of mitigation projects to reduce wildfire risk in the District
- A reduction in the risk to watersheds and drinking water supplies
- Development of a comprehensive information tool that can be easily made available to Incident Management Teams or other emergency responders.
- Development of an exemplary plan, education tool and mitigation program that will serve as a pilot project for development of other Community Wildfire Protection Plans in the region

HOW TO USE THIS PLAN

Successful wildfire risk mitigation begins with individual landowners, but landowners associations and other community organizations and entities also have a role to play. Individuals must work to reduce home ignitability and create defensible space. Community-wide collaborative efforts are required to improve ingress and egress, provide signage, develop water resources, and create evacuation plans. This CWPP identifies efforts required of everyone with an interest in the protection of our communities.

Section One of the plan is an overview of the Stonewall Fire Protection District. It provides a description of the district and identifies the risk factors the community faces. Section One also identifies the community values we seek to protect and the preparedness and capabilities of the Stonewall Fire Protection District.

Section Two identifies and evaluates 41 Wildland-Urban Interface (WUI) (communities) and 14 Areas of Special Interest. Each WUI write-up includes information about typical lot sizes or acreage, structure risk assessments, area fuel types, expected fire behavior, and risk mitigation recommendations and can serve as a stand-alone plan. Countywide mitigation recommendations are also identified.

Most subdivisions in the SFPD are treated as individual WUIs in this first CWPP. As communities come together to complete recommendations, and community leadership infrastructure is developed, it is anticipated that future revisions of the CWPP will identify fewer WUIs—combining subdivisions and areas with similar ecology, vegetation and terrain and shared boundaries. Once individual communities are successful in achieving initial mitigation efforts, the likelihood that large-scale landscape treatment projects involving multiple communities and landowners can be accomplished will improve.

Conclusions and Next Steps provides a summary of recommendations identified and an action plan for the Stonewall Fire Protection District. Potential funding sources for community plan development and mitigation efforts are also identified.

Plan Appendixes detail general information, the scientific and/or technical information used to generate the Plan and provide homeowners and community leaders extensive information on creating defensible space and improving home ignitability risks. Additional resources are also identified.

The Plan as a Living Document

The Stonewall CWPP is a planning tool. As such, it will help to identify and guide mitigation efforts within the district. Its overall value, however, is directly related to the ongoing evaluation and improvement of the plan in the future. Future plans will re-evaluate risks as conditions change and as mitigation efforts are completed. The plan should be revisited at least on an annual basis, and should be formally updated every five years. As a living document, the plan relies on the input of all stakeholders. We invite you to be involved in that process.

GLOSSARY

The following definitions apply to terms used in the Stonewall Fire Protection District Community Wildfire Protection Plan or referenced in supporting documents.

1-hour time lag fuels: Grasses, litter and duff; <1/4 inch in diameter

10-hour time lag fuels: Twigs and small stems; 1/4 inch to 1 inch in diameter

100-hour time lag fuels: Branches; 1 to 3 inches in diameter

1000-hour time lag fuels: Large stems and branches; >3 inches in diameter

Active Crown Fire: This is a crown fire in which the entire fuel complex – all fuel strata – become involved, but the crowning phase remains dependent on heat released from the surface fuel strata for continued spread (also called a Running Crown Fire or Continuous Crown Fire).

Chain: A chain is a unit of measurement that equals 66 feet. It is normally used as the measure of the rate of spread of wildfires or as a production rate for wildland fire apparatus or crews (chains per hour).

Chimney: A steep and narrow drainage that has the potential to funnel winds and greatly increase fire behavior. Due to this increase, the tops of chimneys are especially hazardous areas.

Community Wildfire Risk Assessment: The wildfire risk analysis is the foundation for the SFPD CWPP. It is based on research of the Home Ignition Zone concept

developed by Jack Cohen at the *Fire Science Lab* in Missoula, Montana and the latest research and findings from the *Institute for Business and Home Safety* (IBHA) on factors that play into a home's survivability during a wildfire.

Crown Fire (Crowning): The movement of fire through the crowns of trees or shrubs; may or may not be independent of the surface fire.

Defensible Space: An area around a structure where fuels and vegetation are modified, cleared or reduced to slow the spread of wildfire toward or from the structure. The design and distance of the defensible space is based on fuels, topography, and the design/materials used in the construction of the structure.

Extended Defensible Space (also known as Zone 2 and 3): This is a defensible space area where treatment is continued beyond the minimum boundary. These zones focus on forest management with fuels reduction being a secondary consideration.

Fine Fuels: Fuels that are less than 1/4-inch in diameter, such as grass, leaves, draped pine needles, fern, tree moss, and some kinds of slash which, when dry, ignite readily and are consumed rapidly.

Fire Adapted Community: A Fire Adapted Community takes responsibility for its wildfire risk. Actions address resident safety, homes, neighborhoods, businesses and infrastructure, forests, parks, open spaces, and other community assets. The more actions a community takes, the more fire adapted it becomes. See: http://www.fireadapted.org/resources/what-is-a-fire-adapted-community.aspx

Fire Behavior Potential: The expected severity of a wildland fire expressed as the rate of spread, the level of crown fire activity, and flame length. This is derived from fire behavior modeling programs using the following inputs: fuels, canopy cover, historical weather averages, elevation, slope, and aspect.

Fire Hazard: Given an ignition, the likelihood and severity of Fire Outcomes (Fire Effects) that result in damage to people, property, and/or the environment. The hazard rating is derived from the Community Assessment and the Fire Behavior Potential.

Fireline Intensity: The rate of heat energy related during combustion per unit length of fire front. It is usually expressed in BTUs/second/foot.

Fire Mitigation: Any action designed to decrease the likelihood of an ignition, reduce Fire Behavior Potential, or to protect property from the impact of undesirable Fire Outcomes.

Fire Outcomes, Fire Effects: This is a description of the expected effects of a wildfire on people, property and/or the environment, based on the Fire Behavior Potential and physical presence of Values at Risk. Outcomes can be desirable as well as undesirable.

Fire Risk: The probability that an ignition will occur in an area with potential for damaging effects to people, property, and/or the environment. Risk is based primarily on historical ignitions data.

FireWise Community: National Fire Protection Association's Firewise Communities Program encourages local solutions for safety by involving homeowners in taking individual responsibility for preparing their homes from the risk of wildfire. Firewise is a key component of Fire Adapted Communities – a collaborative approach that connects all those who play a role in wildfire education, planning and action with comprehensive resources to help reduce risk.

Flame Length: The distance between the flame tip and the midpoint of the flame depth at the base of the flame (generally the ground surface)—an indicator of fire intensity.

Fuelbreak: A natural or constructed discontinuity in a fuel profile that is used to isolate, stop, or reduce the spread of fire. Fuelbreaks may also make retardant lines more effective and serve as control lines for fire suppression actions. Fuelbreaks in the WUI are designed to limit the spread and intensity of crown fire activity.

Incident Command System (ICS): ICS is a standardized all-hazards management approach that establishes common procedures for responding to and managing emergency incidents; establishes a common communications protocol; and enables a coordinated response among multiple agencies and/or jurisdictions.

National Fire Incident Reporting System (NFIRS): A national database of fire incident information created by the National Fire Data Center of the United States Fire Administration. NFIRS is designed to help State and local governments gather fire incident data to develop fire reporting and analysis capabilities and to help assess and address fire danger in the United States. State and local participation in NFIRS is voluntary.

Roadside thinning: The primary purposes of roadside thinnings are to increase the ability of firefighters to successfully use the existing road as a control line in the event of a fire, to improve evacuation of civilian and fire traffic, and to reduce the fire impacts along the road.

Dry Hydrant: A fixed pipe attached to a water source located at an easily accessible point that allows firefighters to draft from the water source more efficiently.

Surface Fire: A fire that burns in the surface litter, debris, and small vegetation on the ground.

Values at Risk: People, property, ecological elements, and other human and intrinsic values within the project area. Values at Risk are identified by inhabitants as important to the way of life in the study area, and are particularly susceptible to damage from undesirable fire outcomes.

WUI (Wildland Urban Interface): The line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels.

THE PLANNING PROCESS

The Stonewall Fire Protection District Fire Chief worked for two years to build the coalition required to undertake and complete a Community Wildfire Protection Plan. That effort resulted in an initial meeting of area stakeholders on February 12, 2014 at the BarNi Ranch in Stonewall. The following table lists participants in that initial meeting.

Name	Title	Organization
Loyd Holliman	Fire Chief	Stonewall Fire Protection District
Jim Vigil	Commissioner	CO Parks and Wildlife
Mark Loveall	Forester	CO State Forest Service
Gilbert Ramirez	Senior Water Treatment Plant Operator	City of Trinidad
Stephan Hanks	Manager	BarNI Ranch
Penny Bieber	Project Coordinator	None
Bert Nale	Landowner, Firefighter	Rancho La Garita LOA, SFPD
C.K. Morey	Forester	CO State Forest Service
Tom Perry	President	Culebra Range Coalition
Louis Feinberg	Planner	City of Trinidad
Anthony Abeyta	Commissioner	Las Animas County
Rob Cabot	Landowner	BarNI Ranch
Emlen Cabot	Landowner	BarNI Ranch
Levi Montoya	District Conservationist	NRCS
Kim Chavez	HR/Emergency Manager	Las Animas County
Paul Branson	CWPP Plan Coordinator	La Veta FPD

Initial Organizing Group

Bob Holder	District Wildlife Manager	CO Parks and Wildlife
Tracy Dahl	Landowner	North Fork Ranches LOA

Participants decided to create a core group of individuals to develop the CWPP and a list of interested individuals was established. The selected Core Planning Group consisted of eight individuals representing six stakeholder organizations and a Project Coordinator selected to organize the effort. The selected individuals and organizations are detailed in the **Core Planning Group** chart.

Core Planning Group

Name	Title	Organization
Loyd Holliman	Fire Chief	Stonewall Fire Protection District
Jim Vigil	Commissioner	CO Parks and Wildlife
Mark Loveall	Forester	CO State Forest Service
Gilbert Ramirez	Water Division	City of Trinidad
Stephan Hanks	Manager	BarNI Ranch
Penny Bieber	Project Coordinator	None
Bert Nale	Landowner,	Rancho La Garita LOA, SFPD
	Firefighter	
C.K. Morey	Forester	CO State Forest Service

The Core Planning Group met nine times between February 22, 2014 and October 17th, 2014 at the Stonewall Fire Protection District Stonewall Fire Station. During those meetings the Core Group:

- Developed a project budget and funding stream
- Developed an assessment plan and protocols
- Developed a firefighter assessment training program
- Developed a community education strategy
- Reviewed existing CWP Plans
- Reviewed the SFPD CWPP draft plan

Relationship with Other Planning Efforts

The Stonewall Fire Protection District Community Wildfire Protection Plan builds upon other planning efforts in the community. These efforts include:

- Las Animas County Annual Operating Plan
- XTO Emergency Plan
- Pioneer Natural Resources, Inc Emergency Plan
- Las Animas County Emergency Operating Plan--under development
- Trinidad Source Water Protection Plan–under development

Atlas Energy Inc. Raton Basin/New Mexico Office Emergency Response and Evacuation
Plan

The SFPD CWPP serves as a pilot project for other Fire Protection Districts and other communities within Las Animas County.

Stakeholder and Public Involvement

Core Group committee members met with seven area Landowners Associations to explain the scope of the CWPP project and ask for public input. Project goals and benefits and assessment methodology were also detailed. A Question and Answer session followed, and attendees were given packets containing an overview of the project and wildfire risk mitigation information.

Date	Landowners Association	# of Participants (Approximate)
May 24, 2014	Primero Ranches	30
May 25, 2014	Rancho La Garita	15
June 7, 2014	Madrid Canyon	25
July 5, 2014	Cuchara Pass Ranches	30
July 6, 2014	Stonewall Country Club	20
July 12, 2014	Wet Canyon	35
July 19, 2014	San Pablo Canyon	30
August 24, 2014	La Garita	25

Landowner's Association Meetings

Two public meetings were held at the Primero Community Center. The first meeting was held on June 19, 2014, just prior to beginning structure assessments. Post cards informing area landowners about the meeting and the assessments were sent to every registered landowner in the district two weeks prior to the meeting. The Trinidad Chronicle News also published two press releases regarding the CWPP planning and announced the meeting in the second press release.

The Core Group, the firefighters assisting with the assessment, and numerous area stakeholders presented at the first public meeting. Discussion of project goals, assessment methodology, funding requirements, and opportunities for creating mitigation plans were outlined. Public input was encouraged, and a Question and Answer session concluded the meeting. Several participants asked to be included in further meetings and their names were added to the group lists.

The Draft CWPP was announced with a press release published by the Trinidad Chronicle News and notice of the release of the draft and of a public meeting was sent to every registered landowner in the district via post card. The draft CWPP was made available online via the SFPD website.

The second Public Information Meeting was held on November 6th, 2014 with xx participants. The draft plan was presented at this meeting, and the public was invited to provide written comments online or at the meeting.

The following table summarizes the two public meetings.

Date	Meeting	# of Attend ees	Presenters
June 19, 2014	Primero Community Center	62	Project Coordinator, SFPD Fire Chief, Firefighters (6), Purgatoire Watershed Partnership, City of Trinidad Water Department, NRCS, CSFS, Core Committee Members
November 6, 2014	Primero Community Center	bajillio ns	Project Coordinator, SFPD Fire Chief, Firefighters (6), Purgatoire Watershed Partnership, City of Trinidad Water Department, NRCS, CSFS, Core Committee Members, Others

Public Information Meetings

Final Stakeholder Meeting

A final stakeholder meeting was held on October 29th, 2014 at the BarNI Ranch. The draft plan was submitted for review and comment. Written comments were accepted, and further comments were accepted online. The table on the following page details attendance.

Name	Title	Organization
Jim Vigil	Commissioner	CO Parks and Wildlife
Mark Loveall	Forester	CO State Forest Service
Gilbert Ramirez	Senior Water Treatment Plant Operator	City of Trinidad
Stephan Hanks	Manager	BarNI Ranch
Penny Bieber	Project Coordinator	SFPD
Bert Nale	Landowner, Firefighter	Rancho La Garita LOA, SFPD
Loyd Holliman	Fire Chief	Stonewall Fire Protection District
Levi Montoya	District Conservationist	NRCS
Kim Chavez	HR/Emergency Management	Las Animas County
Elisa Dawson	AmeriCorps VISTA	Purgatoire Watershed Partnership
Walter Williams	Board	NF Ranches
Tracy Dahl	Landowner	NF Ranches LOA
Ed Skerjanec	Fire Mitigation Specialist	BLM
Paula Ozzello	Board	PEP,So. CO Environmental Council
Kathy Hill	Board	PWP, So. CO Environmental Council
Aaron Swallow	Environmental Manager	Tercio Ranch
Michelle Williams	Landowner	North Fork Ranch
Rob Cabot		BarNI
Bob Gill	Operations Superintendent	Pioneer Natural Resources
Leeann Fabec	Administrator	Las Animas County
Mack Louden	Commissioner	Las Animas County
Roland McGuire	Area Wildlife Manager	Co Parks and Wildlife
Mike Trujillo	Environmental Manager	Trinchera Ranch

Public Education

Initial public education efforts consisted of press releases regarding the CWPP in the Trinidad Chronicle News. In addition, during the assessment of each accessible structure in the district, a complete packet of information was distributed. This packet was also made available at each public and landowners association meeting. The contents of the packet are listed below.

Educational Information in Distributed Packets

Title	Publisher
Stonewall FPD CWPP Fact Sheet	Stonewall FPD Core Group
Protecting Your Home From Wildfire: Creating Wildfire-Defensible Zones	Colorado State Forest Service
FireWise Construction: Site Design & Building Materials	Colorado State Forest Service
Communities Compatible with Nature	Firewise Communities and National Fire Protection Association
Firewise Guide to Landscape and Construction	Firewise Communities
Becoming a Recognized Firewise Community/USA	Firewise Communities

Additional information was provided at each homeowners association meeting and public meeting.

Additional Education Materials Provided

Title	Publisher
More Resources	Developed by Core Group
Ready, Set, Go! Evacuation Checklist	International Association of Fire Chiefs

SECTION ONE

STONEWALL FIRE PROTECTION DISTRICT

The Stonewall Volunteer Fire Department was formed in 1949, and became a Fire Protection District in 1999. Since its formation in April 1999, the Stonewall Fire Protection District (SFPD) has taken a very active stance on wildfire and the protection of its residents. The Department is run on an almost exclusive volunteer basis, with the exception of the Chief and administrative staff. Currently, the department has approximately 50 dedicated volunteer firefighters providing year-round protection to the Districts' approximately 4,000 residents.

Stonewall Fire Protection District is organized and equipped to fight fires in the wildland urban interface. The Department handles both structure and wildland fires within the district. SFPD is also equipped to assist neighboring districts with incidents through Mutual Aid Agreements.

Stonewall Fire Protection District is commanded by the Fire Chief who is the primary incident commander on most incidents and is responsible for the safe operation of all fire scenes. An Assistant Fire Chief supports the Fire Chief and fills in during the Chief's absence and during complex fire assignments.

The Stonewall Fire Protection District is located in the western portion of Las Animas County, and provides services in an area of 547 square miles of Wildland/Urban Interface.

The SFPD consists of foothill terrain in the eastern end of the district to mountainous terrain in the western end. Altitudes range from of 6,000 feet in the foothills to 14,000 feet along the eastern slope of the Culebra Mountains. The District is bounded by New Mexico on the south, Costilla County to the west, Huerfano County and La Veta Fire Protection District on the northwest, the Spanish Peaks/Boncarbo Fire Protection District on the northeast, and the Fishers Peak Fire Protection District on the east.

The SFPD incorporates land with various ownership as summarized below:

Land Ownership	Acres	Percentage
Private	268,507	79.22%
BLM	12,972	3.82%
USFS	13,809	4.07%
Colorado State Land Board	4,149	1.22%
Colorado Parks and Wildlife	37,999	10.82%
City of Trinidad	2,864	0.84%

State Hwy 12 provides the primary paved access in the District. Several canyons also have paved roads for a few miles off the Hwy 12 corridor. Large portions of roads within the district are county-maintained gravel roads of varying quality. These roads provide access to the various subdivisions and neighborhoods. Road quality within subdivisions ranges from good to poor. Driveway quality varies dramatically.

VALUES AT RISK

Most of the Stonewall Fire Protection District is at some risk of wildland fire. Recent large fires in the state and across the west have focused concern and awareness of the need to mitigate for and prepare for wildland fires.

The many subdivisions and communities in the District attest to the public's desire to live in the area. The District's natural beauty, abundant wildlife, clean air and water and recreational opportunities have resulted in numerous Wildland- Urban-Interface areas (WUIs) in the area, each at some risk of wildland fires.

In addition to 41 plotted WUI subdivisions or WUI communities, 11 Areas of Special Interest exist in the District. The table below lists those areas.

Name	Туре
Adobe Ranch	Subdivision
Arrowhead Ranchettes	Subdivision
Aspen Rose Ranch	Subdivision
BarNI Headquarters	WUI area
Big Pine Ranch	Subdivision
Cielo Grande	Subdivision
Cimarron - Pine Valley	Subdivision
Cimarron Ranch	Subdivision
Colorado Mountain Lake Estates	Subdivision
Cougar Ridge	Subdivision
Cuchara Pass Ranch	Subdivision
Eagles Landing/ Eagle Mountain Estates	Subdivision
East Hwy 12 Corridor	WUI area
Glen Aspen	Subdivision
Hwy 12 South District	WUI area
Long Canyon Ranch (Madrid Canyon)	Subdivision

WUI and Special Areas of Interest in SFPD

Long Canyon Ranch Phase 2 (Widow Woman)	Subdivision
North Fork Ranch	Subdivision
North Lake/Camp Salvation	WUI area
Picketwire	WUI area
Pine Ridge Hideaway	Subdivision
Primero	WUI area
Primero Ranch	Subdivision
Rainbow Heights	Subdivision
Rancho Escondido	Subdivision
Rancho La Garita	Subdivision
River Ranch Long Canyon	Subdivision
Robinson Tracts	Subdivision
San Juan Plaza	WUI area
San Pablo Canyon Ranch	Subdivision
Segundo/Valdez	WUI area
Shafers Estates/Whiskey Creek	Subdivision
Stonewall	WUI area
Timber Ridge	Subdivision
Torres/San Francisco Pass	WUI area
Trinidad Lake Estates	Subdivision
Vigil Plaza	Subdivision
West District	WUI area
Weston	WUI area
Wet Canyon Ranch	Subdivision
Zamora Plaza	Subdivision
Bosque del Oso State Wildlife Area	Area of Special Interest
Burro Canyon Electric Sub-station	Area of Special Interest
Monument Lake	Area of Special Interest
New Elk Coal Mine	Area of Special Interest
North Lake State Wildlife Area	Area of Special Interest
Pioneer Natural Resources complex	Area of Special Interest
Purgatoire Campground	Area of Special Interest
Robinson Sawmill	Area of Special Interest
Spanish Peaks Wildlife Area	Area of Special Interest
Trinidad Water Treatment Plant	Area of Special Interest
XTO Headquarters	Area of Special Interest

Life, Safety and Homes

Most of SFPD is part of the Wildland Urban Interface, and wildland fires are a somewhat regular occurrence for the District's residents. The main concern is the personal safety of the residents of the District. The loss of their homes and property value losses are of

secondary concern. The majority of homes within the study area have roofs, decks and siding that are made of a mix of combustible materials.

Some communities have begun to address wildland fire risks but no fire protection plans exist at this time.

Commerce and Infrastructure Economic Values

Wildland fires can directly impact an area's economy. A majority of the District consists of large ranches, multi-acre residential developments, small towns and unincorporated communities. Numerous residents return during the summer months, the primary wildfire season in Colorado. Economic losses will occur if residents are unable to work due to wildfires. Additional economic suffering could result because the area is served by only one major road--State Highway 12, which could be closed in a wildfire.

The Stonewall Fire Protection District encompasses significant coal-bed-methane gas fields operated by Pioneer Natural Resources, Inc., XTO Energy, Inc. and Atlas Energy, Inc. Pioneer Natural Resources, Inc. has approximately 2,000 wells and 8 compressor sites in the area, a majority of which are located within the District. Atlas Energy, Inc. operates 133 wells with 2 compressor sites, all of which are located within the District. XTO Energy, Inc. also has coal-bed-methane wells and compressor sites located within the SFPD. In all, approximately 2,900 gas wells and 15 compressor sites are located within the District. In addition to wells and compressor sites, there is above-ground and below-ground infrastructure consisting of valves and piping for gas transport.

A good mutual relationship exists between the District and the gas companies; companies have provided manpower and water resources in the past, and the Fire District has used well sites as staging areas/safety zones for fire suppression efforts. Well sites and compressor stations and other facilities are generally very well mitigated to reduce wildfire risk, and all companies have emergency plans in place.

Critical Infrastructure

Critical infrastructure in SFPD includes water supply systems, telecommunication towers, power infrastructure, coal-bed-methane natural gas wells, compressor stations and transmission lines, and a school. Wildfires in the area can damage power lines, leading to power outages during times when power is needed most. Power lines can also be sources of wildfire ignitions when knocked down by wind or other means.

Environmental Resources

The District's natural resources are one of the main reasons residents live in the area and why tourists come to visit.

The City of Trinidad's watershed is entirely located within the SFPD. That watershed provides drinking water for the City of Trinidad and numerous other small communities. The City of Trinidad partnered with the SFPD to assess watershed infrastructure elements and the SFPD and Purgatoire Watershed Partnership are collaborating with the City to create a Trinidad Source Water Protection Plan (SWAP). That plan will be completed by December 31st, 2014, and will then be added as an addendum to this CWPP.

In addition to the Trinidad watershed, the Bosque del Oso, North Lake and Spanish Peaks Wildlife Areas as well as numerous other areas critical to local wildlife are located in the SFPD. Taking action to prevent catastrophic wildfire within these areas is critical for maintaining biodiversity, ecosystem function, and watershed health.

Impacts of wildfires in the district can include soil degradation, increased soil erosion, changes in vegetation composition, loss of vegetation, destruction of animal habitats and death of animals, increased weed invasion, and degradation of water quality.

CURRENT RISK SITUATION

This section examines the current wildland fire risk in the Stonewall Fire Protection District based on wildfire history and past or planned fire treatments.

Wildfire hazard ratings for SFPD CWPP communities range from low in some areas along the Highway 12 corridor to extreme in the steep mountain areas of the west in the district. This assessment is based on an analysis of multiple factors, including the district's wildland fire history, and information provided by experts and the Colorado State Forest Service CO-Wildfire Risk Assessment Portal. It should be noted that incomplete fire occurrence data results in understated wildland fire risk. The following information represents the most accurate information available.

Historic Fires

Most fires in the SFPD are small (less than 10 acres) and lightning caused. However, even small fires can present a threat to life, safety, and property. This is based on the availability of fuel, both vegetative and man-made; the direct Wildland Urban Interface of subdivisions bordering fuel beds; community infrastructure, including access/egress routes, as well as weather and drought conditions. Wildfire history in the SFPD since 2000 is summarized below:

Year	Quantity of Fires	Size of Fire	Cause of Fire	
2000	8	1-7 acres	lightning	
	2	10 acre	lightning	
	2	25 acre	lightning	
	1	35 acre	lightning	
	1	250 acre	human caused (slash pile embers)	
	1	400 acre	human caused (slash pile embers)	
Total in 2000	15	510 acres		
2001	19	1-7 acres	lightning	
	3	20 acre	lightning	
	1	124 acre	human caused (slash pile embers)	
	1	300 acre		
Total in 2001	24	510 acres		
2002	19	1-4 acres	lightning	
	1	27,500 acre	human caused	
		(Spring Fire)		
Total in 2002	20	27,528 acres		
2003	19	1-5 acres	lightning	
	1	50 acre	lightning	
Total in 2003	20	79 acres		
2004	2	1 acre	lightning	
	1	80 acre	human caused (slash pile embers)	
Total in 2004	3	82 acres		
2005	12	1-2 acres	lightning	
Trailing	1	820 acre	human caused	
I otal in 2005	13	825 acres		
2006	27	1-5 acres	26 lightning, 1 human caused	
1 Otal In 2006	21	35 acres	lishtaias	
2007	11		lightning	
Total in 2007	12	60 acre	lightning	
2009	17		16 lightning 1 human coursed	
2000	1	1-2 dures	Power line	
Total in 2008	18		Fower-line	
2000	13		lightning	
2009	13		lightning	
Total in 2009	14	23 5 acres		
2010	11	1 acre	1 human caused 10 lightning	
2010	1	5 100 acre	human caused	
Total in 2010	12	5.111 acres		
2011	16	1-2 acres	15 lightning 1 human caused	
Total in 2011	16	17 acres		
2012	16	1-2 acre	14 lightning, 2 human caused	
Total in 2012	16	17 acres	g	
2013	19	1 acre	1 human caused 18 lightning	
	1	11 acre	lightning	
Total in 2013	20	30 acres		
2014 (as of	23	1-2 acres	20 lightning, 2 power lines, 1 human	
September19,			caused	
2014)				
Total	23	27 acres		
Total Fires from	253 fires	34,996.5 acres		
2000-Sept. 2014				

According to the available data, a total of 253 ignitions were reported in the SFPD between January 2000, and September 2014. Of these ignitions, lightning caused 236, downed power lines caused three and 14 fires were human caused. Most fires were one acre or less. However, the Spring Fire consumed 27,500 acres in 2002.

Larger fires have occurred outside the Stonewall Fire District over the last few years. In 2011 the Track fire burned 27,792 on the New Mexico/Colorado border east of the SFPD. The Track fire was human caused. In 2013 the East Peak fire burned 13,572 acres north and east of the SFPD. Lightening caused the East Peak fire.

Fire Behavior Assessment

Fuel Types:

Fuel types are a classification system based on the size and arrangement of combustible material found across the landscape. Most commonly, fuel type is dictated by the type of vegetative cover found within in a particular area. In 1972, Richard Rothermel devised 11 fuel types from which estimates of fire behavior could be predicted. Further work in this area has now expanded to 40 models (Scott and Burgan 2005). The broad fuel categories are non-burnable, grass, grass-shrub, shrub, timber understory, timber litter, and slash-blowdown. Categories are further broken into sub-group models which are based upon the material most likely to carry a fire. Each model comes with an associated range of predicted fire behavior across a range of fuel moisture content and weather conditions.

Richard Rothermel's original fuel modeling efforts may be accessed at: http://www.fs.fed.us/rm/pubs_int/int_rp115.pdf

Joe Scott and Robert Burgan's paper which elaborates on fuel models used in this document may be found at: http://www.fs.fed.us/rm/pubs/rmrs_gtr153.pdf

Suppression Difficulty:

The amount of effort, risks present, the tactics and resources employed in suppression of wildland fires is dictated to a large extent by the current and predicted fire behavior. Other important factors may include resource availability, access, ownership and regulations. During the initial attack phase of a fire, the amount of difficulty suppression forces encounter in traveling to and attacking the fire is an important determinant of whether the fire will be quickly brought under control or rage out of control causing great expense and loss.

Two measures of fire behavior influenced by fuels present, weather and topography are Rate of Spread and Flame Length. High numbers in either or both of these measures can present substantial suppression difficulties to firefighting forces and merit further discussion.

Flame Length:

The National Wildfire Coordinating Group (NWCG) defines flame length as "The distance between the flame tip and the midpoint of the flame depth at the base of the flame (generally the ground surface), an indicator of fire intensity" (http://www.nwcg.gov/pms/pubs/glossary/f.htm, accessed 10 October 2014). This is a preferred measure over flame height, as under windy conditions or on steep slopes, flames may be tilted at an angle.

Since flame length describes the intensity of a fire, it follows that when lengths are low, firefighters and machinery can get close to flame front, and when lengths are high, these resources must be positioned further away.

A simple chart accessible to firefighters is found on page 79 of the Incident Response Pocket Guide (NWCG PMS 461 NFES 1077, January 2010) and provides decisionmaking tools based on flame lengths:

Tactical Interpretations from Flame Length					
Flame Length	Interpretations				
Less than 4 feet	Fires can generally be attacked at the head or flanks by firefighters using hand tools. Handline should hold fire.				
4 to 8 feet	Fires are too intense for direct attack on the bead with hand tools. Handline cannot be relied on to hold the fire. Dozers, tractor-plows, engines and retardant drops can be effective.				
8 to 11 feet	Fire may present serious control problems: torching, crowning, and spotting. Control efforts at the bead will probably be ineffective.				
Over 11 feet	Crowning, spotting, and major fire runs are probable. Control efforts at the head of the fire are ineffective.				

Rate of Spread:

This measure of a fire is often expressed as a linear function, as in the distance a fire front moves over a period of time. In the fuel modeling equations developed by Scott and Burgan (2005) referred to in this document, the measure is chains (66 feet) per hour.

A fire's rate of spread also factors into the tactics and resources employed to fight it. Very low rates of spread mean that firefighters may be able to safely attack the fire from all directions, while a fire moving very quickly may only be safely attacked from the rear and sides (known as a "flanking attack") while the fire front is allowed to burn to a road or some other obstacle.

Predictions about rates and direction of a fire's spread also influence emergency managers' decisions regarding public safety. Determining areas for immediate evacuation versus those which may only be on alert are one such example.

The knowledge of how fuel types affect both fire intensity of rate of spread is important to landowners, foresters and fire managers as they seek to reduce risks to lives and property from wildfires. Not only do these measures dictate actions during a wildfire, they also must be considered when planning preventative measures, such as hazard reduction thinning or fuel break construction.

CO-WRAP Analysis:

The Colorado Wildfire Risk Assessment Portal (CO-WRAP) was used to generate reports on a variety of wildfire-oriented themes. Developed by the Colorado State Forest Service, it is a tool designed to provide wildfire risk information to both resource managers and any interested citizens. To access CO-WRAP, please go to the following URL: http://www.coloradowildfirerisk.com/

The digital boundaries of the Stonewall Fire Protection District were submitted to CO-WRAP on August 28, 2014 and from this information, a 78-page report was generated. Because CO-WRAP utilizes digital data at a resolution of 30 meter by 30 meter units (approximately 100 ft by 100 ft), smaller-scale differences are sometimes unable to be detected. Therefore where available, reliable local information was favored for inclusion in the CWPP over that generated by CO-WRAP. These limitations notwithstanding, CO-WRAP is proving to be a useful tool for the planning and implementation of wildfire hazard mitigation projects statewide. Maps generated by CO-WRAP showing vegetative cover and fuel type are shown on the following pages. These are useful illustrations of how the forests within the district transition across a large area, and the amounts of each type found within the district. On any given parcel of land, there may be several different forest and fuel types present, which will not be reflected on these maps as per the reasons above. Nor do these maps provide any information as to important forest attributes such as tree density, size, age or overall health. These maps do provide information for landscape-scale project planning, but only on-the-ground examination can provide planners the necessary information for detailed project layout. Vegetation Classifications within the Stonewall Fire Protection District, as reported by CO-WRAP (<u>http://www.coloradowildfirerisk.com</u>, report generated 8/28/14).



Vegetation Classification by Area and Percentages Across the Stonewall Fire Protection District, as reported by CO-WRAP.

Vegetation Class		Acres	Percent	
	Grassland		7,654	2.3%
	Shrubland		33,641	10.0%
	Aspen		38,144	11.3%
	Lodgepole Pine		107	0.0%
	Ponderosa Pine		84,042	24.9%
	Spruce-Fir		14,538	4.3%
	Mixed Conifer		77,273	22.9%
	Oak Shrubland		3,810	1.1%
	Pinyon-Juniper		67,883	20.1%
	Riparian		4,400	1.3%
	Introduced Riparian		0	0.0%
	Agriculture		5,112	1.5%
	Open Water		270	0.1%
	Urban & Community		86	0.0%
		Total	336,959	100.0%

Vegetation Classifications within the Stonewall Fire Protection District, as reported by CO-WRAP (http://www.coloradowildfirerisk.com, report generated 8/28/14).


Vegetation Classification by Area and Percentages Across the Stonewall Fire Protection District, as reported by CO-WRAP.

Surface Fuels	Description	FBPS Fuel Model Set	Acres	Percent
GR 1	Short, Sparse Dry Climate Grass (Dynamic)	2005	18,121	5.3%
GR 2	Low Load, Dry Climate Grass (Dynamic)	2005	5,866	1.7%
GR 3	Low Load, Very Coarse, Humid Climate Grass (Dynamic)	2005	0	0.0%
GR 4	Moderate Load, Dry Climate Grass (Dynamic)	2005	0	0.0%
GS 1	Low Load, Dry Climate Grass-Shrub (Dynamic)	2005	15,638	4.6%
GS 2	Moderate Load, Dry Climate Grass-Shrub (Dynamic)	2005	28,943	8.5%
SH 1	Moderate Load, Humid Climate Grass-Shrub (Dynamic)	2005	23,515	6.9%
SH 2	Moderate Load, Dry Climate Shrub	2005	4,978	1.5%
SH 3	Moderate Load, Humid Climate Timber-Shrub	2005	0	0.0%
SH 5	High Load, Humid Climate Grass-Shrub	2005	0	0.0%
SH 7	Very High Load, Dry Climate Shrub	2005	2,633	0.8%
TU 1	Light Load, Dry Climate Timber-Grass-Shrub	2005	50,360	14.8%
TU 2	Moderate Load, Humid Climate Timber-Shrub	2005	0	0.0%
TU 5	High Load, Conifer Litter	2005	123,546	36.4%
TL1	Low Load, Compact Conifer Litter	2005	1,242	0.4%
TL 2	Low Load, Broadleaf Litter	2005	2	0.0%
TL 3	Moderate Load, Conifer Litter	2005	40,004	11.8%
TL 4	Small Downed Logs	2005	0	0.0%
TL 5	High Load, Conifer Litter	2005	2	0.0%
TL 6	Moderate Load, Broadleaf Litter	2005	78	0.0%
TL 7	Large Downed Logs, Heavy Load Forest Litter	2005	0	0.0%
TL 8	Long-needle Litter	2005	21,770	6.4%
TL 9	Very High Load, Broadleaf Litter	2005	0	0.0%
SB 2	Moderate Load, Activity Fuel	2005	0	0.0%
NB 1	Urban/Developed	2005	586	0.2%
NB 2	Snow/Ice	2005	7	0.0%
NB 3	Agricultural	2005	325	0.1%
NB 8	Open Water	2005	270	0.1%
NB 9	Bare Ground	2005	1,315	0.4%
		Total	339,202	100.0%

Structure risk assessment

The structure risk analysis was undertaken to obtain accurate, scientifically based data regarding structure vulnerability in the District. The analysis is modeled after an assessment undertaken by the Log Hill Mesa Fire Protection District in Ouray County. It is based on the Home Ignition Zone concept developed by Jack Cohen at the Fire Science Lab in Missoula, Montana.

All area residents received notification of the assessment survey and two-man teams completed on-site assessments. Seven trained fire fighters from the Stonewall Fire Protection District completed the assessments. Two attempts were made to access properties with locked gates. A total relative risk score was obtained for each residence and outbuilding that was accessible. The following elements were assessed:

Addressing: Having correct, visible and reflective addressing is a crucial component to any type of emergency response effort. Smokey environments during a wildfire event reduce firefighter visibility. Reflective, contrasting addressing is much easier to see in such conditions.

Ingress/ Egress: Knowing primary and secondary ingress/ egress routes are crucial for successful evacuation. Having more than one way in and out of a neighborhood reduces the risk of becoming trapped by a fast moving wildfire.

Driveway Width: It is important for firefighters to know that they can safely get their equipment in and out of a home's driveway.

Dangerous Topography: These are areas where wildfires can move quickly and increase in intensity. A home's location relative to dangerous topography can largely affect its survivability during a wildfire event. Dangerous topography can have severe impacts on fire behavior over a given landscape. Dangerous Topography is different than overall slope. Examples would be a home at the edge or overlooking a steep slope (40% or greater), narrow canyon or arroyo, which could funnel heat and embers toward the home. Heavy fuel is also a requirement; a house overlooking a cliff with primarily boulders below **would not** constitute dangerous topography in this instance.

Surrounding Fuel: The fuel type and density directly surrounding a home can affect the fire behavior in the particular area. Given varying weather conditions, grassy open meadows tend to be conducive to fast moving, yet low intensity fire behavior, whereas fire in heavily forested environments can be much more intense.

Defensible Space: Defensible space is "the natural and landscaped area around a home or other structure that has been modified to reduce fire hazard." Defensible space "gives [a] home a fighting chance against an approaching wildfire." (CSFS Quick Guide FIRE 2012-1, Protecting Your Home from Wildfire: Creating Wildfire-Defensible Zones) Whether or not a home has adequate defensible space is a factor that firefighters take into consideration when deciding where to allocate resources. It is also important to remember that during a large wildfire event, resources are often limited. Having defensible space can increase the chances of a home's survivability without firefighter intervention.

While there are differing requirements for defensible space based upon distance from a structure (See CSFS Quick Guide FIRE 2012-1, Protecting Your Home from <u>Wildfire: Creating Wildfire-Defensible Zones</u>), it is recommended that defensible space be created to extend more than 100 feet from any given structure. General defensible space guidelines recommend that at least within 100 feet of a structure:

- Trees should be thinned to the point where there is at least 10 feet of space between crowns;
- Tree limbs should be pruned to at least 10 feet high, where applicable;
- Groups or clumps of shrubs and small trees should be spaced 2 ½ times the clump's height away from the nearest clump or single larger tree;
- Ladder fuels (small trees or shrubs growing underneath larger trees) should be eliminated.

Roofing Material: A home's roofing material has been proven to be a primary factor in a home's survivability during wildfire event. Class A, non-combustible roof construction increases a home's survivability, whereas wood shake shingle roofing material increases a home's wildfire risk drastically.

Generally speaking, Class A denotes the highest fire-resistance rating, while Class C denotes the least. Without knowing the construction method and material underneath the roof, it may not possible to determine a rating based on simply an outside view. For example, it is noted that "Conventional mineral reinforced asphalt shingles usually have a Class C rating," but that newer types of fiberglass reinforced asphalt shingles are rated Class A. It is also noted that metal roofing can only achieve a Class A rating only if a gypsum underlayment is installed. (FireWise Construction: Site Design & Building Materials; CSFS 2012).

Siding Material / Building Exterior: Whether a home's siding is made out of combustible material or a non- combustible material also affects survivability. Vinyl/

wood siding is more likely to fail or ignite than a heavy log, stucco or composite siding material. Just as with roofing construction however, invisible underlayment can greatly affect the outside material's fire resistance.

Other Combustibles: Firewood piles, patio or deck furniture, propane tanks and other combustibles near a structure can be factors that compromise a home's resistance to wildfire. Rankings are determined by distance such material is from a structure.

Decking Material: Decking material has also proven to be a potential vulnerability to a home's resistance to wildfire. In addition to combustible versus non-combustible materials used for decking, a well maintained wood deck could be less combustible than an unmaintained dry deck. If it cannot be determined from whether the decking is made with non-combustible material or wood, assume wood construction.

The following page shows the wildfire risk ranking completed for each structure.

Wildfire R	Wildfire Risk Score Ranking			
Access	Address	Posted and reflective	0	
		Posted and non-reflective	5	
		No address posted	15	
		•		
	Ingress and Egress	Two or more roads in/out	0	
	<u> </u>	One road in/out	10	
	Driveway width	Greater than 20'	0	
		Less than 20'	10	
Vegetation and	Distance to dangerous	More than 150 feet	0	
Topography	topography			
		50-150 feet	30	
		Less than 50 feet	75	
	Neighborhood background fuel	Light (grasses, forbs, tundra)	25	
		Moderate (light brush, small trees)	50	
		Heavy (dense brush or timber	75	
		down and dead fuel)	10	
	Defensible Space	More than 150 feet	0	
		30-150 feet	50	
		10-30 feet	75	
		Less than 10 feet	100	
Structure	Roofing material	Tile or composite	0	
		Asphalt or Indeterminate	50	
		Shake	200	
	Building Exterior	Non-combustible (stucco, cement.	0	
		masonry)		
		Log, heavy timbers	20	
		Wood, Vinyl or wood shake	60	
	Location of woodpiles and	None or > 30 feet from structure	0	
	Somoustibles	10-30 feet from structure	10	
		< 30 feet from structure	30	
	Balcony, deck or porch	None/non-combustible	0	
		combustible material	20	
			20	
	Wildfire Risk Score	Low	0-150	
		Moderate	151-175	
		High	176-270	
		Very High	271-330	
		Extreme	331+	

In total, 2,808 structures were assessed within the Stonewall Fire Protection District. These structures include residences, barns, garages and outbuildings, as well as buildings housing area businesses. The results of the risk assessment for the district as a whole are represented in the table below. **More than 54% of assessed structures are at high, very high or extreme wildfire risk.**

Ranking	Total	Number of structures	Percentage
Low	0-150	1055	38%
Moderate	151-175	236	8%
High	176-270	984	35%
Very High	271-330	324	12%
Extreme	331+	209	7%
	Total	2808	100%

Structure Risk Assessment Results

The SFPD CWPP wildfire risk analysis provides information about relative risk, not absolute risk. Many other factors, including weather, drought, surrounding structures and response time influence actual risk for any structure. Individual risk rankings are available to landowners, but are not available to any other parties, including insurance providers. Insurance providers each use their own underwriting risk analysis procedures. Of course, a structure's risk score is no guarantee of outcome in the event of a fire. It is intended as an educational tool only, designed to assist landowners and communities in reducing their wildland fire risk.

SFPD PREPARDEDNESS

The Stonewall Fire Protection District covers over 547 square miles and is equipped with six fire stations located strategically throughout the district. The district maintains a fleet of 23 fire-fighting and other apparatus, and is staffed with an active crew of 50 trained men and women firefighters, EMTs, and search and rescue teams.

The SFPD is dedicated to protecting lives, quality of life, and natural and human resources. District volunteers respond to wildfires, vehicle accidents, medical emergencies, and structure fires, as well as search and rescue operations.

Fire Fighting Capacity

Training

Training is an essential part of ensuring firefighter and public safety. To assist the Chief, volunteer firefighters help develop and conduct the training. The SFPD maintains a monthly training calendar and conducts regularly scheduled training on various subjects including structure and wildland firefighting, search and rescue, vehicle fire and extrication techniques, basic medical care and safety. SFPD firefighters are encouraged to complete the basic wildland firefighter course (S-130, S-190) within the first year of joining the department.

Personal Protective Equipment

Personal protective equipment is provided to firefighters. This includes Nomex pants and shirts, fire pack, and fire shelters and miscellaneous other items. Search and rescue, structure, and dive gear is also provided to trained personnel. Firefighters provide their own boots.

Communications

All firefighters are equipped with portable VHF radios, which are compatible with federal and state agencies. The chief, assistant chief and some firefighters also have portable 800 MHz radios. All fire apparatus is equipped with mobile VHF radios, and select vehicles also have mobile 800 MHz radios.

The District currently has an emergency response address location program installed on several computers. This program provides GPS location and route planning options.

Equipment

The following tables specify the major equipment at each of the stations within the district.

Cuchara Pass Station



Call #	Туре	Year & Make
E320	Type 5 - 400 gal. Mini-Pumper, 4x4 E320 is a wildland urban interface engine whose primary mission is to respond quickly to structure fires throughout the District; carries 4 firefighters; and can be used to supplement the District's wildland fire capabilities if needed. E320 carries 4 Self Contained Breathing Apparatuses (SCBAs), which are essential equipment for fighting structure fires and providing firefighters with the capability to enter a burning structure. It also has the capability of producing firefighting foam.	2007 Ford
E415	Type 4 - 1000 gal. Engine, 6x6 E415 is used to fight wildland fires throughout the District; carries 2 firefighters; has the capability of producing firefighting foam.	1972 American General
E430	Type 6 - 300 gal. Brush Truck, 4x4 E430 is used to fight wildland fires throughout the District; carries 3 firefighters; also has the capability to produce firefighting foam.	1997 Ford 450

Stonewall Station



Call #	Туре	Year &
		Make
E340	Type 5 - 400 gal. Mini-Pumper, 4x4 E340 is a wildland urban interface engine whose primary mission is to respond quickly to structure fires throughout the District; carries 2 firefighters; and, can be used to supplement the District's wildland fire capabilities if needed. E340 carries 4 Self Contained Breathing Apparatuses (SCBAs), which are essential equipment for fighting structure fires and providing firefighters with the capability to enter a burning structure. It also has the capability of producing firefighting foam.	2011 Ford F550
E405	Type 4 - 1000 gal. Engine, 6x6 E405 is used to fight wildland fires throughout the District; carries 2 firefighters; has the capability of producing firefighting foam.	1991 American General
E435	Type 6 - 500 gal. Brush Truck, 4x4 E430 is used to fight wildland fires throughout the District; carries 5 firefighters; also has the capability to produce firefighting foam	2011 Dodge 5500
T230	Type 2 - 2000 gal Tender Its primary mission is to carry 2000 gallons of water to assist firefighters in areas that are not serviced by fire hydrants. T230 is manned by a crew of 2 firefighters. It carries 4 SCBAs to supplement the supply carried on pumpers in the event of a large fire. As a secondary mission it is capable of performing structure protection missions.	2013 Internationa I 7400
Med 11	Ambulance On loan from Trinidad Ambulance District to facilitate medical emergencies at a great distance from Trinidad.	

Wet Canyon Station



Call #	Туре	Year &
		Make
E350	Type 3 - 400 gal. Mini-Pumper, 4x4 E350 is a wildland urban interface engine whose primary mission is to respond quickly to structure fires throughout the District; carries 2 firefighters; and can be used to supplement the District's wildland fire capabilities if needed. E350 carries 4 Self Contained Breathing Apparatuses (SCBAs), which are essential equipment for fighting structure fires and providing firefighters with the capability to enter a burning structure. It also has the capability of producing firefighting foam.	2011 Ford F550
E400	Type 4 - 1000 gal. Engine, 6x6 E400 is used to fight wildland fires throughout the District; carries 2 firefighters; has the capability of producing firefighting foam.	1973 American General
E425	Type 6 - 500 gal. Brush Truck, 4x4 E425 is used to fight wildland fires throughout the District; carries 5 firefighters; also has the capability to produce firefighting foam.	2007 Ford F550
E600	Type 6 - 225 gal. 3/4 ton 4x4 E600 can be used as a secondary command vehicle and can be used to fight wildland fires. It can carry 5 firefighters.	2001 Dodge
C200	Command Vehicle - Expedition 4x4 C200 is used as an incident command vehicle; carries 5 firefighters	2009 Ford Expedition
C300	Service Vehicle - 3/4 ton 4x4 C300 can carry 2 firefighters	2008 Ford F250
Med 12	Medical Transport Vehicle, 4x4 Used to provide a medical transport vehicle for areas requiring four wheel drive; additional medical transport during large events.	Ford Expedition

T220	Type 2 - 4000 gal Tender	2007
	Its primary mission is to carry 4000 gallons of water to assist	Sterling
	firefighters in areas that are not serviced by fire hydrants. T220 is	
	manned by a crew of 2 firefighters. It carries 4 SCBAs to	
	supplement the supply carried on pumpers in the event of a large	
	Tire. As a secondary mission it is capable of performing structure	
	protection missions.	
ATV	ATV 4x4 + MATTRAX	2013 Honda
	It is primarily used to scout wildland fires in rugged terrain.	
HAZMAT	HAZMAT Trailer	2000
Trailer	Used to store and transport HAZMAT containment and	CargoMate
	protective equipment to incidents throughout the District.	_

La Garita Fire Station



Call #	Туре	Year &
		Make
E310	Type 5 - 400 gal. Mini-Pumper, 4x4 E310 is a wildland urban interface engine whose primary mission is to respond quickly to structure fires throughout the District; carries 2 firefighters; and can be used to supplement the District's wildland fire capabilities if needed. E310 carries 4 Self Contained Breathing Apparatuses (SCBAs), which are essential equipment for fighting structure fires and providing firefighters with the capability to enter a burning structure. It also has the capability of producing firefighting foam.	2007 Ford F550
E410	Type 6 - 500 gal. Brush Truck, 4x4 E410 is used to fight wildland fires throughout the District; carries 5 firefighters; also has the capability to produce firefighting foam.	2003 Ford F550
E601	Type 6 - 200 gal. Brush Truck, 4x4 E601 is used to fight wildland fires throughout the District; carries 2 firefighters	1967 Kaiser 574T
T200	Type 2 - 3000 gal Tender Its primary mission is to carry 3000 gallons of water to assist firefighters in areas that are not serviced by fire hydrants. T200 is manned by a crew of 2 firefighters. It carries a deployable 3000 gallon water reservoir. It also carries 4 SCBAs to supplement the supply carried on pumpers in the event of a large fire. As a secondary mission it is capable of performing structure protection missions.	
R100	Water/High Angle Rescue Vehicle R100 is used to store and transport water & high angle rescue equipment.	1976 Dodge Van
Boat	Boat & Trailer Used to transport equipment & personnel for water rescue incidents.	Vanguard

Segundo Station



Call #	Туре	Year &
		Маке
E300	Type 1 - 750 gal. Class A Pumper, 4x4	2003 Pierce
	E300 is a wildland urban interface engine whose primary	Hawk
	mission is to respond quickly to structure fires throughout	
	the District; carries 5 firefighters; E300 carries 4 Self	
	Contained Breathing Apparatuses (SCBAs), which are	
	essential equipment for fighting structure fires and providing	
	firefighters with the capability to enter a burning structure. It	
	also has the capability of producing firefighting foam.	
T210	Type 2 - 3000 gal Tactical Tender	2010
	Its primary mission is to carry 3000 gallons of water to assist	Kenworth
	firefighters in areas that are not serviced by fire hydrants. T210 is	
	manned by a crew of 2 firefighters. It carries a deployable 3000-	
	gallon water reservoir. It also carries 4 SCBAs to supplement the	
	secondary mission it is canable of performing structure protection	
	missions.	

Long Canyon Station



Call #	Туре	Year & Make
E330	Type 5 - 400 gal. Mini-Pumper, 4x4 E330 is a wildland urban interface engine whose primary mission is to respond quickly to structure fires throughout the District; carries 2 firefighters; and can be used to supplement the District's wildland fire capabilities if needed. E330 carries 4 Self Contained Breathing Apparatuses (SCBAs), which are essential equipment for fighting structure fires and providing firefighters with the capability to enter a burning structure. It also has the capability of producing firefighting foam.	2006 Ford F550
E420	Type 6 - 500 gal. Brush Truck, 4x4 E420 is used to fight wildland fires throughout the District; carries 5 firefighters; also has the capability to produce firefighting foam.	2004 Ford F550

Mitigation Priorities

Water Supply

The availability and location of water resources is an issue in all parts of the district. Only four functional fire hydrants exist at this time, and all are located along State Highway 12. Only a few cisterns exist within the district. Some wet weather ponds and holding structures exist in the district, but may be unreliable sources of water.

A plan is currently being developed with the City of Trinidad to add nine additional hydrants along State Highway 12 and at the Trinidad Water Treatment Plant. See the individual community area write-ups for details on water supply within the community/planning area.

Wildfire Risk Assessment Crews

Currently six firefighters are certified through the Wildland Fire Assessment Program to complete homeowner assessments of wildfire risk. The program is offered as a low cost service and focuses primarily on low or no cost mitigation modifications.

Wildfire Mitigation Crews

At this time the district has limited wildfire mitigation capabilities. As more communities and individuals become aware of wildland fire risks in the district, it is expected that the demand for mitigation services will increase. It is recommended that the district begin training and outfitting mitigation crews who can respond to that increased demand.

CWPP Mitigation Project Coordinator

SFPD relies on a small staff (Fire Chief and 2 F.T.E. administration staff) and volunteers to provide fire protection and emergency response services in more than 547 square miles. Adding additional work such as identifying Wildfire Mitigation Advocates, seeking funding for district-wide, community-wide or individual projects, or assisting communities to establish FireWise communities will increase the workload for this dedicated but over-committed group.

To ensure this CWPP remains a vital guiding document, and to assist communities in advancing mitigation projects, this plan recommends establishing funding for a part-time Mitigation Project Coordinator.

The role of the Coordinator will be to:

- Assist communities in identifying Wildfire Mitigation Advocates
- Strengthen residents awareness of the importance of individual and community-wide mitigation

- Increase public participation in projects defined in the CWPP
- Promote and facilitate FireWise Councils
- Assist with developing funding opportunities

Identification of Community Wildfire Mitigation Advocates (WMA)

At this time, many WUI areas have no formal infrastructure such as landowners associations to facilitate plan implementation. Identifying existing associations or other groups and community Wildfire Mitigation Advocates for each WUI will create a core group of individuals committed to implementation of the plan. The recommendation to designate a WMA does not imply creating an additional layer of management in areas with existing infrastructure. Rather, the identification of a WMA within existing groups or where no groups exist will assist the SFPD in educational and mitigation efforts within the district by providing a direct communication link to each WUI. The role of the WMA is:

- Act as a community liaison and maintain a working relationship with the project coordinator, fire chief, federal, state and county representatives
- Promote FireWise Councils and FireWise awareness and designations to district citizens
- Help their community connect with the resources and funding necessary to accomplish the mitigation recommendations outlined for their community

FireWise Communities

The National Fire Protection Association's Firewise Communities Program focuses on what residents can do around their homes to reduce potential loss of life and property to wildfire. The creation of Firewise Councils or similar WUI citizen advisory committees to promote shared responsibility is a critical component of reducing wildland fire risk in the SFPD.

Wild Fire Mitigation Projects

To facilitate action on recommended mitigation efforts, it is important that citizens have access to information, assessment opportunities, crews capable of conducting mitigation work and resources to deal with resulting slash and other by-products. It is also critical that cost share or other funding be identified and sought to improve homeowner's ability to cover the costs of mitigation efforts.

Wildfire mitigation demonstration sites located in strategic locations throughout the district will encourage further mitigation projects in the district and assist residents in understanding mitigation techniques.

Working with the Colorado State Forest Service, the BLM and other agencies to create large scale fuel breaks in the SFPD will increase the probability of containing wildland

fires at manageable levels. Fuel breaks are strips of land in which fuel density is reduced, thus improving fire control opportunities. Fuel breaks (or shaded fuel breaks) should not be confused with firebreaks, which are strips of land in which all vegetation is removed.

Recommendations

To facilitate the protection of citizens and property, and to improve the wildland fire risk in the Stonewall Fire Protection District, the following actions are recommended:

Need	Priority	Description
Firefighter safety	1	Upgrade 30 SCBA units Obtain 20 additional VHF radios Obtain 10 additional wildland Nomex shirts/pants sets Obtain 10 additional laptop computers for full computer mapping program use
Training	1	Continue to offer S-130 and S-190 training to new firefighters and as refresher courses Continue to offer RT-130 Annual Wildland Saftey refresher Offer additional training courses to upgrade existing skill levels for all firefighters
Water Supply	2	Continue to work with the City of Trinidad to obtain nine additional fire hydrants. In order of priority these are: 1. Hwy 12 and CR 31.9 (Weston) 2. Hwy 12 at Segundo 3. Hwy 12 at Valdez 4. Hwy 12 at CR 41.7 (Sarcillo Canyon) 5. CR 13 and CR21.6 (Trinidad Water Treatment Plant) 6. Hwy 12 at Lower North Fork 7. Hwy 12 at Lower North Fork 7. Hwy 12 at Rancho Escondido 8. Hwy 12 at Madrid Canyon 9. Hwy 12 at Pioneer Resources, Inc. facility Assist in developing a system of cisterns or other water storage in collaboration with communities within the district and map all existing water sources

Recommendations for improving fire-fighting capacity

Recommendations for Implementation of CWPP

Need	Priority	Description
Mitigation Project	1	Hire part-time Project Coordinator for first
Coordinator		two years of CWPP implementation
Identify Community	2	Identify Wildfire Mitigation Advocates to
Wildfire Mitigation		serve as primary contact resource for each
Advocates		WUI/community
Wildfire Mitigation	3	Develop a trained mitigation crew capable of providing low-cost fuel reduction services within the district
		Develop large scale shaded fuel break to enhance protection of the City of Trinidad Watershed above Monument and North Lake.
		Complete 5 demonstration projects within the district in strategic locations as examples of mitigation for wildland fire risk reduction
		Secure required equipment (chippers, chain saws, dump apparatus) to conduct FireWise wildfire risk mitigation
		Develop slash disposal areas and resources for disposal of mitigation by- products
		Assist homeowners, landowners associations and WUI communities with mitigation projects
		Conduct community chipping projects and slash burn projects
		Work with the Colorado State Forest Service and other agencies to complete identified fuel breaks, see following map
Assist Implementation of	4	Carry out activities under the FireWise
FireWise Community		Communities Program to provide
programs		homeowners education and assistance with implementing FireWise techniques

Stonewall Fire Protection District Station Locations



Section

Two

COMMUNITY IGNITABILITY ANALYSIS AND RECOMMENDATIONS

This section identifies CWPP communities within the Stonewall Fire Protection District. These areas have been identified as Wildland Urban Interfaces (WUI).

According to the guide, "*Preparing a Community Wildfire Protection Plan: A Handbook for Wildland-Urban Interface Communities*," "The wildland-urban interface (WUI) is commonly described as the zone where structures and other human development meet and intermingle with undeveloped wildland or vegetative fuels."

Communities identified as WUIs represent a single geographic area that may encompass a variety of vegetation, topography and infrastructure. The list is primarily based on subdivisions located within the district. Additional areas were identified as geographic areas consisting of similar fire-risk conditions.

For the purposes of this plan, the community boundaries can serve as planning unit boundaries. Subdivisions offer a ready-made boundary with known ownership and possible leadership infrastructure (landowners associations or other community collaborations) appropriate to undertaking WUI-wide mitigation efforts. In areas without existing leadership, coordination of mitigation efforts might be more difficult. For these areas, mitigation recommendations include developing relationships or infrastructure, including identifying a Wildland Fire Mitigation Advocate that can support collaborative efforts within the community.

To improve life safety and preserve property, every home in the SFPD should have compliant, effective defensible space. Mitigation efforts designed to create defensible space are the recommended first priority for every identified community. Defensible space is determined to be the greatest benefit for the least cost for landowners, and is the MOST IMPORTANT action an individual can take. However, additional larger landscape-scale projects are also identified, including some projects

that require collaborative efforts from adjoining communities. Identifying these larger projects in surrounding areas will assist communities in obtaining grants to help fund all the projects.

Completing treatment along the roads in the district is a recommendation made throughout the Stonewall Fire Protection District. A few roads are specifically identified as needing treatment because of fuel loads and amount of traffic. However, all roads within the district boundaries should be considered for fuel reduction treatments, as they are used for access and egress. Particular attention should be paid to roads that offer the only access both in and out of subdivisions or communities.

Each community write-up that follows can be regarded as an individual document. As a result, you will see recommendations such as creating defensible space that apply to all communities.

Each community write-up also includes structure risk data. This data is an amalgam of individual risk assessments, and as such, quantifies a relative risk for each WUI. The community-level assessment identified one community in the study area is at extreme risk. Six communities were rated at very high risk, twenty were rated at high risk, and five were rated at moderate risk. The remaining ten were rated at low risk. Of course, this data can change as mitigation efforts are completed.

Will Your Home Survive a Wildfire?

Get your free wildland fire home assessment done today!



Every year, thousands of homes are damaged or destroyed due to wildfire. You live in the wildlandurban interface, which makes your family and your home more susceptible to this natural disaster. Both lives and properties are at risk, but YOU can take the necessary steps to protect your home and prepare your family.

Contact your local fire department to schedule your free home assessment today!

Department Name	Stonewall Fire Protection District	
Phone	719 868-2249	
Email Address	SFPD.Project@gmail.com	

This program is brought to you by the National Volunteer Fire Council and the U.S. Forest Service.

ADOBE RANCH



Overall Hazard and Risk

The Adobe Ranch community is located within the eastern area of the Stonewall Fire Protection District south of Highway 12. Adobe Ranch encompasses 300 acres within the District. The overall topography of the land is open grassy meadows and shrub dominated areas with steeper sections of pinion-juniper, and the density of vegetation is moderate. The vegetation in the area is comprised of pinon-juniper and oak shrubland with cottonwood trees in riparian areas.

Much of this community is covered by pinon-juniper shrub lands, with smaller areas of grass fuel types. The shrub fuel model is mostly SH1, which is fairly sparse shrub cover with grass or low loads of litter in the understory, and correspondingly low rates of spread (2-3 chains per hour) and flame lengths (less than 1 foot) under adverse weather conditions. In areas where shrub densities and the amount of litter in the understory increase, flame lengths and rates of spread will predictably increase. Grasslands are mostly of the GR1 Fuel Model, with moderate rates of spread (40-80 chains per hour) but low flame lengths (5-7 feet) under adverse weather conditions.

Individual Structure Breakdown



Structure Risk Rating: High Average structure rating: 204.

Adobe Ranch is moderately developed. There are 8 parcels within Adobe Ranch, and the SFPD was able to assess 28 structures. Parcel size ranges from 35-40 acres. Roads leading to structures are unpaved and structures generally have only one road leading to them. There are no noticeable street signs in Adobe Ranches. Few structure addresses are posted and are generally non-reflective and combustible. Building

materials vary widely throughout Adobe Ranch. Many structures have combustible materials within 10 feet of the structure. Defensible space has been inconsistently implemented around current structures.

Protection and Management

Road accessibility for emergency responders within Adobe Ranch is minimal. The main road is County Road 53.2 and is unpaved. There are many one-lane roads and turnarounds are infrequent. There are currently no fire hydrants available within Adobe Ranch and water storage is minimally available. The nearest fire district substation is Long Canyon Station. There are no fire protection capabilities within Adobe Ranch, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the subdivision. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

Adobe Ranch Homeowner Recommendations:

Adobe Ranch General Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	• A local Wildfire Mitigation Advocate should be identified for the community that will assist with implementing recommended mitigation activities in coordination with the SFPD, Colorado State Forest Service and others
Roadside Thinning of CR 53.2 and internal roads	2	• Thin along both sides of road in areas of heavy flammable fuel loadings. This will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing. See <i>"Fuel Break Guidelines for Forested Subdivisions & Communities"</i>
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

See map of recommendations on following page.

Adobe Ranch



ARROWHEAD RANCHETTES



Overall Hazard and Risk

The Arrowhead Ranchettes community is located within the north central area of the Stonewall Fire Protection District north of Highway 12. Arrowhead Ranchettes encompasses 882 acres within the District. The overall topography of the land is mountainous, and the density of vegetation is moderate to high. The vegetation in the area is comprised mainly of ponderosa pine/gambel oak interspersed with grass meadows, with pinon-juniper on drier and south facing slopes with some spruce/fir.

Most of this community is classified as the TU5 Fuel Model, which is characterized by Scott and Burgan (2005) as "heavy forest litter with a shrub or small tree understory." Predicted rates of spread are moderate, but under dry windy conditions may be greater than 40 chains per hour. Flame lengths are also moderate, but under dry windy conditions may be greater than 15 feet, making control efforts very difficult. A much smaller area is occupied by the GR2 model, which is primary grass but may contain shrubs. When the grass is dry, flame lengths can be as high as 10 feet, and rates of spread can easily exceed 100 chains per hour.





Structure Risk Rating: High Average structure rating: 191

Arrowhead Ranchettes is moderately developed. There are 22 parcels within the portion of Arrowhead Ranchettes within the district, and the SFPD was able to assess 26 structures. Parcel size ranges from 35-40 acres. Roads leading to structures are unpaved and structures have one road leading to them. There are no street signs and the few structure addresses that are posted

are generally non-reflective and combustible. Building materials vary widely throughout Arrowhead Ranchettes. Many structures have combustible materials within 10 feet of the structure. Defensible space has been inconsistently implemented.

Protection and Management

Road accessibility for emergency responders within Arrowhead Ranchettes is moderate. The main road is Arrowhead Road and is unpaved. There are one-lane roads and turnarounds are infrequent. There are currently no fire hydrants available within Arrowhead Ranchettes and water storage is minimally available. The nearest fire district substation is La Garita Station. There are no fire protection capabilities within Arrowhead Ranchettes, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the subdivision. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

Arrowhead Ranchettes Homeowner Recommendations:

Arrowhead Ranchettes General Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	A local Wildfire Mitigation Advocate should be identified for the community that will assist with implementing recommended mitigation activities in coordination with the SFPD, Colorado State Forest Service and others
Roadside Thinning of Arrowhead Road and internal roads	2	• Thin along both sides of road in areas of heavy flammable fuel loadings. This will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing. See <i>"Fuel Break Guidelines for Forested Subdivisions & Communities"</i>
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

See map of recommendations on following page.

Arrowhead Ranchettes



ASPEN ROSE RANCH



Overall Hazard and Risk

The Aspen Rose Ranch community is located within the north central area of the Stonewall Fire Protection District north of Highway 12. Aspen Rose Ranch encompasses 1100 acres within the Stonewall Fire Protection District. The overall topography of the land is mountainous, and the density of vegetation is high. The vegetation in the area is comprised of ponderosa pine, spruce-fir, and aspen with oak shrubland scattered throughout.

The forests with highest density in this community are of the TU5 Fuel Model, characterized by Scott and Burgan (2005) as "heavy forest litter with a shrub or small tree understory." Predicted rates of spread are moderate, but under dry windy conditions may be greater than 40 chains per hour. Flame lengths are also moderate, but under dry windy conditions may be greater than 15 feet, making control efforts very difficult. Within the valley bottoms, the GR2 Fuel Model is common, where fire is carried by grass and occasional shrubs, where flame lengths can be as high as 10 feet, and rates of spread can easily exceed 100 chains per hour.



Structure Risk Rating: High Average structure rating: 266

Aspen Rose Ranch is moderately developed. There are approximately 20 parcels within Aspen Rose Ranch, and the SFPD was able to assess 9 structures. Parcel size ranges from 35-40 acres. Roads leading to structures are unpaved, and structures generally have one road leading to them. Street signs and structure addresses are posted, but generally are non-reflective and combustible. Building materials vary widely throughout Aspen Rose Ranch. Many structures

have combustible materials within 10 feet of the structure. Defensible space has been inconsistently implemented around current structures.

Protection and Management

Road accessibility for emergency responders within Aspen Rose Ranch is moderate to good. The main road is Aspen Road Drive and is unpaved. There are many one-lane roads and turnarounds are infrequent. There are currently no fire hydrants available within Aspen Rose Ranch and water storage is minimally available. The nearest fire district substation is Wet Canyon Station. There are no fire protection capabilities within Aspen Rose Ranch, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the subdivision. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

Aspen Rose Ranch Homeowner Recommendations:

Aspen Rose Ranch General Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description	
Identify Wildfire Mitigation Advocate/s	1	A local Wildfire Mitigation Advocate should be identified for the community that will assist with implementing recommended mitigation activities in coordination with the SFPD, Colorado State Forest Service and others	
Roadside Thinning of Aspen Road Drive and internal roads	2	• Thin along both sides of road in areas of heavy flammable fuel loadings. This will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing. See <i>"Fuel Break Guidelines for Forested Subdivisions & Communities"</i>	
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required. 	
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required. 	

See map of recommendations on following page.

Aspen Rose Ranch


BarNI HEADQUARTERS



Overall Hazard and Risk

The BarNI Headquarters community is located within the western area of the Stonewall Fire Protection District south of Highway 12. BarNI Headquarters encompasses 1492 acres within the Stonewall Fire Protection District. The overall topography of the land is mountainous, and the density of vegetation is moderate. The vegetation in the area is comprised of ponderosa pine, oak shrubland, grassland, and riparian vegetation.

Most of the area surrounding the structures scattered about the Bar NI Ranch Headquarters are grasslands of the Fuel Model GR1. The large ponderosa pine trees present in this area are well-spaced, have thick fire-resistant bark and will not carry fire under most weather conditions. The grass understory is predicted to exhibit moderate rates of spread (40-80 chains per hour) but low flame lengths (5-7 feet) under adverse weather conditions. The predicted behaviors can vary depending on density, height and moisture content of the grass. As the land rises to the west, thicker pine and mixed conifer forests become the norm and are classified as Fuel Model TU5, with predicted rates of spread may be greater than 40 chains per hour and flame lengths greater than 15 feet under adverse weather conditions.



Structure Risk Rating: Low Average structure rating: 139

BarNI Headquarters is minimally developed. There is one parcel within BarNI Headquarters, and the SFPD was able to assess 18 structures. Roads leading to structures are unpaved, and structures generally have one road leading to them. Street signs and structure addresses are posted, but are non-reflective and combustible. Building materials vary widely throughout BarNI Headquarters. Some structures

have combustible materials within 10 feet of the structure. Defensible space has been implemented around some structures.

Road accessibility for emergency responders within BarNI Headquarters is moderate. The main road is Highway 12 and is paved. There are one-lane roads and turnarounds are infrequent. There is currently one dry fire hydrant available within BarNI Headquarters and water storage is moderately available. The nearest fire district substation is Stonewall Station. There are sprinkler systems on structures within BarNI Headquarters, but otherwise there are no fire protection capabilities. There are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the area. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

BarNI Headquarters Recommendations:

BarNI Headquarters General Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	• A local Wildfire Mitigation Advocate should be identified for the community that will assist with implementing recommended mitigation activities in coordination with the SFPD, Colorado State Forest Service and others
Roadside Thinning of Highway 12 and internal roads	2	• Thin along both sides of road in areas of heavy flammable fuel loadings. This will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing. See <i>"Fuel Break Guidelines for Forested Subdivisions & Communities"</i>
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.



Bar NI Ranch Headquarters Area

Big Pine Ranch



Overall Hazard and Risk

The Big Pine Ranch community is located within the central area of the Stonewall Fire Protection District north of Highway 12. Big Pine Ranch encompasses 1200 acres within the Stonewall Fire Protection District. The overall topography of the land is mountainous, and the majority of structures are built on the upper elevations and ridgelines of the subdivision. The density of vegetation is moderate. The vegetation in the area is comprised mainly of ponderosa pine/gambel oak, with pinon-juniper on drier and south facing slopes and with some spruce/fir, mostly on north facing slopes.

This community lies within the central portion of Wet Canyon and rises to the east. On northerly aspects are found the thickest forest coverage. These are mostly of the TU5 Fuel Model, which is characterized by Scott and Burgan (2005) as "heavy forest litter with a shrub or small tree understory." Predicted rates of spread are moderate, but under dry windy conditions may be greater than 40 chains per hour. Flame lengths are moderate, but under dry windy conditions may be greater than 15 feet, making control efforts very difficult. Southern aspects are warmer and drier, with less tree coverage with some shrubs and grass in the understory. This is mostly of the TU1 Fuel Model, where fire is carried by a timber understory of grass or small amounts of shrub or litter. In these fuels under even the most adverse conditions, rates of spread are predicted to be relatively low (around 10-12 chains per hour) and flame lengths at 4 feet or less.





Structure Risk Rating: High Average structure rating: 221

Big Pine Ranch is moderately developed. There are approximately 34 parcels within Big Pine Ranch, and the SFPD was able to assess 49 structures. Parcel size ranges from 35-40 acres. Roads leading to structures are unpaved, and structures generally have one road leading to them. Street signs and structure addresses are posted, but generally are non-reflective and combustible. Building materials vary widely throughout Big Pine Ranch. Many structures have combustible materials within 10 feet. Defensible space has been inconsistently implemented around current structures.

Protection and Management

Road accessibility for emergency responders within Big Pine Ranch is moderate to good. The main road is Big Pine Ridge Road and is unpaved. There are many one-lane roads and turnarounds are infrequent. There are currently no fire hydrants available within Big Pine Ranch and water storage is minimally available. The nearest fire district substation is Wet Canyon Station. There are no fire protection capabilities within Big Pine Ranch, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the subdivision. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

Big Pine Ranch Homeowner Recommendations:

Big Pine Ranch General Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	A local Wildfire Mitigation Advocate should be identified for the community that will assist with implementing recommended mitigation activities in coordination with the SFPD, Colorado State Forest Service and others
Roadside Thinning of Big Pine Ridge Road and internal roads	2	• Thin along both sides of road in areas of heavy flammable fuel loadings. This will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing. See <i>"Fuel Break Guidelines for Forested Subdivisions & Communities"</i>
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

Big Pine Ranch



CIELO GRANDE



Overall Hazard and Risk

The Cielo Grande community is located within the central area of the Stonewall Fire Protection District north of Highway 12. Cielo Grande encompasses 434 acres within the Stonewall Fire Protection District. The overall topography of the land is mountainous, and the density of vegetation is moderate. The vegetation in the area is comprised of pinon-juniper, oak shrubland, and scattered ponderosa pine.

This community starts within the central portion of Wet Canyon and rises to the west. On northerly aspects are found the thickest forest coverage. These are mostly of the TU5 Fuel Model, which is characterized by Scott and Burgan (2005) as "heavy forest litter with a shrub or small tree understory." Predicted rates of spread are moderate, but under dry windy conditions may be greater than 40 chains per hour. Flame lengths are also moderate, but under dry windy conditions may be greater than 15 feet, making control efforts very difficult. Southern aspects are warmer and drier, with a higher shrub component. Most of these lands contain the SH1 Fuel Model, comprised mostly of shrubs interspersed with grass. While predicted rates of spread and flame lengths are low (less than 3 chains per hour and 2 feet) in this fuel model, increased amounts of grass will result in higher rates of spread, and thick shrub cover will increase flame lengths and corresponding suppression difficulty.





Structure Risk Rating: Very High Average structure rating: 295

Cielo Grande is a minimally developed gated community. There are approximately 12 parcels within Cielo Grande, and the SFPD was able to assess 11 structures. Parcel size ranges from 35-40 acres. Roads leading to structures are unpaved, and structures generally have one road leading to them. Street signs and structure addresses are minimally posted. Building materials vary widely throughout Cielo Grande.

Many structures have combustible materials within 10 feet of the structure. Defensible space has been inconsistently implemented around current structures.

Road accessibility for emergency responders within Cielo Grande is moderate. The main road is Cielo Grande Road and is unpaved. There are many one-lane roads and turnarounds are infrequent. There are currently no fire hydrants available within Cielo Grande and water storage is minimally available. The nearest fire district substation is Wet Canyon Station. There are no fire protection capabilities within Cielo Grande, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the subdivision. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

Cielo Grande Homeowner Recommendations:

Cielo Grande General Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	• A local Wildfire Mitigation Advocate should be identified for the community that will assist with implementing recommended mitigation activities in coordination with the SFPD, Colorado State Forest Service and others
Roadside Thinning of Cielo Grande Road and internal roads	2	• Thin along both sides of road in areas of heavy flammable fuel loadings. This will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing. See <i>"Fuel Break Guidelines for Forested Subdivisions & Communities"</i>
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

Cielo Grande



CIMARRON – PINE VALLEY



Overall Hazard and Risk

The Cimarron - Pine Valley community is located within the northwestern area of the Stonewall Fire Protection District north of Highway 12. Cimarron - Pine Valley encompasses 2138 acres within the Stonewall Fire Protection District. The overall topography of the land is mountainous, and the density of vegetation is moderate. The vegetation in the area is comprised of ponderosa pine, spruce-fir, and scattered oak shrubland interspersed with grassy meadows.

This community is located within the upper portion of Wet Canyon and the confluence of several smaller canyons. As a result, a substantial amount of area is valley-bottom grassland, classified as the GR2 Fuel Model. This is primarily grass but may include occasional shrubs, with predicted flame lengths as high as 10 feet, and rates of spread exceeding 100 chains per hour under adverse conditions. The surrounding hills transition from grass to forests, where the TU5 Fuel Model is most common, with predicted rates of spread of 40 chains per hour and flame lengths up to 10 feet under dry and windy conditions.





Structure Risk Rating: High Average structure rating: 268

Cimarron - Pine Valley is minimally developed. There are approximately 187 parcels within Cimarron - Pine Valley, and the SFPD was able to assess 74 structures. Parcel size ranges from 3-12 acres. Roads leading to structures are unpaved, and structures generally have one road leading to them. Street signs and structure addresses are minimally posted. Building materials vary widely throughout Cimarron - Pine

Valley. Many structures have combustible materials within 10 feet of the structure. Defensible space has been inconsistently implemented around current structures.

Road accessibility for emergency responders within Cimarron - Pine Valley is poor to moderate. The main road is County Road 31.9 and is unpaved. There are many onelane roads and turnarounds are infrequent. There are currently no fire hydrants available within Cimarron - Pine Valley and water storage is minimally available. The nearest fire district substation is Wet Canyon Station. There are no fire protection capabilities within Cimarron - Pine Valley, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the subdivision. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

Cimarron - Pine Valley Homeowner Recommendations:

Cimarron - Pine Valley General Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	A local Wildfire Mitigation Advocate should be identified for the community that will assist with implementing recommended mitigation activities in coordination with the SFPD, Colorado State Forest Service and others
Roadside Thinning of CR 31.9 and internal roads	2	• Thin along both sides of road in areas of heavy flammable fuel loadings. This will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing. See <i>"Fuel Break Guidelines for Forested Subdivisions & Communities"</i>
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

Cimarron-Pine Valley



CIMARRON RANCH



Overall Hazard and Risk

The Cimarron Ranch community is located within the north central area of the Stonewall Fire Protection District north of Highway 12. Cimarron Ranch encompasses 5260 acres within the Stonewall Fire Protection District. The overall topography of the land is mountainous, and the density of vegetation is moderate. The vegetation in the area is comprised of ponderosa pine, spruce-fir, and oak shrubland, interspersed with grassy meadows.

This community is large and contains several forest and fuel types. Most of this large area is classified as the TU5 Fuel Model, which is characterized by Scott and Burgan (2005) as "heavy forest litter with a shrub or small tree understory." Predicted rates of spread are moderate, but under dry windy conditions may be greater than 40 chains per hour. Flame lengths are also moderate, but under dry windy conditions may be greater than 15 feet, making control efforts very difficult. A much smaller area is occupied by the GR2 model, which is primary grass but may contain shrubs. When the grass is dry, flame lengths can be as high as 10 feet, and rates of spread can easily exceed 100 chains per hour.





Structure Risk Rating: High Average structure rating: 233

Cimarron Ranch is moderately developed. There are approximately 111 parcels within Cimarron Ranch, and the SFPD was able to assess 138 structures. Parcel size ranges from 35-40 acres. Roads leading to structures are unpaved, and structures generally have one road leading to them. Street signs and structure addresses are minimally posted. Building materials vary widely throughout Cimarron Ranch. Many

structures have combustible materials within 10 feet of the structure. Defensible space has been inconsistently implemented around current structures.

Road accessibility for emergency responders within Cimarron Ranch is moderate. The main road is 21.5 and is unpaved. There are many one-lane roads and turnarounds are infrequent. There are currently no fire hydrants available within Cimarron Ranch and water storage is minimally available. The nearest fire district substation is Wet Canyon Station. There are no fire protection capabilities within Cimarron Ranch, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the subdivision. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

Cimarron Ranch Homeowner Recommendations:

Cimarron Ranch General Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	• A local Wildfire Mitigation Advocate should be identified for the community that will assist with implementing recommended mitigation activities in coordination with the SFPD, Colorado State Forest Service and others
Roadside Thinning of 21.5 Road and internal roads	2	• Thin along both sides of road in areas of heavy flammable fuel loadings. This will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing. See <i>"Fuel Break Guidelines for Forested Subdivisions & Communities"</i>
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

COLORADO MOUNTAIN LAKE ESTATES



Overall Hazard and Risk

The Colorado Mountain Lake Estates community is located within the eastern area of the Stonewall Fire Protection District south of Highway 12. Colorado Mountain Lake Estates encompasses 346 acres within the Stonewall Fire Protection District. The overall topography of the land is mountainous, and the density of vegetation is moderate. The vegetation in the area is comprised of open grass and shrub areas with pinion-juniper.

This community, situated within the eastern portion of the district, contains drier conifer forests which are of the TL3 Fuel Model. Here, fire is most often carried by the materials deposited on the ground, and predicted rates of spread are less than 5 chains per hour and flame lengths of less than 2 feet. However, where litter accumulations are thicker or shrubs and small trees are present in the understory, flame lengths would be expected to be much greater. To a lesser extent, areas with mostly grass cover fit the GR1 Fuel Model, with moderate rates of spread (40-80 chains per hour) but low flame lengths (5-7 feet) under adverse weather conditions.





Structure Risk Rating: High Average structure rating: 206

Colorado Mountain Lake Estates is moderately developed. There are approximately 65 parcels within Colorado Mountain Lake Estates, and the SFPD was able to assess 10 structures. Parcel size is less than 12 acres. Roads leading to structures are unpaved, and structures generally have one road leading to them. Street signs and structure addresses are minimally posted. Building materials vary widely throughout

Colorado Mountain Lake Estates. Many structures have combustible materials within 10 feet of the structure. Defensible space has been inconsistently implemented around current structures.

Road accessibility for emergency responders within Colorado Mountain Lake Estates is poor to moderate. The main road is County Road 16 and is unpaved. Roads are onelane and turnarounds are infrequent. There are currently no fire hydrants available within Colorado Mountain Lake Estates and water storage is minimally available. The nearest fire district substation is Long Canyon Station. There are no fire protection capabilities within Colorado Mountain Lake Estates, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the subdivision. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

Colorado Mountain Lake Estates Homeowner Recommendations:

Colorado Mountain Lake Estates General Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	 A local Wildfire Mitigation Advocate should be identified for the community that will assist with implementing recommended mitigation activities in coordination with the SFPD, Colorado State Forest Service and others
Roadside Thinning of CR 16 and internal roads	2	• Thin along both sides of road in areas of heavy flammable fuel loadings. This will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing. See <i>"Fuel Break Guidelines for Forested Subdivisions & Communities"</i>
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

Colorado Mountain Lake Estates



COUGAR RIDGE



Overall Hazard and Risk

The Cougar Ridge community is located within the north central area of the Stonewall Fire Protection District north of Highway 12. Cougar Ridge encompasses 506 acres within the Stonewall Fire Protection District. The overall topography of the land is mountainous, and the density of vegetation is moderate. The vegetation in the area is comprised of ponderosa pine, oak shrubland, with some spruce-fir.

This community like others within Wet Canyon contains an abundance of ponderosa pine forests and is of the TU5 Fuel Model common in the area, with predicted rates of spread are moderate, but under dry windy conditions may be greater than 40 chains per hour. Flame lengths are also moderate, but under dry windy conditions may be greater than 15 feet, making control efforts very difficult. Less common grass-covered areas are of the GR1 Fuel Model, with moderate rates of spread (40-80 chains per hour) but low flame lengths (5-7 feet) under adverse weather conditions.





Structure Risk Rating: Moderate Average structure rating: 174

Cougar Ridge is moderately developed. There are approximately 14 parcels within Cougar Ridge, and the SFPD was able to assess 10 structures. Parcel size ranges from 35-40 acres. Roads leading to structures are unpaved, and structures generally have one road leading to them. Street signs and structure addresses are minimally posted. Building materials vary widely throughout Cougar Ridge. Many structures have

combustible materials within 10 feet of the structure. Defensible space has been inconsistently implemented around structures.

Road accessibility for emergency responders within Cougar Ridge is moderate. The main road is County Road 31.9 and is unpaved. There are many one-lane roads and turnarounds are infrequent. There are currently no fire hydrants available within Cougar Ridge and water storage is minimally available. The nearest fire district substation is Wet Canyon Station. There are no fire protection capabilities within Cougar Ridge, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the subdivision. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

Cougar Ridge Homeowner Recommendations:

Cougar Ridge General Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	• A local Wildfire Mitigation Advocate should be identified for the community that will assist with implementing recommended mitigation activities in coordination with the SFPD, Colorado State Forest Service and others
Roadside Thinning of County Road 31.9 and internal roads	2	• Thin along both sides of road in areas of heavy flammable fuel loadings. This will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing. See <i>"Fuel Break Guidelines for Forested Subdivisions & Communities"</i>
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

Cougar Ridge



CUCHARA PASS RANCH



Overall Hazard and Risk

The Cuchara Pass Ranch community is located within the north western area of the Stonewall Fire Protection District east of Highway 12. Cuchara Pass Ranch encompasses 2245 acres within the Stonewall Fire Protection District. The overall topography of the land is very mountainous, and the density of vegetation is high. The vegetation in the area is comprised of spruce-fir, aspen, and scattered ponderosa pine.

The mixed conifer and spruce-fir forests common throughout this community fall under the TU5 Fuel Model, characterized by Scott and Burgan (2005) as "heavy forest litter with a shrub or small tree understory." Predicted rates of spread are moderate, but under dry windy conditions may be greater than 40 chains per hour. Flame lengths are also moderate, but under dry windy conditions may be greater than 15 feet, making control efforts very difficult. The aspen-dominated forests which are present to a lesser extent are mostly Fuel Model TU1, where fire is carried by a timber understory of grass or small amounts of shrub or litter. In these fuels under even the most adverse conditions, rates of spread are predicted to be relatively low (around 10-12 chains per hour) and flame lengths at 4 feet or less.





Structure Risk Rating: High Average structure rating: 216

Cuchara Pass Ranch is moderately developed. There are approximately 29 parcels within Cuchara Pass Ranch, and the SFPD was able to assess 43 structures. Parcel size ranges from 35-40 acres. Roads leading to structures are unpaved, and structures generally have one road leading to them. Street signs and structure addresses are posted, but generally are nonreflective and combustible. Building materials

vary widely throughout Cuchara Pass Ranch. Many structures have combustible materials within 10 feet of the structure. Defensible space has been inconsistently implemented around current structures.

Road accessibility for emergency responders within Cuchara Pass Ranch is moderate. The main road is Arch Lane and is unpaved. There are many one-lane roads and turnarounds are infrequent. There are currently no fire hydrants available within Cuchara Pass Ranch and water storage is minimally available. The nearest fire district substation is Cuchara Pass Station. There are no fire protection capabilities within Cuchara Pass Ranch, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the subdivision. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

Cuchara Pass Ranch Homeowner Recommendations:

Cuchara Pass Ranch General Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	• A local Wildfire Mitigation Advocate should be identified for the community that will assist with implementing recommended mitigation activities in coordination with the SFPD, Colorado State Forest Service and others
Roadside Thinning of Arch Lane and internal roads	2	• Thin along both sides of road in areas of heavy flammable fuel loadings. This will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing. See <i>"Fuel Break Guidelines for Forested Subdivisions & Communities"</i>
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

Cuchara Pass Ranch



EAGLES LANDING/EAGLE MOUNTAIN ESTATES



Overall Hazard and Risk

The Eagles Landing/Eagle Mountain Estates community is located within the western area of the Stonewall Fire Protection District north of Highway 12. Eagles Landing/Eagle Mountain Estates encompasses 2352 acres within the Stonewall Fire Protection District. The overall topography of the land is mountainous, and the density of vegetation is moderate. The vegetation in the area is comprised of spruce-fir, ponderosa pine, and oak shrubland.

These communities are located above and to the west of the North Fork Purgatoire River Canyon. The majority of the land is covered with mixed conifer and ponderosa pine forests, both of which are best described by the TU5 Fuel Model and characterized by Scott and Burgan (2005) as "heavy forest litter with a shrub or small tree understory." Predicted rates of spread are moderate, but under dry windy conditions may be greater than 40 chains per hour. Flame lengths are also moderate, but under dry windy conditions may be greater than 15 feet, making control efforts difficult. Lower areas contain significant amounts of the SH2 Fuel Type, with predicted rates of spread of 30 chains per hour and flame lengths of 6 to 8 feet in adverse conditions.





Structure Risk Rating: Very High Average structure rating: 295

Eagles Landing/Eagle Mountain Estates is moderately developed. There are approximately 53 parcels within Eagles Landing/Eagle Mountain Estates, and the SFPD was able to assess 25 structures. Parcel size ranges from 35-40 acres. Roads leading to structures are unpaved, and structures generally have one road leading to them. Street signs and structure addresses are

posted, but generally are non-reflective and combustible. Building materials vary widely throughout Eagles Landing/Eagle Mountain Estates. Many structures have combustible materials within 10 feet of the structure. Defensible space has been inconsistently implemented around current structures.

Road accessibility for emergency responders within Eagles Landing/Eagle Mountain Estates is moderate. The main road is Stonewall Parallel and is unpaved. There are many one-lane roads and turnarounds are infrequent. There are currently no fire hydrants available within Eagles Landing/Eagle Mountain Estates and water storage is moderately available. The nearest fire district substation is Stonewall Station. There are no fire protection capabilities within Eagles Landing/Eagle Mountain Estates, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the subdivisions. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

Eagles Landing/Eagle Mountain Estates Homeowner Recommendations:

Eagles Landing/Eagle Mountain Estates General Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	• A local Wildfire Mitigation Advocate should be identified for the community that will assist with implementing recommended mitigation activities in coordination with the SFPD, Colorado State Forest Service and others
Roadside Thinning of Stonewall Parallel and internal roads	2	• Thin along both sides of road in areas of heavy flammable fuel loadings. This will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing. See <i>"Fuel Break Guidelines for Forested Subdivisions & Communities"</i>
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.
EAST HWY 12 CORRIDOR



Overall Hazard and Risk

The East Hwy 12 corridor community is located within the eastern area of the Stonewall Fire Protection District. The East Hwy 12 corridor encompasses 5367 acres within the Stonewall Fire Protection District. The overall topography of the land is hills and river bottom, and the density of vegetation is low. The vegetation in the area is comprised of pinon-juniper and cottonwood in riparian areas, interspersed with gassy meadows and/or irrigated farmland.

This area includes areas along the highway and Purgatoire River that are not part of any designated community. The vegetation coverage generally proceeds from grasslands along the river and canyon bottoms, transitioning to grass and shrub mixtures along lower hillsides, with pinon-juniper woodlands of varying densities at the higher elevations. Rates of spread are expected to be highest in areas with significant grass cover, with flame lengths generally low but dependent on depth and moisture content of the grass. Fire may spread fairly rapidly where shrubs are occasionally mixed with grass with slight increases in flame heights. In pinon-juniper woodlands rates of spread would be expected to decrease with the addition of larger fuel sizes. Control efforts may be complicated by greater flame lengths and distance from roads in some of these areas.





Structure Risk Rating: Low Average structure rating: 149

East Hwy 12 corridor is moderately developed. The SFPD was able to assess 135 structures. Parcel size is highly varied. Roads leading to structures are unpaved, and structures generally have one road leading to them. Street signs and structure addresses vary widely. Building materials also vary widely throughout the East Hwy 12 corridor. Defensible space varies around current structures is minimally implemented.

Protection and Management

Road accessibility for emergency responders within East Hwy 12 corridor is high. The main road is Highway 12 and is paved. There are one-lane roads and turnarounds are infrequent on those roads. There are currently no fire hydrants available within East Hwy 12 corridor and water storage is minimally available. The nearest fire district substation is Segundo Station. There are no fire protection capabilities within East Hwy 12 corridor, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the area. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

East Hwy 12 corridor Homeowner Recommendations:

East Hwy 12 corridor General Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	 A local Wildfire Mitigation Advocate should be identified for the community that will assist with implementing recommended mitigation activities in coordination with the SFPD, Colorado State Forest Service and others
Roadside Thinning of internal roads	2	• Thin along both sides of road in areas of heavy flammable fuel loadings. This will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing. See <i>"Fuel Break Guidelines for Forested Subdivisions & Communities"</i>
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

GLEN ASPEN



Overall Hazard and Risk

The Glen Aspen community is located within the northwestern area of the Stonewall Fire Protection District west of Highway 12. Glen Aspen encompasses 623 acres within the Stonewall Fire Protection District. The overall topography of the land is mountainous, and the density of vegetation is high. The vegetation in the area is comprised of spruce-fir, ponderosa pine, and aspen.

Located to the west of Highway 12, this community contains pine and mixed conifer forests both of which fit the TU5 Fuel Model, with moderate predicted rates of spread, but under dry windy conditions may be greater than 40 chains per hour. Flame lengths are also moderate, but under dry windy conditions may be greater than 15 feet, making control efforts very difficult. Open areas have both a significant grass and shrub component, mostly of the SH5 Fuel Model. Here, both grass and shrubs can contribute to high rates of spread (greater than 100 chains per hour) and high flame lengths (in excess of 15 feet) contributing to control difficulties.





Structure Risk Rating: Very High Average structure rating: 276

Glen Aspen is highly developed. There are approximately 11 parcels within Glen Aspen, and the SFPD was able to assess 31 structures. Parcel size is less than 12 acres. Roads leading to structures are unpaved, and structures generally have one road leading to them. Street signs and structure addresses are minimally posted. Building materials vary widely throughout Glen Aspen. Many structures have

combustible materials within 10 feet of the structure. Defensible space has been inconsistently implemented around current structures.

Protection and Management

Road accessibility for emergency responders within Glen Aspen is poor. The main road is Highway 12 and is paved. There are many one-lane roads and turnarounds are infrequent. There are currently no fire hydrants available within Glen Aspen and water storage is minimally available. The nearest fire district substation is Stonewall Station. There are no fire protection capabilities within Glen Aspen, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the subdivision. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

Glen Aspen Homeowner Recommendations:

Glen Aspen General Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	• A local Wildfire Mitigation Advocate should be identified for the community that will assist with implementing recommended mitigation activities in coordination with the SFPD, Colorado State Forest Service and others
Roadside Thinning of HWY 12 and internal roads	2	• Thin along both sides of road in areas of heavy flammable fuel loadings. This will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing. See <i>"Fuel Break Guidelines for Forested Subdivisions & Communities"</i>
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

Glen Aspen



HWY 12 SOUTH DISTRICT



Overall Hazard and Risk

The Hwy 12 South District community is located within the southern area of the Stonewall Fire Protection District and runs south of Segundo to the state line and west to County Road 13. The Hwy 12 South District encompasses 15,710 acres within the Stonewall Fire Protection District. The overall topography of the land is mountainous, and the density of vegetation is moderate to high. The vegetation in the area is comprised of spruce-fir, ponderosa pine, pinon-juniper, oak shrubland, interspersed with grassy meadows, and with aspens in high elevations.

This large area includes substantial landholdings along the southern border of the SFPD and is bounded to the north by areas along the Purgatoire River. For the most part, grasslands and grass-shrub mixtures cover lands at the lowest elevations. In these areas, fire can be expected to spread fairly rapidly under adverse weather conditions, but flame lengths will remain low which make suppression efforts possible. Most forested lands vary from pinon-juniper woodlands in the east, ponderosa pine forests found midway traveling west, and mixed conifer forests at the upper elevations at the western edges. Most of the pine and mixed conifer forests are classified as a TU5 Fuel Model with predicted rates of spread nearing 40 chains per hour and flame lengths exceeding 15 feet under dry windy conditions, which create control problems.





Structure Risk Rating: Moderate Average structure rating: 174

Hwy 12 South District is minimally developed. There are approximately 46 parcels within Hwy 12 South District, and the SFPD was able to assess 90 structures. Parcels are large ranch holdings. Roads leading to structures are unpaved, and structures generally have one road leading to them. Street signs and structure addresses are minimally posted. Building materials vary widely throughout Hwy 12 South

District. Many structures have combustible materials within 10 feet of the structure. Defensible space has been inconsistently implemented around current structures.

Protection and Management

Road accessibility for emergency responders within Hwy 12 South District is moderate to low. The main roads are Hill Ranch Road, County Road 13 and are unpaved. There are one-lane roads and turnarounds are infrequent. There is currently one intermittent water source at Highway 12 and Hill Ranch Road available seasonably and water storage is moderately available with seven ponds scattered throughout the community. The nearest fire district substations are Segundo Station and Stonewall Station. There are no fire protection capabilities within Hwy 12 South District, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the area. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from Wildfire—Rocky Mountain Edition"</i> in Appendix

Hwy 12 South District Homeowner Recommendations:

Hwy 12 South District General Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	 A local Wildfire Mitigation Advocate should been identified for the community that will assist with implementing recommended activities in coordination with the SFPD, State Forest Service, and federal land managers as appropriate.
Roadside Thinning of Hill Ranch Road, CR 13 and internal roads	2	• Thin along both sides of road in areas of heavy flammable fuel loadings this will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing.
Fuel Breaks	3	• Create fuel break along western edge of West District (see map) to serve as anchor point for fire suppression activities. See <i>Fuel Break</i> <i>Guidelines for Forested Subdivisions & Communities</i> Appendix F
Preparedness Training/ Evacuation	4	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	5	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.



Highway 12 South District

LONG CANYON RANCH (MADRID CANYON)



Overall Hazard and Risk

The Long Canyon Ranch community is located within the eastern area of the Stonewall Fire Protection District south of Highway 12. Long Canyon Ranch encompasses 2473 acres within the Stonewall Fire Protection District. The overall topography of the land is mountainous, and the density of vegetation is moderate. The vegetation in the area is comprised of pinon-juniper, scattered ponderosa pine and oak shrubland.

This community is south of Highway 12 and the Purgatoire River, immediately to the east of Widow Woman Canyon in the eastern portion of the district. Lower areas within canyons are covered in grasslands of the GS2 Fuel Type, with fire carried primarily by grass and shrub litter, corresponding predicted rates of spread greater than 100 chains per hour and flame lengths of 6 to 8 feet. The majority of the area is covered by pinon-juniper forests with some ponderosa pine on cooler slopes. Most of these forests are described by the TL3 Model, where fire is carried primarily by dried needles and small branches. Fires here are predicted to spread rather slowly (less than 6 chains per hour) and flame lengths are low (less than 2 feet). Thicker forest cover is better described as the TU1 Fuel Model, with rates of spread predicted to be relatively low (around 10-12 chains per hour) and flame lengths at 4 feet or less. It should be noted that both models, under extreme drought and wind conditions and minimal crown spacing, potential exists for dangerous crown fires to develop and move rapidly across large areas.





Structure Risk Rating: High Average structure rating: 224

Long Canyon Ranch is moderately developed. There are approximately 54 parcels within Long Canyon Ranch, and the SFPD was able to assess 46 structures. Parcels range from 35-40 acres. Roads leading to structures are unpaved, and structures generally have one road leading to them. Street signs and structure addresses are minimally posted. Building material varies widely throughout Long Canyon Ranch. Many structures have combustible materials within 10 feet of the structure. Defensible space has been inconsistently implemented around current structures.

Protection and Management

Road accessibility for emergency responders within Long Canyon Ranch is moderate. The main road is 53.2 and is unpaved. There are many one-lane roads and turnarounds are infrequent. There are currently no fire hydrants available within Long Canyon Ranch and water storage is minimally available. The nearest fire district substation is Long Canyon Station. Fire protection capabilities within Long Canyon Ranch are minimal and consist of one Type 6 Bush truck, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the subdivision. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

Long Canyon Ranch Homeowner Recommendations:

Long Ranch Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	 A local Wildfire Mitigation Advocate should be identified for the community that will assist with implementing recommended mitigation activities in coordination with the SFPD, Colorado State Forest Service and others
Roadside Thinning of 53.2 and internal roads	2	• Thin along both sides of road in areas of heavy flammable fuel loadings. This will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing. See <i>"Fuel Break Guidelines for Forested Subdivisions & Communities"</i>
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

LONG CANYON RANCH PHASE 2 (WIDOW WOMAN)



Overall Hazard and Risk

The Long Canyon Ranch Phase 2 community is located within the eastern area of the SFPD south of Highway 12. Long Canyon Ranch Phase 2 encompasses 2476 acres within the Stonewall Fire Protection District. The overall topography of the land is mountainous, and the density of vegetation is moderate. The vegetation in the area is comprised of pinon-juniper, ponderosa pine, and oak shrubland.

This community extends from the Purgatoire River southward from the community of Valdez in the eastern portion of the district. Areas adjacent to the river are covered in grasslands of the GS2 Fuel Type, with fire carried primarily by grass and shrub litter, corresponding predicted rates of spread greater than 100 chains per hour and flame lengths of 6 to 8 feet. The majority of the area is covered by pinon-juniper forests with some ponderosa pine on cooler slopes. Most of these forests are described by the TL3 Model, where fire is carried primarily by dried needles and small branches. Fires here are predicted to spread rather slowly (less than 6 chains per hour) and flame lengths are low (less than 2 feet). Thicker forest cover is better described as the TU1 Fuel Model, with rates of spread predicted to be relatively low (around 10-12 chains per hour) and flame lengths at 4 feet or less. It should be noted that in both models, under extreme drought and wind conditions and minimal crown spacing, potential exists fordangerous crown fires to develop and move rapidly across large areas.

Individual Structure Breakdown



Structure Risk Rating: High Average structure rating: 202

Long Canyon Ranch Phase 2 is moderately developed. There are approximately 54 parcels within Long Canyon Ranch Phase 2, and the SFPD was able to assess 29 structures. Parcels range from 35-40 acres. Roads leading to structures are unpaved, and structures generally have one road leading to them. Street signs and structure addresses are posted, but generally are non-reflective and combustible. Building

materials vary widely throughout Long Canyon Ranch Phase 2. Many structures have

combustible materials within 10 feet of the structure. Defensible space has been inconsistently implemented.

Protection and Management

Road accessibility for emergency responders within Long Canyon Ranch Phase 2 is moderate. The main road is Widow Woman Canyon Road and is unpaved. There are many one-lane roads and turnarounds are infrequent. There are currently no fire hydrants available within Long Canyon Ranch Phase 2 and water storage is minimally available. The nearest fire district substation is Segundo Station. There are no fire protection capabilities within Long Canyon Ranch Phase 2, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the subdivision. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix D

Long Canyon Ranch Phase 2 Homeowner Recommendations:

Long Canyon Ranch Phase 2 Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	 A local Wildfire Mitigation Advocate should be identified for the community that will assist with implementing recommended mitigation activities in coordination with the SFPD, Colorado State Forest Service and others
Roadside Thinning of Widow Woman Canyon Road and internal roads	2	• Thin along both sides of road in areas of heavy flammable fuel loadings. This will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing. See <i>"Fuel Break Guidelines for Forested Subdivisions & Communities"</i>
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

NORTH FORK RANCH



Overall Hazard and Risk

The North Fork Ranch community is located within the north western area of the Stonewall Fire Protection District north of Highway 12. North Fork Ranch encompasses 3503 acres within the Stonewall Fire Protection District. The overall topography of the land is mountainous, and the density of vegetation is moderate. The vegetation in the area is comprised of primarily ponderosa pine, spruce-fir, and oak shrubland, interspersed with pinion-juniper. Grassy meadows and cottonwoods exist along the riparian areas.

This community is located on the hills north of the North Fork Purgatoire River Canyon. It is mostly forested with mixed conifer and ponderosa pine forests, both of which are best described by the TU5 Fuel Model and characterized by Scott and Burgan (2005) as "heavy forest litter with a shrub or small tree understory." Predicted rates of spread are moderate, but under dry windy conditions may be greater than 40 chains per hour. Flame lengths are also moderate, but under dry windy conditions may be greater than 15 feet, making control efforts difficult. Lower areas within canyons are mostly of the GR2 grassland Fuel Model, with fire carried primarily by grass and shrub litter, and corresponding predicted rates of spread greater than 100 chains per hour and flame lengths of 6 to 8 feet.





Structures Risk Rating: High Average structure rating: 209

North Fork Ranch is moderately developed. There are approximately 71 parcels within North Fork Ranch, and the SFPD was able to assess 51 structures. Parcels range from 35-40 acres. Roads leading to structures are unpaved, and structures generally have one road leading to them. Street signs and structure addresses are posted, but generally are non-reflective and combustible. Structure addresses are

inconsistently posted and generally are non-reflective and combustible. Building materials vary widely throughout North Fork Ranch. Many structures have combustible

materials within 10 feet of the structure. Defensible space has been inconsistently implemented around current structures.

Protection and Management

Road accessibility for emergency responders within North Fork Ranch is moderate. The main road is Logging Canyon Road and is unpaved. There are many one-lane roads and turnarounds are infrequent. There are currently no fire hydrants available within North Fork Ranch and water storage is minimally available. The nearest fire district substation is Stonewall Station. There are no fire protection capabilities within North Fork Ranch, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the subdivision. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

North Fork Ranch Homeowner Recommendations:

North Fork Ranch Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	 A local Wildfire Mitigation Advocate should be identified for the community that will assist with implementing recommended mitigation activities in coordination with the SFPD, Colorado State Forest Service and others
Roadside Thinning of Logging Canyon Road and internal roads	2	• Thin along both sides of road in areas of heavy flammable fuel loadings. This will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing. See <i>"Fuel Break Guidelines for Forested Subdivisions & Communities"</i>
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

North Fork Ranch



NORTH LAKE/CAMP SALVATION



Overall Hazard and Risk

The North Lake/Camp Salvation community is located within the north western area of the Stonewall Fire Protection District north of Highway 12. North Lake/Camp Salvation encompasses 650 acres within the Stonewall Fire Protection District. The overall topography of the land is mountainous, and the density of vegetation is high. The vegetation in the area is comprised of primarily ponderosa pine, spruce-fir, and oak shrubland, and pinion-juniper.

This area is characterized by mostly open areas, with occasional heavy shrub pockets and some ponderosa pine forests. In the grassy areas, the GS2 Fuel Model is present, with predicted rates of spread greater than 100 chains per hour and flame lengths of 6 to 8 feet in adverse conditions. Where dense shrub pockets and occasional grass occur, the SH2 Fuel Model is present with lower rates of spread (30 chains per hour) and similar flame lengths under similarly adverse conditions. The areas of thicker timber are characterized by the TU1 Fuel Model, where fire is carried by a timber understory of grass or small amounts of shrub or litter. In these fuels under even the most adverse conditions, rates of spread are predicted to be relatively low (around 10-12 chains per hour) and flame lengths at 4 feet or less.

Individual Structure Breakdown



Structures Risk Rating: Very High Average structure rating: 281

North Lake/Camp Salvation is moderately developed. There is one parcel within North Lake/Camp Salvation, and the SFPD was able to assess 25 structures. Roads leading to structures are unpaved, and structures generally have one road leading to them. Street signs and structure addresses are posted, but generally are nonreflective and combustible. Structure addresses

are inconsistently posted and generally are non-reflective and combustible. Building materials vary widely throughout North Lake/Camp Salvation. Many structures have combustible materials within 10 feet of the structure. Defensible space has been inconsistently implemented around current structures.

Protection and Management

Road accessibility for emergency responders within North Lake/Camp Salvation is moderate. The main road is Highway 12 and is paved. There are many one-lane roads and turnarounds are infrequent. There are currently no fire hydrants available within North Fork Ranch and water storage is highly available at the lake. The nearest fire district substation is Stonewall Station. There are no fire protection capabilities within North Lake/Camp Salvation, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the area. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

North Lake/Camp Salvation Homeowner Recommendations:

North Lake/Camp Salvation Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	 A local Wildfire Mitigation Advocate should be identified for the community that will assist with implementing recommended mitigation activities in coordination with the SFPD, Colorado State Forest Service and others
Roadside Thinning of HWY 12 and internal roads	2	• Thin along both sides of road in areas of heavy flammable fuel loadings. This will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing. See <i>"Fuel Break Guidelines for Forested Subdivisions & Communities"</i>
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

North Lake-Camp Salvation



PICKETWIRE



Overall Hazard and Risk

The Picketwire community is located within the western area of the Stonewall Fire Protection District north and south of Highway 2, and east and west of CR13. Picketwire encompasses 482 acres within the Stonewall Fire Protection District. The overall topography of the land is river bottom and mountainous, and the density of vegetation is low. The vegetation in the area is comprised of landscaping, grassy meadows, cottonwoods in riparian areas, ponderosa pines and pinon-juniper on hillsides.

Most of this community is surrounded by grasslands. Depending on condition and depth of grass at any given time, this could either fall under Fuel Model GS1 or GS2. If cut or under irrigation, flame lengths would be expected to be low, but tall dry grass of the GS2 Model can produce high rates of spread (greater than 100 chains per hour) and flame lengths of 6 to 8 feet. Timbered areas are mostly of the TU1 Model, where fire is carried by a timber understory of grass or small amounts of shrub or litter. In these fuels under even the most adverse conditions, rates of spread are predicted to be relatively low (around 10-12 chains per hour) and flame lengths at 4 feet or less.





Structures Risk Rating: Low Average structure rating: 139

Picketwire is highly developed. There are approximately 30 parcels within Picketwire, and the SFPD was able to assess 56 structures. Parcel size is private lot size. Roads leading to structures of generally unpaved with some paved roads adjacent Highway 12. Structures generally have one road leading to them. Street signs and structure addresses are minimally posted. Building materials vary widely

throughout Picketwire. Many structures have combustible materials within 10 feet of the structure. Defensible space has been inconsistently implemented around current structures.

Protection and Management

Road accessibility for emergency responders within Picketwire is high. The main road is Highway 12 and is paved. There are one-lane roads and turnarounds are infrequent. There are currently no fire hydrants available within Picketwire and water storage is minimally available. The nearest fire district substation is Stonewall Station. There are no fire protection capabilities within Picketwire, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the area. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

Picketwire Homeowner Recommendations:

Picketwire General Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	 A local Wildfire Mitigation Advocate should been identified for the community that will assist with implementing recommended activities in coordination with the SFPD, State Forest Service, and federal land managers as appropriate.
Roadside Thinning of internal roads	2	 Thin along both sides of road in areas of heavy flammable fuel loadings this will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing.
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

Picketwire



PINE RIDGE HIDEAWAY



Overall Hazard and Risk

The Pine Ridge Hideaway community is located within the central area of the Stonewall Fire Protection District north of Highway 12. Pine Ridge Hideaway encompasses 384 acres within the Stonewall Fire Protection District. The overall topography of the land is mountainous, and the density of vegetation is moderate. The vegetation in the area is comprised of ponderosa pine, oak shrubland, and scattered spruce-fir.

This community is located east of Big Pine Ranch and Wet Canyon. It contains forests of the TU5 Fuel Model Type, with rates of spread greater than 40 chains per hour and flame lengths greater than 15 feet under adverse conditions. In between forested lands are open grasslands of the GR2 Fuel Type, with fire carried primarily by grass and shrub litter, and corresponding predicted rates of spread greater than 100 chains per hour and flame lengths of 6 to 8 feet.

Individual Structure Breakdown



Structures Risk Rating: Low Average structure rating: 130

Pine Ridge Hideaway is minimally developed. There are approximately 11 parcels within Pine Ridge Hideaway, and the SFPD was able to assess 1 structure. Parcels range from 35-40 acres. Roads leading to structures are unpaved, and structures generally have one road leading to them. Street signs and structure addresses are minimally posted. Building materials vary widely throughout Pine Ridge Hideaway. Many

structures have combustible materials within 10 feet of the structure. Defensible space has been inconsistently implemented around current structures.

Protection and Management

Road accessibility for emergency responders within Pine Ridge Hideaway is moderate. The main road is Big Pine Ridge Road and is unpaved. There are many one-lane roads and turnarounds are infrequent. There are currently no fire hydrants available within Pine Ridge Hideaway and water storage is minimally available. The nearest fire district substation is Wet Canyon Station. There are no fire protection capabilities within Pine Ridge Hideaway, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the subdivision. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

Pine Ridge Hideaway Homeowner Recommendations:

Pine Ridge Hideaway General Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	 A local Wildfire Mitigation Advocate should be identified for the community that will assist with implementing recommended mitigation activities in coordination with the SFPD, Colorado State Forest Service and others
Roadside Thinning of Big Pine Ridge Road and internal roads	2	• Thin along both sides of road in areas of heavy flammable fuel loadings. This will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing. See <i>"Fuel Break Guidelines for Forested Subdivisions & Communities"</i>
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.
PRIMERO



Overall Hazard and Risk

The Primero community is located within the central area of the Stonewall Fire Protection District along Highway 12. Primero encompasses 1052 acres within the Stonewall Fire Protection District. The overall topography of the land is river bottom and mountainous, and the density of vegetation is moderate to low. The vegetation in the area is comprised of pinon-juniper, oak shrubland, scattered ponderosa pine, and cottonwoods with grassy meadows in riparian areas.

This community is immediately east of Weston along the Purgatoire River and Highway 12. Here, grassland closest to the Purgatoire River is of either the GR1 or GR2 Fuel Types. The GR1 Model represents short, grazed and otherwise discontinuous grass, and predicted rates of spread and flame lengths are low (less than 20 chains per hour, and a maximum of 2 feet, respectively). Greater depths of grass in the GR2 Model mean much greater rates of spread (greater than 100 chains per hour) and flame lengths (6 to 8 feet) can be expected. As the hills rise above the river valley, shrubs and grass mix in the GS1 Fuel Model, where rates of spread can exceed 80 chains per hour and flame lengths can exceed 10 feet when the vegetation is dry and weather conditions adverse. Much of the west side of this area is occupied by the Primero School, which is surrounded by well-irrigated fields, sports facilities and parking areas.





Structures Risk Rating: High Average structure rating: 206

Primero is highly developed. There are approximately 6 parcels within Primero, and the SFPD was able to assess 98 structures. Roads leading to structures are paved, and structures generally have one road leading to them. Street signs and structure addresses are generally moderately posted. Building materials vary widely throughout Primero. Many structures have combustible materials within 10 feet of the structure. Defensible space has been inconsistently implemented around current structures. The Primero School is located within this community, and should be considered a high priority in mitigating wildfire and an important community resource.

Protection and Management

Road accessibility for emergency responders within Primero is high. The main road is Highway 12 and is paved. Parcel size is less than 10 acres. There are many one-lane roads and turnarounds are infrequent. There are currently three fire hydrants available within Primero and water storage is minimally available. The nearest fire district substation is Segundo Station. There are no fire protection capabilities within Primero other than fire hydrants and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the area. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

Primero Homeowner Recommendations:

Primero General Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	 A local Wildfire Mitigation Advocate should been identified for the community that will assist with implementing recommended activities in coordination with the SFPD, State Forest Service, and federal land managers as appropriate.
Roadside Thinning of internal roads	2	 Thin along both sides of road in areas of heavy flammable fuel loadings this will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing.
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

Primero



PRIMERO RANCH



Overall Hazard and Risk

The Primero Ranch community is located within the central area of the Stonewall Fire Protection District north of Highway 12. Primero Ranch encompasses 7263 acres within the Stonewall Fire Protection District. The overall topography of the land is open grassy meadows and shrub dominated areas with steeper sections of pinion-juniper, and the density of vegetation is light to moderate. The vegetation in the area is comprised of oak shrubland, sagebrush, and scattered pinon-juniper, interspersed with grassy meadows.

This is a community north of Highway 12 and the Purgatoire River directly north of San Juan Plaza. Vegetation coverage alternates between grass and shrub mixtures at the lower elevations to pinon-juniper woodlands of varying density on the upper hillsides. Grasslands with occasional shrubs mixed together is the GR2 Fuel Model with fire carried primarily by grass and shrub litter, and corresponding predicted rates of spread greater than 100 chains per hour and flame lengths of 6 to 8 feet. Where there is a greater shrub component and fire is carried by both grass and shrubs, the GS2 Fuel Model can produce high rates of spread greater than 100 chains per hour and flame lengths of 6 to 8 feet.





Structures Risk Rating: High

Average structure rating: 251

Primero Ranch is moderately developed. There are approximately 28 parcels within Primero Ranch, and the SFPD was able to assess 54 structures. Parcels range from 35-40 acres. Roads leading to structures are unpaved, and structures generally have one road leading to them. Street signs are posted but are not reflective and are combustible. Structure addresses are minimally posted. Building

materials vary widely throughout Primero Ranch. Many structures have combustible materials within 10 feet of the structure. Defensible space has been inconsistently implemented around current structures.

Road accessibility for emergency responders within Primero Ranch is moderate. The main road is County Road 43.6 and is unpaved. There are many one-lane roads and turnarounds are infrequent. There are currently no fire hydrants available within Primero Ranch and water storage is minimally available. The nearest fire district substation is Segundo Station. There are no fire protection capabilities within Primero Ranch, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the subdivision. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

Primero Ranch Homeowner Recommendations:

Primero Ranch General Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	• A local Wildfire Mitigation Advocate should be identified for the community that will assist with implementing recommended mitigation activities in coordination with the SFPD, Colorado State Forest Service and others
Roadside Thinning of CR 43.6 and internal roads	2	• Thin along both sides of road in areas of heavy flammable fuel loadings. This will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing. See <i>"Fuel Break Guidelines for Forested Subdivisions & Communities"</i>
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

RAINBOW HEIGHTS



Overall Hazard and Risk

The Rainbow Heights community is located within the north central area of the Stonewall Fire Protection District. Rainbow Heights encompasses 118 acres within the Stonewall Fire Protection District. The overall topography of the land is mountainous, and the density of vegetation is moderate. The vegetation in the area is comprised of ponderosa pine, oak shrubland, and scattered spruce-fir.

This is a small community located in the hills above the upper reaches of Wet Canyon. Mostly forest-covered, the TU1 Fuel Model is present on drier sites, while on cooler and north-facing aspects, the TU5 Model occurs. The difference between the two types is that in the TU1 Model contains less fuel in the understory than in TU5. The TU1 Model has rates of spread predicted to be relatively low (around 10-12 chains per hour) and flame lengths at 4 feet or less, with the TU5 Model having predicted rates of spread greater than 40 chains per hour and flame lengths greater than 15 feet under adverse conditions, making control efforts difficult.





Structures Risk Rating: Very High Average structure rating: 296

Rainbow Heights is minimally developed. There are approximately 10 parcels within Rainbow Heights, and the SFPD was able to assess 10 structures. Parcel size is less than 12 acres. Roads leading to structures are unpaved, and structures generally have one road leading to them. Street signs and structure addresses are minimally posted. Building materials vary widely throughout Rainbow Heights. Many structures

have combustible materials within 10 feet of the structure. Defensible space has been inconsistently implemented around current structures.

Road accessibility for emergency responders within Rainbow Heights is poor. The main road is County Road 31.9 and is unpaved. There are many one-lane roads and turnarounds are infrequent. There are currently no fire hydrants available within Rainbow Heights and water storage is minimally available. The nearest fire district substation is Wet Canyon Station. There are no fire protection capabilities within Rainbow Heights, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the subdivision. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

Rainbow Heights Homeowner Recommendations:

Rainbow Heights General Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	 A local Wildfire Mitigation Advocate should be identified for the community that will assist with implementing recommended mitigation activities in coordination with the SFPD, Colorado State Forest Service and others
Roadside Thinning of CR 31.9 and internal roads	2	• Thin along both sides of road in areas of heavy flammable fuel loadings. This will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing. See <i>"Fuel Break Guidelines for Forested Subdivisions & Communities"</i>
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

RANCHO ESCONDIDO



Overall Hazard and Risk

The Rancho Escondido community is located within the north western area of the Stonewall Fire Protection District north of Highway 12. Rancho Escondido encompasses 2700 acres within the Stonewall Fire Protection District. The overall topography of the land is mountainous, and the density of vegetation is moderate. The vegetation in the area is comprised of ponderosa pine, oak shrubland, and scattered spruce-fir, with pinon-juniper in the lower elevations.

This community is located north of Highway 12 along and to the east of Santistevan Canyon. Lower areas within the canyon contain a mixture of grass and shrubs and are mostly of the SH1 Fuel Model, a mixture of shrubs and grass that have predicted rates of spread and flame lengths that are low (less than 3 chains per hour and 2 feet). However, increased amounts of grass will result in higher rates of spread, and thick shrub cover will increase flame lengths and corresponding suppression difficulty. There are several "timber understory" (TU) Fuel Types present at higher elevations, with the predominant and highest density forests falling into the TU5 Model. Here, predicted rates of spread are greater than 40 chains per hour and flame lengths greater than 15 feet under adverse conditions, making control efforts difficult.

Individual Structure Breakdown



Structures Risk Rating: High Average structure rating: 234

Rancho Escondido is moderately developed. There are approximately 70 parcels within Rancho Escondido, and the SFPD was able to assess 63 structures. Parcels range from 35-40 acres. Roads leading to structures are unpaved, and structures generally have one road leading to them. Street signs and structure addresses are posted, but generally are reflective and noncombustible. Structure addresses are

minimally posted. Building materials vary widely throughout Rancho Escondido. Many structures have combustible materials within 10 feet of the structure. Defensible space has been inconsistently implemented around current structures.

Road accessibility for emergency responders within Rancho Escondido is moderate. The main road is County Road 23.3 and is unpaved. There are many one-lane roads and turnarounds are infrequent. There are currently no fire hydrants available within Rancho Escondido and water storage is seasonably available on an adjacent property. The nearest fire district substation is Stonewall Station. There are no fire protection capabilities within Rancho Escondido, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the subdivision. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

Rancho Escondido Homeowner Recommendations:

Rancho Escondido General Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	 A local Wildfire Mitigation Advocate should be identified for the community that will assist with implementing recommended mitigation activities in coordination with the SFPD, Colorado State Forest Service and others
Roadside Thinning of CR 23.3 and internal roads	2	• Thin along both sides of road in areas of heavy flammable fuel loadings. This will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing. See <i>"Fuel Break Guidelines for Forested Subdivisions & Communities"</i>
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

RANCHO LA GARITA



Overall Hazard and Risk

The Rancho La Garita community is located within the north central area of the Stonewall Fire Protection District north of Highway 12. Rancho La Garita encompasses 6491 acres within the Stonewall Fire Protection District and is divided by CR 41.7 into North and South sections. The overall topography of the land is mountainous, and the density of vegetation is moderate. The vegetation in the area is comprised of ponderosa pine, pinon-juniper, and oak shrubland, interspersed with grassy meadows.

Most of this large area is classified as the TU5 Fuel Model, which is characterized by Scott and Burgan (2005) as "heavy forest litter with a shrub or small tree understory." Predicted rates of spread are moderate, but under dry windy conditions may be greater than 40 chains per hour. Flame lengths are also moderate, but under dry windy conditions may be greater than 15 feet, making control efforts very difficult. To a lesser extent and on dry aspects, the SH1 Fuel Model is present, with characteristic very low flame lengths and rates of spread. However, as the amounts of grass increase, rates of spread will correspondingly increase.





Structures Risk Rating: High Average structure rating: 233

Rancho La Garita is highly developed. There are approximately 520 parcels within Rancho La Garita, and the SFPD was able to assess 251 structures. Parcel size is less than 12 acres. Roads leading to structures are unpaved, and structures generally have two roads leading to them in South La Garita and one road leading to them in North La Garita. Street signs are posted and are reflective and noncombustible. Structure

addresses are moderately posted, and may or may not be reflective and noncombustible. Building materials vary widely throughout Rancho La Garita. Many structures have combustible materials within 10 feet of the structure. Defensible space has been inconsistently implemented around current structures.

Road accessibility for emergency responders within Rancho La Garita is moderate. The main road is CR 41.7 and CR 30.1 and is unpaved. There are many one-lane roads and turnarounds are infrequent. There are currently no fire hydrants available within Rancho La Garita and water storage is minimally available. The nearest fire district substation is La Garita Station. There are no fire protection capabilities within Rancho La Garita, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the subdivision. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

Rancho La Garita Homeowner Recommendations:

Rancho La Garita General Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	• A local Wildfire Mitigation Advocate should be identified for the community that will assist with implementing recommended mitigation activities in coordination with the SFPD, Colorado State Forest Service and others
Roadside Thinning of CR 41.7 and CR 30.1 and internal roads	2	• Thin along both sides of road in areas of heavy flammable fuel loadings. This will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing. See <i>"Fuel Break Guidelines for Forested Subdivisions & Communities"</i>
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

RIVER RANCH LONG CANYON



Overall Hazard and Risk

The River Ranch Long Canyon community is located within the eastern area of the Stonewall Fire Protection District south of Highway 12. River Ranch Long Canyon encompasses 1414 acres within the Stonewall Fire Protection District. The overall topography of the land is mountainous, and the density of vegetation is moderate. The vegetation in the area is comprised of pinon-juniper, oak shrubland, scattered ponderosa pine, and cottonwood in riparian areas, interspersed with grassy meadows.

This community is located at the mouth of Long Canyon and rises westward. Lower areas fall into the SH1 Fuel Model, a mixture of shrubs and grass that have predicted rates of spread and flame lengths that are low (less than 3 chains per hour and 2 feet). However, increased amounts of grass will result in higher rates of spread, and thick shrub cover will increase flame lengths and corresponding suppression difficulty. Upper areas contain a mix of TU1 and TL3 Fuel Models within the forests present. The TU1 Model is present on drier aspects, where fire is carried primarily by grass or shrubs in the understory, and rates of spread are predicted to be relatively low (around 10-12 chains per hour) and flame lengths at 4 feet or less. On cooler aspects (north to northeast facing), the forest overstory tends to be thicker, and the Fuel Model here is TL3, where fire is carried primarily by dried needles and small branches. Fires here are predicted to spread slowly (less than 6 chains per hour) and flame lengths are low (less than 2 feet). Because of the denser crown fuels present, a greater potential exists here for dangerous crown fires to develop and persist under extreme weather conditions.

Individual Structure Breakdown



Structures Risk Rating: Low Average structure rating: 125

River Ranch Long Canyon is moderately developed. There are approximately 36 parcels within River Ranch Long Canyon, and the SFPD was able to assess 20 structures. Parcels range from 35-40 acres. Roads leading to structures are unpaved, and structures generally have one road leading to them. Street signs and structure addresses are minimally posted. Building materials vary widely throughout River Ranch Long Canyon. Many structures have combustible materials within 10 feet of the structure. Defensible space has been inconsistently implemented.

Protection and Management

Road accessibility for emergency responders within River Ranch Long Canyon is moderate. The main road is CR 53.1 and is unpaved. There are many one-lane roads and turnarounds are infrequent. There are currently no fire hydrants available and water storage is minimally available. The nearest fire district substation is Long Canyon Station. There are no fire protection capabilities within River Ranch Long Canyon, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the subdivision. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

River Ranch Long Canyon Homeowner Recommendations:

River Ranch Long Canyon General Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	• A local Wildfire Mitigation Advocate should be identified for the community that will assist with implementing recommended mitigation activities in coordination with the SFPD, Colorado State Forest Service and others
Roadside Thinning of CR 53.1 and internal roads	2	• Thin along both sides of road in areas of heavy flammable fuel loadings. This will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing. See <i>"Fuel Break Guidelines for Forested Subdivisions & Communities"</i>
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

ROBINSON TRACTS



Overall Hazard and Risk

The Robinson Tracts community is located within the north central area of the Stonewall Fire Protection District north of Highway 12. Robinson Tracts encompasses 606 acres within the Stonewall Fire Protection District. The overall topography of the land is mountainous, and the density of vegetation is moderate. The vegetation in the area is comprised of ponderosa pine, oak shrubland, and scattered spruce-fir, interspersed with grassy meadows.

This community is positioned within Wet Canyon and extends to the adjacent hills toward the east. Parcels which reach the canyon lowlands contain grasslands of the GR2 Fuel Model, with predicted rates of spread greater than 100 chains per hour and flame lengths of 6 to 8 feet. The majority of the area is covered in forests best represented by the TU5 Fuel Model, with predicted rates of spread greater than 40 chains per hour and flame lengths greater than 15 feet under adverse conditions, making control efforts difficult.

Individual Structure Breakdown



Structures Risk Rating: Low Average structure rating: 149

Robinson Tracts is minimally developed. There are approximately 13 parcels within Robinson Tracts, and the SFPD was able to assess 33 structures. Parcels range from 35-40 acres. Roads leading to structures are unpaved, and structures generally have one road leading to them. Street signs and structure addresses are minimally posted. Building materials vary widely throughout Robinson Tracts. Many structures

have combustible materials within 10 feet of the structure. Defensible space has been inconsistently implemented around current structures.

Road accessibility for emergency responders within Robinson Tracts is moderate. The main road is County Road 32.5 and CR 31.9 and both are unpaved. There are many one-lane roads and turnarounds are infrequent. There are currently no fire hydrants available within Robinson Tracts and water storage is minimally available. The nearest fire district substation is Wet Canyon Station. There are no fire protection capabilities within Robinson Tracts, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the subdivision. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

Robinson Tracts Homeowner Recommendations:

Robinson Tracts General Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	• A local Wildfire Mitigation Advocate should be identified for the community that will assist with implementing recommended mitigation activities in coordination with the SFPD, Colorado State Forest Service and others
Roadside Thinning of CR 32.5 and internal roads	2	• Thin along both sides of road in areas of heavy flammable fuel loadings. This will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing. See <i>"Fuel Break Guidelines for Forested Subdivisions & Communities"</i>
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

SAN JUAN PLAZA



Overall Hazard and Risk

The San Juan Plaza community is located within the central area of the Stonewall Fire Protection District along Highway 12. The San Juan Plaza encompasses 315 acres within the Stonewall Fire Protection District. The overall topography of the land is river bottom and hills, and the density of vegetation is low. The vegetation in the area is comprised of cottonwoods in riparian areas, grassy meadows, and landscaping.

This community lies along Highway 12, west of Segundo and is mostly confined to the lands adjacent to the Purgatoire River. The grasslands above the river and associated riparian vegetation are classified as either GR1 or GR2, with the difference being the depth and amount of grass present. Since the GR1 Model represents short, grazed and otherwise discontinuous grass, predicted rates of spread and flame lengths are low for grass types (less than 20 chains per hour, and a maximum of 2 feet, respectively). Greater depths and amounts of grass in the GR2 Model mean much greater rates of spread (greater than 100 chains per hour) and flame lengths (6 to 8 feet) can be expected. Further away from the river, the vegetation transitions to a grass-shrub type where both grass and shrubs can be expected to carry fire. In the GS1 Fuel Model found in this community, rates of spread can exceed 80 chains per hour and flame lengths can exceed 10 feet when the vegetation is dry and weather conditions adverse.



Structures Risk Rating: Low Average structure rating: 148

San Juan Plaza is highly developed. There are approximately 65 parcels within San Juan Plaza, and the SFPD was able to assess 124 structures. Parcel size is mostly private lot size. Roads leading to structures are unpaved, and structures generally have one road leading to them. Street signs are posted and are reflective and noncombustible. Structure addresses are minimally posted. Building materials vary widely

throughout San Juan Plaza. Many structures have combustible materials within 10 feet

of the structure. Defensible space has been inconsistently implemented around current structures.

Protection and Management

Road accessibility for emergency responders within San Juan Plaza is high. The main road is Highway 12 and is paved. There are many one-lane roads and turnarounds are infrequent. There is currently one fire hydrant available within San Juan Plaza and water storage is minimally available. The nearest fire district substation is the Segundo Station. There are no fire protection capabilities within San Juan Plaza, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the subdivision. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

San Juan Plaza Homeowner Recommendations:

San Juan Plaza General Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	• A local Wildfire Mitigation Advocate should been identified for the community that will assist with implementing recommended activities in coordination with the SFPD, State Forest Service, and federal land managers as appropriate.
Roadside Thinning of internal roads	2	 Thin along both sides of road in areas of heavy flammable fuel loadings this will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing.
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

SAN PABLO CANYON RANCH



Overall Hazard and Risk

The San Pablo Canyon Ranch community is located within the north central area of the Stonewall Fire Protection District north of Highway 12. San Pablo Canyon Ranch encompasses 2255 acres within the Stonewall Fire Protection District. The overall topography of the land is mountainous, and the density of vegetation is moderate. The vegetation in the area is comprised of ponderosa pine, spruce-fir, and oak shrubland interspersed with grassy meadows.

This community is found in and around San Pablo Canyon, which departs the middle of Wet Canyon and travels upward to the northwest. The lower areas contain a mixture of grass and shrub coverage, most of which falls into the SH1 Fuel Model, comprised mostly of shrubs interspersed with grass. While predicted rates of spread and flame lengths are low (less than 3 chains per hour and 2 feet) in this fuel model, increased amounts of grass will result in higher rates of spread, and thick shrub cover will increase flame lengths and corresponding suppression difficulty. Most upland areas are forested and are of the TU5 Fuel Model, with predicted rates of spread greater than 40 chains per hour and flame lengths greater than 15 feet under adverse conditions, making control efforts difficult.

Individual Structure Breakdown



Structures Risk Rating: High Average structure rating: 267

San Pablo Canyon Ranch is moderately developed. There are approximately 62 parcels within San Pablo Canyon Ranch, and the SFPD was able to assess 42 structures. Parcels range from 35-40 acres. Roads leading to structures are unpaved, and structures generally have one road leading to them. Street signs are posted and are reflective but combustible. Structure addresses are generally minimally posted. Building materials

vary widely throughout San Pablo Canyon Ranch. Many structures have combustible materials within 10 feet of the structure. Defensible space has been inconsistently implemented around current structures.

Road accessibility for emergency responders within San Pablo Canyon Ranch is moderate. The main road is San Pablo Canyon Road and is unpaved. There are many one-lane roads and turnarounds are infrequent. There are currently no fire hydrants available within San Pablo Canyon Ranch and water storage is minimally available. The nearest fire district substation is Wet Canyon Station. There are no fire protection capabilities within San Pablo Canyon Ranch, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the subdivision. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

San Pablo Canyon Ranch Homeowner Recommendations:

San Pablo Canyon Ranch General Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	• A local Wildfire Mitigation Advocate should be identified for the community that will assist with implementing recommended mitigation activities in coordination with the SFPD, Colorado State Forest Service and others
Roadside Thinning of San Pablo Canyon Road and internal roads	2	• Thin along both sides of road in areas of heavy flammable fuel loadings. This will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing. See <i>"Fuel Break Guidelines for Forested Subdivisions & Communities"</i>
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

San Pablo Canyon Ranch


SEGUNDO/VALDEZ



Overall Hazard and Risk

The Segundo/Valdez community is located within the central area of the Stonewall Fire Protection District along Highway 12. Segundo/Valdez encompasses 326 acres within the Stonewall Fire Protection District. The overall topography of the land is river bottom and hills, and the density of vegetation is low. The vegetation in the area is comprised of landscaping, grassy meadows, and cottonwoods in riparian areas.

Segundo/Valdez is immediately east of San Juan Plaza along Highway 12, and most area is near the Purgatoire River. The grasslands above the river and associated riparian vegetation are classified as either GR1 or GR2, with the difference being the depth and amount of grass present. Since the GR1 Model represents short, grazed and otherwise discontinuous grass, predicted rates of spread and flame lengths are low for grass types (less than 20 chains per hour, and a maximum of 2 feet, respectively). Greater depths and amounts of grass in the GR2 Model mean much greater rates of spread (greater than 100 chains per hour) and flame lengths (6 to 8 feet) can be expected. Further from the river, the vegetation transitions to a grass-shrub type (GS1) where both grass and shrubs can be expected to carry fire. In the GS1 Fuel Model found in this community, rates of spread can exceed 80 chains per hour and flame lengths can exceed 10 feet when the vegetation is dry and weather conditions adverse.



Structures Risk Rating: Moderate Average structure rating: 151

Segundo/Valdez is highly developed. There are approximately 102 parcels within Segundo/Valdez, and the SFPD was able to assess 212 structures. Parcel size is mostly private lot size. Roads leading to structures are paved, and structures generally have one road leading to them. Street signs are posted and are reflective and noncombustible. Structure addresses are minimally posted. Building materials vary widely throughout Segundo/Veldez. Many structures have combustible materials within 10 feet of the structure. Defensible space has been inconsistently implemented around current structures.

Protection and Management

Road accessibility for emergency responders within Segundo/Valdez is high. The main road is Highway 12 and is paved. There are one-lane roads and turnarounds are infrequent. There are currently no fire hydrants available within Segundo/Valdez and water storage is minimally available. The nearest fire district substation is Segundo/Valdez Station. There are no fire protection capabilities within Segundo/Valdez, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the area. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

Segundo/Valdez Homeowner Recommendations:

Segundo/Veldez General Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	• A local Wildfire Mitigation Advocate should been identified for the community that will assist with implementing recommended activities in coordination with the SFPD, State Forest Service, and federal land managers as appropriate.
Roadside Thinning of internal roads	2	 Thin along both sides of road in areas of heavy flammable fuel loadings this will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing.
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

SHAFERS ESTATES/WHISKEY CREEK



Overall Hazard and Risk

The Shafers Estates/Whiskey Creek community is located within the north western area of the Stonewall Fire Protection District along Highway 12. Shafers Estates/Whiskey Creek encompasses 1055 within the Stonewall Fire Protection District. The overall topography of the land is mountainous, and the density of vegetation is high. The vegetation in the area is comprised of ponderosa pine, spruce-fir, oak shrubland, and scattered aspen.

Located south of Monument Lake and west of Highway 12, this community contains much forested land characterized as the TU5 Fuel Model, with moderate predicted rates of spread, but under dry windy conditions may be greater than 40 chains per hour. Flame lengths are also moderate, but under dry windy conditions may be greater than 15 feet, making control efforts very difficult. More open areas contain grass and shrub components, with the SH5 Fuel Model predicting high rates of spread (greater than 100 chains per hour) and high flame lengths (in excess of 15 feet) contributing to control difficulties.





Structures Risk Rating: Extreme Average structure rating: 396

Shafers Estates/Whiskey Creek is moderately developed. There are approximately 20 parcels within Shafers Estates/Whiskey Creek, and the SFPD was able to assess 28 structures. Roads leading to structures are unpaved, and structures generally have one road leading to them. Street signs and structure addresses are minimally posted. Building materials vary widely throughout Shafers Estates/Whiskey Creek. Many structures

have combustible materials within 10 feet of the structure. Defensible space has been inconsistently implemented around current structures.

Road accessibility for emergency responders within Shafers Estates/Whiskey Creek is poor. The main road is Highway 12 and is paved. There are many one-lane roads and turnarounds are infrequent. There are currently no fire hydrants available within Shafers Estates/Whiskey Creek and water storage is minimally available. The nearest fire district substation is Stonewall Station. There are no fire protection capabilities within Shafers Estates/Whiskey Creek, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the subdivisions. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

Shafers Estates/Whiskey Creek Homeowner Recommendations:

Shafers Estates/Whiskey Creek General Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	 A local Wildfire Mitigation Advocate should been identified for the community that will assist with implementing recommended activities in coordination with the SFPD, State Forest Service, and federal land managers as appropriate.
Roadside Thinning of Highway 12 and internal roads	2	 Thin along both sides of road in areas of heavy flammable fuel loadings this will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing.
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

STONEWALL



Overall Hazard and Risk

The Stonewall community is located within the western area of the Stonewall Fire Protection District along Highway 12. Stonewall encompasses 588 acres within the Stonewall Fire Protection District. The overall topography of the land is river bottom and grassy meadows, and the density of vegetation is low to moderate. The vegetation in the area is comprised of ponderosa pine, grassy meadows, with cottonwoods in riparian areas.

Most of the immediate area within and surrounding the community of Stonewall is surrounded by grasslands of the GR1 Fuel Model, with low predicted rates of spread and flame lengths (less than 20 chains per hour, and a maximum of 2 feet, respectively). The forested areas within this community are primarily of the TU5 Fuel Model, with predicted rates of spread which could exceed 40 chains per hour and flame lengths greater than 15 feet under adverse weather conditions.

Individual Structure Breakdown



Structures Risk Rating: High Average structure rating: 220

Stonewall is highly developed. There are approximately 109 parcels within Stonewall, and the SFPD was able to assess 220 structures. Parcel size is mostly private lot size. Roads leading to structures are unpaved, and structures generally have one road leading to them. Street signs and structure addresses are minimally posted. Building materials vary widely throughout Stonewall. Many structures have combustible

materials within 10 feet of the structure. Defensible space has been inconsistently implemented around current structures.

Road accessibility for emergency responders within Stonewall is moderate. The main road is Highway 12 and is paved. There are one-lane roads and turnarounds are infrequent. There are currently no fire hydrants available within Stonewall and water storage is minimally available. The nearest fire district substation is Stonewall Station. There are no fire protection capabilities within Stonewall, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the subdivisions. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

Stonewall Homeowner Recommendations:

Stonewall General Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	 A local Wildfire Mitigation Advocate should been identified for the community that will assist with implementing recommended activities in coordination with the SFPD, State Forest Service, and federal land managers as appropriate.
Roadside Thinning of Highway 12 and internal roads	2	 Thin along both sides of road in areas of heavy flammable fuel loadings this will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing.
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

Stonewall Community



TIMBER RIDGE



Overall Hazard and Risk

The Timber Ridge community is located within the north central area of the Stonewall Fire Protection District north of Highway 12. Timber Ridge encompasses 760 acres within the Stonewall Fire Protection District. The overall topography of the land is mountainous, and the density of vegetation is moderate. The vegetation in the area is comprised of ponderosa pine, oak shrubland, and scattered spruce-fir.

This community is found on the west side of Wet Canyon, and similar to Cougar Ridge to its immediate north, contains an abundance of ponderosa pine forests and is of the TU5 Fuel Model common in the area, with moderate predicted rates of spread, but under dry windy conditions may be greater than 40 chains per hour. Flame lengths are also moderate, but under dry windy conditions may be greater than 15 feet, making control efforts very difficult. Less common grass-covered areas are of the GR1 Fuel Model, with moderate rates of spread (40-80 chains per hour) but low flame lengths (5-7 feet) under adverse weather conditions.



Structures Risk Rating: Very High Average structure rating: 292

Timber Ridge is moderately developed. There are approximately 23 parcels within Timber Ridge, and the SFPD was able to assess 14 structures. Parcels range from 35-40 acres. Roads leading to structures are unpaved, and structures generally have one road leading to them. Street signs and structure addresses are minimally posted. Building materials vary widely throughout Timber Ridge. Many structures have

combustible materials within 10 feet of the structure. Defensible space has been inconsistently implemented around current structures.

Road accessibility for emergency responders within Timber Ridge is moderate. The main road is Timber Ridge Road and is unpaved. There are one-lane roads and turnarounds are infrequent. There are currently no fire hydrants available within Timber Ridge and water storage is minimally available. The nearest fire district substation is Wet Canyon Station. There are no fire protection capabilities within Timber Ridge, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the subdivision. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

Timber Ridge Homeowner Recommendations:

Timber Ridge General Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	 A local Wildfire Mitigation Advocate should be identified for the community that will assist with implementing recommended mitigation activities in coordination with the SFPD, Colorado State Forest Service and others
Roadside Thinning of Timber Ridge Road and internal roads	2	• Thin along both sides of road in areas of heavy flammable fuel loadings. This will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing. See <i>"Fuel Break Guidelines for Forested Subdivisions & Communities"</i>
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

TORRES/SAN FRANCISCO PASS



Overall Hazard and Risk

The Torres/San Francisco Pass community is located within the southwestern area of the Stonewall Fire Protection District south of Highway 12. The Torres/San Francisco Pass encompasses 15376 acres within the Stonewall Fire Protection District. The overall topography of the land is mountainous, and the density of vegetation is moderate to high. The vegetation in the area is comprised of ponderosa pine, spruce-fir, and aspen, interspersed with grassy meadows.

This large area encompasses much of the southwest corner of the Stonewall Fire Protection District. Most forests found here are mixed conifer types and on drier sites contain mostly ponderosa pine. Both types fall into the TU5 Fuel Model, with moderate predicted rates of spread, but under dry windy conditions may be greater than 40 chains per hour. Flame lengths are also moderate, but under dry windy conditions may be greater than 15 feet, making control efforts very difficult. Lower lying areas are mostly of the short or sparse grass model GR1, representing short, grazed and otherwise discontinuous grass, with low predicted rates of spread and flame lengths (less than 20 chains per hour, and a maximum of 2 feet, respectively). As grass transitions to forest, some grass-shrub fuel types occur, and both the GS1 and GS2 Fuel Models can have high rates of spread exceeding 60 chains per hour, plus flame lengths exceeding 6 feet under adverse weather conditions.





Structures Risk Rating: Moderate Average structure rating: 172

Torres/San Francisco Pass is minimally developed. There are approximately 30 parcels within Torres/San Francisco Pass, and the SFPD was able to assess 72 structures. Parcel size is Torres is less than 50 acres, while parcel size in San Francisco Pass is mostly large ranch holdings. Roads leading to structures are unpaved, and structures generally have one road leading to them. Street signs are posted and are

reflective and noncombustible. Structure addresses are minimally posted and building

materials vary widely. Many structures have combustible materials within 10 feet of the structure. Defensible space has been inconsistently implemented.

Protection and Management

Road accessibility for emergency responders within Torres/San Francisco Pass is moderate. The main roads are CR 13, CR 7, and San Francisco Pass Rd (formerly CR 5) and are unpaved. There are many one-lane roads and turnarounds are infrequent. There are currently no fire hydrants available within Torres/San Francisco Pass and water storage is minimally available. The nearest fire district substation is Stonewall Station. There are no fire protection capabilities within Torres/San Francisco Pass, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the area. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

Torres/San Francisco Pass Homeowner Recommendations:

Torres/San Francisco Pass General Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	• A local Wildfire Mitigation Advocate should been identified for the community that will assist with implementing recommended activities in coordination with the SFPD, State Forest Service, and federal land managers as appropriate.
Roadside Thinning of CR 13, CR 7, San Francisco Pass Rd (formerly CR5) and internal roads	2	 Thin along both sides of road in areas of heavy flammable fuel loadings this will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing.
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

TRINIDAD LAKE ESTATES



Overall Hazard and Risk

The Trinidad Lake Estates community is located within the eastern area of the Stonewall Fire Protection District south of Highway 12. The Trinidad Lake Estates encompasses 935 acres within the Stonewall Fire Protection District. The overall topography of the land is mountainous, and the density of vegetation is moderate. The vegetation in the area is comprised of pinon-juniper, oak shrubland, and scattered ponderosa pine interspersed with grassy meadows.

This community is located within Long Canyon and westward up the adjacent hills. The upper forests are mostly a TL3 Fuel Model, where fire is most often carried by the materials deposited on the ground, and predicted rates of spread are less than 5 chains per hour and flame lengths of less than 2 feet. However, where litter accumulations are thicker or shrubs and small trees are present in the understory, flame lengths would be expected to be much greater. To a lesser extent, areas with mostly grass cover fit the GR1 Fuel Model, with moderate rates of spread (40-80 chains per hour) but low flame lengths (5-7 feet) under adverse weather conditions. Where hills begin to rise from the canyon, long stretches of the TU1 Model occur, where fire is carried by a timber understory of grass or small amounts of shrub or litter. In these fuels under even the most adverse conditions, rates of spread are predicted to be relatively low (around 10-12 chains per hour) and flame lengths at 4 feet or less.





Structures Risk Rating: High Average structure rating: 193

Trinidad Lake Estates is moderately developed. There are approximately 20 parcels within Trinidad Lake Estates, and the SFPD was able to assess 14 structures. Parcels range from 35-40 acres. Roads leading to structures are unpaved, and structures generally have one road leading to them. Street signs and structure addresses are minimally posted. Building materials vary widely throughout Trinidad Lake Estates. Many structures have combustible materials within 10 feet of the structure. Defensible space has been inconsistently implemented around current structures.

Protection and Management

Road accessibility for emergency responders within Trinidad Lake Estates is moderate. The main road is 53.1 and is unpaved. There are many one-lane roads and turnarounds are infrequent. There are currently no fire hydrants available within Trinidad Lake Estates and water storage is minimally available. The nearest fire district substation is Long Canyon Station. There are no fire protection capabilities within Trinidad Lake Estates, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the subdivision. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

Trinidad Lake Estates Homeowner Recommendations:

Trinidad Lake Estates General Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	• A local Wildfire Mitigation Advocate should be identified for the community that will assist with implementing recommended mitigation activities in coordination with the SFPD, Colorado State Forest Service and others
Roadside Thinning of 53.1 and internal roads	2	• Thin along both sides of road in areas of heavy flammable fuel loadings. This will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing. See <i>"Fuel Break Guidelines for Forested Subdivisions & Communities"</i>
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

VIGIL PLAZA



Overall Hazard and Risk

The Vigil Plaza community is located within the west area of the Stonewall Fire Protection District north of Highway 12. Vigil Plaza encompasses 62 acres within the Stonewall Fire Protection District. The overall topography of the land is rolling hills and mountainous and the density of vegetation is low. The vegetation in the area is comprised of ponderosa pine and grassy meadows with scattered pinon-juniper.

This community is located just east of where the North Fork Purgatoire Canyon joins the Picketwire Valley. Lower levels are covered with short grasses, characterized as the GS1 Fuel Model. Since this model represents short, grazed and otherwise discontinuous grass, predicted rates of spread and flame lengths are low (less than 20 chains per hour, and a maximum of 2 feet, respectively). Higher on the hills, the Fuel Type is mostly GS2, where fire is carried primarily by grass and shrub litter, and predicted rates of spread can exceed 100 chains per hour and flame lengths may reach 6 to 8 feet under adverse conditions.





Structures Risk Description: Low Average structure rating: 128

Vigil Plaza is moderately developed. There are 28 of parcels within Vigil Plaza, and the SFPD was able to assess 29 structures. Parcels are less than 5 acres. Roads leading to structures are unpaved, and structures generally have one road leading to them. Street signs are posted and are reflective and noncombustible. Structure addresses are minimally posted. Building materials vary widely throughout Vigil Plaza.

Many structures have combustible materials within 10 feet of the structure. Defensible space has been inconsistently implemented around current structures.

Road accessibility for emergency responders within Vigil Plaza is high. The main road is County Road 23.2 and is unpaved. There are one-lane roads and turnarounds are infrequent. There are currently no fire hydrants available within Vigil Plaza and water storage is minimally available. The nearest fire district substation is Stonewall Station. There are no fire protection capabilities within Vigil Plaza, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the subdivision. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

Vigil Plaza Homeowner Recommendations:

Vigil Plaza General Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	 A local Wildfire Mitigation Advocate should been identified for the community that will assist with implementing recommended activities in coordination with the SFPD, State Forest Service, and federal land managers as appropriate.
Roadside Thinning of CR 23.2 and internal roads	2	 Thin along both sides of road in areas of heavy flammable fuel loadings this will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing.
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

WEST DISTRICT



Overall Hazard and Risk

The West District community is located within the western area of the Stonewall Fire Protection District east and west of Highway 12. The West District encompasses 69673 acres within the Stonewall Fire Protection District. The overall topography of the land is mountainous, and the density of vegetation is high. The vegetation in the area is comprised of spruce-fir, ponderosa pine, oak shrubland, and aspen, interspersed with grassy meadows.

Most of this very large area is classified as the TU5 Fuel Model, which is characterized by Scott and Burgan (2005) as "heavy forest litter with a shrub or small tree understory." Predicted rates of spread are moderate, but under dry windy conditions may be greater than 40 chains per hour. Flame lengths are also moderate, but under dry windy conditions may be greater than 15 feet, making control efforts very difficult. Another common fuel type throughout the district is TL8, which is characterized by "moderate load long-pine litter" with similar rates of spread as the TU5 model, but predicted flame lengths of less than 10 feet even with adverse weather.

Individual Structure Breakdown



Structures Risk Rating: High Average structure rating: 226

West District is minimally developed. There are approximately 7 parcels within West District, and the SFPD was able to assess 8 structures. Parcel size is mostly large ranch holdings. Roads leading to structures are unpaved, and structures generally have one road leading to them. Street signs are posted and are reflective and noncombustible. Structure addresses are minimally posted. Building materials vary widely

throughout West District. Many structures have combustible materials within 10 feet of the structure. Defensible space has been inconsistently implemented around current structures.

Road accessibility for emergency responders within West District is moderate. The main road is Highway 12 and is paved. There are some one-lane roads and turnarounds are infrequent. There are currently no fire hydrants available within West District and water storage is minimally available. The nearest fire district substation is Stonewall or Cucharas Pass Station. There are no fire protection capabilities within West District, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the area. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

West District Homeowner Recommendations:

West District General Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	• A local Wildfire Mitigation Advocate should been identified for the community that will assist with implementing recommended activities in coordination with the SFPD, State Forest Service, and federal land managers as appropriate.
Roadside Thinning of Highway 12 and internal roads	2	 Thin along both sides of road in areas of heavy flammable fuel loadings this will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing.
Fuel Breaks	3	• Create fuel break along western edge of West District (see map) to serve as anchor point for fire suppression activities. See <i>Fuel Break</i> <i>Guidelines for Forested Subdivisions & Communities</i> in Appendix
Preparedness Training/ Evacuation	4	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	5	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

WESTON



Overall Hazard and Risk

The Weston community is located within the western area of the Stonewall Fire Protection District along Highway 12. Weston encompasses 946 acres within the Stonewall Fire Protection District. The overall topography of the land is river bottom and hills, and the density of vegetation is low. The vegetation in the area is comprised of pinon-juniper, oak shrubland, scattered ponderosa pine, and cottonwoods with grassy meadows in riparian areas.

Most grassland closest to the Purgatoire River in this community is of either the GR1 or GR2 Fuel Types. The GR1 Model represents short, grazed and otherwise discontinuous grass, and predicted rates of spread and flame lengths are low (less than 20 chains per hour, and a maximum of 2 feet, respectively). Greater depths and amounts of grass in the GR2 Model mean much greater rates of spread (greater than 100 chains per hour) and flame lengths (6 to 8 feet) can be expected. As the hills begin to rise above the river valley, shrubs and grass mix in the GS1 Fuel Model, where rates of spread can exceed 80 chains per hour and flame lengths can exceed 10 feet when the vegetation is dry and weather conditions adverse.





Structures Risk Rating: High Average structure rating: 177

Weston is highly developed. There are approximately 85 parcels within Weston, and the SFPD was able to assess 129 structures. Parcel size is mostly private lot size. Roads leading to structures are unpaved, and structures generally have one road leading to them. Street signs are posted and are reflective and noncombustible. Structure addresses are minimally posted. Building materials vary widely throughout

Weston. Many structures have combustible materials within 10 feet of the structure. Defensible space has been inconsistently implemented around current structures.

Road accessibility for emergency responders within Weston is high. The main road is Highway 12 and is paved. There are one-lane roads and turnarounds are infrequent. There are currently no functioning fire hydrants available within Weston and water storage is minimally available. The nearest fire district substation is Wet Canyon Station. There are no fire protection capabilities within Weston, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the area. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

Weston Homeowner Recommendations:

Weston General Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	 A local Wildfire Mitigation Advocate should been identified for the community that will assist with implementing recommended activities in coordination with the SFPD, State Forest Service, and federal land managers as appropriate.
Roadside Thinning of internal roads	2	 Thin along both sides of road in areas of heavy flammable fuel loadings this will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing.
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

Weston


WET CANYON RANCH



Overall Hazard and Risk

The Wet Canyon Ranch community is located within the north central area of the Stonewall Fire Protection District north of Highway 12. Wet Canyon Ranch encompasses 222 acres within the Stonewall Fire Protection District. The overall topography of the land is mountainous and the density of vegetation is low. The vegetation in the area is comprised of pinon-juniper with grassy meadows.

This community in located directly above and to the north of Weston along the Wet Canyon Road (CR 39.1). The vegetation on the slopes is either a grass-shrub mixture (GS1) or a predominantly shrub fuel type (SH1). In the GS1 Fuel Model, rates of spread can exceed 80 chains per hour and flame lengths can exceed 10 feet when the vegetation is dry and weather conditions adverse. The SH1 Model has fairly sparse shrub cover with grass or low loads of litter in the understory, and correspondingly low rates of spread (2-3 chains per hour) and flame lengths (less than 1 foot) under adverse weather conditions. In areas where shrub densities and the amount of litter in the understory increase, flame lengths and rates of spread will predictably increase.





Structures Risk Rating: Moderate Average structure rating: 157

Wet Canyon Ranch is minimally developed. There is one parcel within Wet Canyon Ranch, and the SFPD was able to assess 3 structures. Roads leading to structures are unpaved, and structures generally have one road leading to them. Street signs and structure addresses are minimally posted. Building materials vary widely throughout Wet Canyon Ranch. Many structures have combustible materials within 10 feet of the

structure. Defensible space has been inconsistently implemented around current structures.

Protection and Management

Road accessibility for emergency responders within Wet Canyon Ranch is low. The main road is 31.9 and is paved. There are one-lane roads and turnarounds are infrequent. There are currently no fire hydrants available within Wet Canyon Ranch and water storage is minimally available. The nearest fire district substation is Wet Canyon Station. There are no fire protection capabilities within Wet Canyon Ranch, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the subdivision. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

Wet Canyon Ranch Homeowner Recommendations:

Wet Canyon Ranch General Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	 A local Wildfire Mitigation Advocate should been identified for the community that will assist with implementing recommended activities in coordination with the SFPD, State Forest Service, and federal land managers as appropriate.
Roadside Thinning of 31.9 and internal roads	2	 Thin along both sides of road in areas of heavy flammable fuel loadings this will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing.
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

See map of recommendations on following page.

ZAMORA PLAZA



Overall Hazard and Risk

The Zamora Plaza community is located within the western area of the Stonewall Fire Protection District along Highway 12. The Zamora Plaza encompasses 27 acres within the Stonewall Fire Protection District. The overall topography of the land is mountainous and river bottom and the density of vegetation is low. The vegetation in the area is comprised of pinon-juniper, grassy meadows, and irrigated farmlands, with cottonwoods in riparian areas.

This community is or the north side of both Highway 12 and the Purgatoire River and approximately one mile east of where the North Fork of the Purgatoire River joins the Picketwire Valley. Grass-covered land is mostly of the GR2 Fuel Model, with predicted rates of spread greater than 100 chains per hour and flame lengths of 6 to 8 feet. As the amount of shrubs increase at higher elevations, the GS1 Fuel Model is present, rates of spread can exceed 80 chains per hour and flame lengths can exceed 10 feet when the vegetation is dry and weather conditions adverse.

Individual Structure Breakdown



Structures Risk Rating: Low Average structure rating: 90

Zamora Plaza is moderately developed. There is one parcel within Zamora Plaza, and the SFPD was able to assess 9 structures. Parcels range from 35-40 acres. Roads leading to structures are unpaved, and structures generally have one road leading to them. Street signs and structure addresses are minimally posted. Building materials vary widely throughout Zamora Plaza. Many structures have combustible materials

within 10 feet of the structure. Defensible space has been inconsistently implemented around current structures.

Protection and Management

Road accessibility for emergency responders within Zamora Plaza is high. The main road is Highway 12 and is paved. There are many one-lane roads and turnarounds are infrequent. There are currently no fire hydrants available within Zamora Plaza and water storage is minimally available. The nearest fire district substation is Stonewall Station. There are no fire protection capabilities within Zamora Plaza, and there are currently no evacuation plans for this community.

Recommendations

The following tables of recommendations were created using data collected during risk surveying done by the Stonewall Fire Protection District from May to July of 2014. The first table focuses on homeowner recommendations within the community, while the second table describes general wildfire mitigation recommendations for the community. Together, these recommendations are suggested to minimize the overall wildfire risk within the subdivision. Recommendations are represented in both the tables and a map (where appropriate) that follows.

Name	Priority	Description	Methods
Evacuation Plan	1	Develop a personal home evacuation plan.	See " <i>Ready, Set, Go! Emergency</i> <i>Preparedness Checklist</i> " in Appendix
Create Defensible Space	2	Create defensible space around individual homes within 30 feet of home.	Hand fell and limb near homes; remove ladder fuels; mow; landscape appropriately; remove flammables, etc. See " <i>FireWise</i> <i>Guide to Landscape and</i> <i>Construction</i> " in Appendix
Extend Defensible Space	3	Extend defensible space into Zones 2 (30-100 feet) in moderate and high hazard areas and into Zone 3 (100- 200 feet) in high hazard areas. Thin and mow fuels along driveways.	Hand fell and limb outward from homes; remove ladder fuels; mow; landscape appropriately; remove flammables; thin or mow fuels along driveways. See <i>"FireWise Guide to Landscape and Construction"</i> in Appendix
Home construction and retrofit	4	Site and design home to incorporate additional FireWise/FireAdapted recommendations; retrofit home using FireWise/Fire/Adapted principles.	Use non-combustible materials for decks, siding and roofs, especially where homes are upslope from heavy vegetation. See <i>"FireWise Construction: Site Design & Building Materials"</i> and <i>"Protect Your Property from WildfireRocky Mountain Edition"</i> in Appendix

Zamora Plaza Homeowner Recommendations:

Zamora Plaza General Subdivision Wildfire Mitigation Recommendations:

Category	Priority	Description
Identify Wildfire Mitigation Advocate/s	1	• A local Wildfire Mitigation Advocate should been identified for the community that will assist with implementing recommended activities in coordination with the SFPD, State Forest Service, and federal land managers as appropriate.
Roadside Thinning of internal roads	2	 Thin along both sides of road in areas of heavy flammable fuel loadings this will aid in the egress of residents by reducing the intensity of fire and smoke. Methodology includes limbing and/or mowing.
Preparedness Training/ Evacuation	3	 Create a plan to further refine the risk assessment and mitigation strategies. Encourage individual landowners to reduce fuels near homes and along roadways and fence lines. Add reflective non-combustible addressing to all roadways, driveways and/or homes. Develop an evacuation plan for the community, including identifying escape routes and an evacuation center. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning. Develop a large-animal evacuation plan, if required.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

See map of recommendations on following page.

AREAS OF SPECIAL INTEREST

Areas of special interest (ASIs) are places within the CWPP study area that could be threatened from wildfire and have a social or economic value which is not based on residential development. Unlike subdivision communities, ASIs are not given hazard ratings. Candidates for ASIs include recreation areas, defined open space, large energy production sites and critical infrastructure sites. ASIs are identified separately from communities because of a focus on recreation and infrastructure over residences. Sometimes there are specific fuels reduction recommendations that can help mitigate the fire risk to ASIs. Frequently, there are no significant recommendations for the ASIs, but they are still identified, as they are values at risk. Damage to these areas as a result of wildfire could impact the surrounding communities and areas.

BOSQUE DEL OSO STATE WILDLIFE AREA



The Bosque del Oso State Wildlife Area is located within the central area of the Stonewall Fire Protection District south of Highway 12. The Bosque del Oso encompasses 30,300 acres within the Stonewall Fire Protection District. The overall topography of the land is mountainous, and the density of vegetation moderate. The vegetation in the area is comprised of ponderosa pine, pinon-juniper, cottonwood in riparian areas, and grassy meadows. The Bosque del Oso is minimally developed, as it is a State Wildlife Area. Recreational activities include hunting, bird watching, and hiking.

In an effort to maintain and protect the natural habitat and recreational attraction, the threat from wildfire should be taken seriously. Not only is there the concern of protecting visitors and infrastructure in the Bosque del Oso Wildlife Area, there is also the issue of protecting natural resources from human ignitions. Nearly all of the vegetation found within the park is capable of carrying fire. In campground areas set amongst wildland fuels, the potential for human-caused ignitions is higher in this area than in other adjacent communities. Visitors should be well informed of the dangers of wildfire and its potential impacts, and actions should be taken to reduce the risk of human-caused fires.

Road accessibility for emergency responders within Bosque del Oso is moderate. The main road is South Fork of the Purgatoire Road and is unpaved. There are many onelane roads and turnarounds are infrequent. There are currently no fire hydrants available within Bosque del Oso and water storage is minimally available. The nearest fire district substation is Wet Canyon Station. There are no fire protection capabilities within Bosque del Oso, and there are currently no evacuation plans for this community.

Bosque del Oso Recommendations:

Name	Priority	Description
Evacuation Plan	1	 Develop the park's evacuation plan, including clear posting of evacuation routes and procedures. Post a fire danger sign at the state park entrance. Provide visitors with information on wildfire, especially during times of high fire danger. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning.
Defensible Space	2	 Maintain thinning and mowing around campground sites and fire pits. Thin vegetation and mow along access roads and trails that might be used for evacuation purposes.
Roadside Thinning of South Fork of the Purgatoire Road and internal roads	3	• Thin along both sides of road in areas of heavy flammable fuel loadings. This will aid in the egress of residents by reducing the intensity of fire and smoke.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the area. Identify all water sources within the area, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

BURRO CANYON ELECTRICAL SUBSTATION



Burro Canyon Electric Substation is located in the eastern area of the Stonewall Fire Protection District north of Highway 12. It is a substation of San Isabel Electric Association. It is located in a mountainous region and the density of vegetation surrounding the substation is moderate. This substation encompasses 5 acres within the Stonewall Fire Protection District. Burro Canyon Electrical Power Substation serves the City of Raton, New Mexico. If this substation were affected by wildfire, residents of Raton could be left without power. Road accessibility for emergency responders is high. The main road is Highway 12 and is paved. The nearest fire district substation is Long Canyon Station. Water storage is minimally available and there are no fire hydrants onsite. The immediate area is mitigated.

Burro Canyon Electrical Substation Recommendations:

Name	Priority	Description
Defensible Space	1	Maintain defensible space around site
Extended	2	Extended defensible space is recommended.
Defensible Space		

MONUMENT LAKE



Monument Lake Resort is located within the northwestern area of the Stonewall Fire Protection District east of Highway 12. The Resort consists of a lodge, restaurant and cabins and is a tourist attraction. Monument Lake encompasses 657 acres within the Stonewall Fire Protection District. The overall topography of the land is mountainous, and the density of vegetation is moderate. The vegetation in the area is comprised of ponderosa pine, oak shrubland, and spruce-fir. Monument Lake is highly developed with 13 cabins and a large lodge.

Recreational activities at the Resort include fishing, hiking, bird watching, and picnic areas. In an effort to maintain and protect the natural habitat and recreational attraction, the threat from wildfire should be taken seriously. Not only is there the concern of protecting visitors and infrastructure in the Monument Lake Resort, there is also the issue of protecting natural resources from human ignitions. Nearly all of the vegetation found within the Resort is capable of carrying fire. In recreational areas set amongst wildland fuels, the potential for human-caused ignitions is higher in this area than in other adjacent communities. Visitors should be well informed of the dangers of wildfire and its potential impacts, and actions should be taken to reduce the risk of human-caused fires.

Road accessibility for emergency responders within Monument Lake is moderate. The main road is Highway 12 and is paved. There are several one-lane roads and turnarounds are infrequent. There are currently multiple fire hydrants available but they do not have sufficient GPM for fire suppression within Monument Lake. Water storage is highly available. The nearest fire district substation is Stonewall Station. There are no fire protection capabilities within Monument Lake, and there are currently no evacuation plans for this community.

Monument Lake Resort Recommendations:

Name	Priority	Description
Evacuation Plan	1	 Develop the park's evacuation plan, including posting clear evacuation routes and procedures. Post a fire danger sign at the park entrance. Provide visitors with information on wildfire, especially during times of high fire danger. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning.
Defensible Space	2	 Maintain thinning and mowing around campground sites and fire pits. Continue to thin vegetation and mow along access roads and trails which might be used for evacuation purposes.
Roadside Thinning of Highway 12 and internal roads	3	• Thin along both sides of road in areas of heavy flammable fuel loadings this will aid in the egress of residents by reducing the intensity of fire and smoke.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the area. Identify all water sources within the area, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

NEW ELK MINE



New Elk Coal Mine is located in the west central area of the Stonewall Fire Protection District north and south of Highway 12. The New Elk Coal Mine encompasses 1754 acres of the Stonewall Fire Protection District. The overall topography of the land is mountainous, and the density of vegetation is moderate. The vegetation in the area is comprised of ponderosa pine, oak shrubland, and scattered spruce-fir. New Elk Mine is a highly developed coal mine. New Elk Coal Mine is currently open and in production, however production is low and inconsistent. Road accessibility for emergency responders is high. The main road is Highway 12 and is paved. The nearest fire district substation is the Stonewall Station.

New Elk Coal Mine Recommendations

Name	Priority	Description
Defensible Space	1	Maintain defensible space around facility.
Extended	2	Extended defensible space is recommended. Thin vegetation along
Defensible Space		roadways.

NORTH LAKE STATE WILDLIFE AREA



The North Lake State Wildlife Area is located within the western area of the Stonewall Fire Protection District along and west of Highway 12. The North Lake State Wildlife area encompasses 1,289 acres within the Stonewall Fire Protection District. The overall topography of the land is mountainous, and the density of vegetation moderate. The vegetation in the area is comprised of ponderosa pine, aspen, and spruce/fir. North Lake State Wildlife Area is minimally developed, as it is a State Wildlife Area. Recreational activities include fishing, boating, hiking, hunting and picnicking.

In an effort to maintain and protect the natural habitat and recreational attraction, the threat from wildfire should be taken seriously. Not only is there the concern of protecting visitors and infrastructure in the North Lake State Wildlife Area, there is also the issue of protecting natural resources from human ignitions. Nearly all of the vegetation found within the park is capable of carrying fire. In campground areas set amongst wildland fuels, the potential for human-caused ignitions is higher in this area than in other adjacent communities. Visitors should be well informed of the dangers of wildfire and its potential impacts, and actions should be taken to reduce the risk of human-caused fires.

Road accessibility for emergency responders within the North Lake State Wildlife Area is good. The main road is Highway 12. There are currently no fire hydrants available within North Lake State Wildlife Area, but the area provides a ready source of lake water. The nearest fire district substations are Cucharas Pass and Wet Canyon Stations. There are no fire protection capabilities within the North Lake State Wildlife Area, and there are currently no evacuation plans for this community.

North Lake State Wildlife Area Recommendations:

Name	Priority	Description
Evacuation Plan	1	 Develop the park's evacuation plan, including posting clear evacuation routes and procedures. Post a fire danger sign at the state park entrance. Provide visitors with information on wildfire, especially during times of high fire danger. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning.
Defensible Space	2	 Maintain thinning and mowing around campground sites and fire pits. Thin vegetation and mow along access roads and trails that might be used for evacuation purposes.
Roadside Thinning of highway 12 internal roads	3	• Thin along both sides of road in areas of heavy flammable fuel loadings this will aid in the egress of residents by reducing the intensity of fire and smoke.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the area. Identify all water sources within the area, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

PIONEER NATURAL RESOURCES, INC. COMPLEX



Pioneer Natural Resources, Inc. is a private natural gas company located in the eastern area of the Stonewall Fire Protection District south of Highway 12. Pioneer Natural Resources, Inc. encompasses 118 acres within the Stonewall Fire Protection District. The overall topography of the land is river bottom and the density of vegetation is low. The vegetation in the area is comprised of pinon-juniper, ponderosa pine, and oak shrubland, interspersed with grassy meadows. Pioneer Natural Resources, Inc. and the infrastructure on site is at risk for wildland fires, but the risk is low as structures are well mitigated. Road accessibility for emergency responders within is high. The main road is Highway 12 and is paved. The nearest fire district substation is the Segundo Station.

Pioneer Natural Resources Inc. Recommendations:

Name	Priority	Description
Defensible Space	1	Maintain defensible space around the facility
Extended	2	Extended defensible space is recommended for the facility.
Defensible Space		

PURGATOIRE CAMPGROUND



The Purgatoire Campground is located in the western area of the Stonewall Fire Protection District west of Highway 12. Located within the Pike-San Isabel National Forest, the Purgatoire Campground offers year-round recreational opportunities including camping, hiking, snowshoeing, and fishing. There are 23 campsites within 37 acres of the central campground area. The Park has miles of trails including several peaks.

Vegetation density in the Purgatoire Campground is high. Types of vegetation include ponderosa pines, spruce/fir and aspens, and a number of important wetland areas along the Purgatoire River. The Purgatoire Campground protects habitat for plants, as well as many species of mammals, birds, amphibians, and fishes. In an effort to maintain and protect the natural habitat and recreational attraction, the threat from wildfire should be taken seriously. Not only is there the concern of protecting visitors and infrastructure in the Purgatoire Campground, there is also the issue of protecting natural resources from human ignitions. Nearly all of the vegetation found within the park is capable of carrying fire. In campground areas set amongst wildland fuels, the potential for human-caused ignitions is higher in this area than in other adjacent communities. Visitors should be taken to reduce the risk of human-caused fires.

The main road is Highway 12 and is paved. There are currently no fire hydrants available within the Purgatoire Campground, and water storage is minimally available. The nearest fire district substations are Stonewall and Cucharas Pass Stations.

Purgatoire Campground Recommendations:

Name	Priority	Description
Evacuation Plan	1	 Develop the park's evacuation plan, including making clear posted evacuation routes and procedures. Post a fire danger sign at the park entrance. Provide visitors with information on wildfire, especially during times of high fire danger. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning.
Defensible Space	2	 Maintain thinning and mowing around campground sites and fire pits. Continue to thin vegetation and mow along access roads and trails which might be used for evacuation purposes.
Roadside Thinning of Highway 12 and internal roads	3	• Thin along both sides of road in areas of heavy flammable fuel loadings this will aid in the egress of residents by reducing the intensity of fire and smoke.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

ROBINSON SAWMILL



The Robinson Sawmill is located in the western area of the Stonewall Fire Protection District north of Highway 12. The Robinson Sawmill is owned by Robinson Sons and Construction and encompasses 40 acres in a river bottom area surrounded by hills. Vegetation surrounding Robinson Sawmill is moderate. The vegetation surrounding Robinson Sawmill includes ponderosa pine, pinon-juniper, and oak shrubland. The Robinson Sawmill is a concern for the Stonewall Fire Protection District because of the amount of fuel located onsite and the potential for a human caused fire, as well as from machines on site. Spontaneous combustion of sawdust, wood chips and other wood products is of special concern. Special precautions must be implemented to minimize wildland fire risk at Robinson Sawmill and in surrounding areas. Road accessibility for emergency responders is high. The main road is County Road 31.9 and is unpaved. The nearest fire district substation is Wet Canyon Station.

Name	Priority	Description
Chip and Wood Product Piles	1	Monitor heat temperatures of composting wood products
Defensible Space	2	Create and maintain defensible space around individual facility and homes.
Extended Defensible Space	3	Extended defensible space is recommended for facility and homes. Thin vegetation along driveways.

Robinson Sawmill Wildfire Mitigation Recommendations:

SPANISH PEAKS STATE WILDLIFE AREA



The Spanish Peaks State Wildlife Area community is located within the north central area of the Stonewall Fire Protection District north of Highway 12. The Spanish Peaks State Wildlife Area encompasses 6,410 acres within the Stonewall Fire Protection District. The overall topography of the land is mountainous, and the density of vegetation is moderate. The vegetation in the area is comprised of ponderosa pine, pinon-juniper, and oak shrubland, interspersed with grassy meadows. Spanish Peaks State Wildlife Area is minimally developed and is used for recreation. Recreational activities include hunting, bird watching, hiking, and camping.

In an effort to maintain and protect the natural habitat and recreational attraction, the threat from wildfire should be taken seriously. Not only is there the concern of protecting visitors and infrastructure in the Spanish Peaks State Wildlife Area, there is also the issue of protecting natural resources from human ignitions. Nearly all of the vegetation found within the park is capable of carrying fire. In recreational areas set amongst wildland fuels, the potential for human-caused ignitions is higher in this area than in other adjacent communities. Visitors should be well informed of the dangers of wildfire and its potential impacts, and actions should be taken to reduce the risk of human-caused fires.

Road accessibility for emergency responders within Spanish Peaks State Wildlife Area is moderate. The main road is County Road 41.7 and is unpaved. There are currently no fire hydrants available within Spanish Peaks State Wildlife Area and water storage is minimally available. The nearest fire district substations are La Garita and Wet Canyon Stations.

Spanish Peaks State Wildlife Area Recommendations:

Name	Priority	Description
Evacuation Plan	1	 Develop the park's evacuation plan, including clear posting of evacuation routes and procedures. Post a fire danger sign at the entrance. Provide visitors with information on wildfire, especially during times of high fire danger. Determine the viability of additional egress route, and if viable, develop the route and include it in evacuation planning.
Defensible Space	2	 Maintain thinning and mowing around campground sites and fire pits. Thin vegetation and mow along access roads and trails that might be used for evacuation purposes.
Roadside Thinning of internal roads	3	• Thin along both sides of road in areas of heavy flammable fuel loadings. This will aid in the egress of residents by reducing the intensity of fire and smoke.
Infrastructure	4	 Provide adequate turnarounds for fire apparatus throughout the area. Identify all water sources within the area, including hydrants, cisterns and ponds, and make sure that they are visible, maintained and operable. Develop additional water sources and storage as required.

TRINIDAD WATER TREATMENT PLANT



The Trinidad Water Treatment Plant is located along North Lake in the western area of the Stonewall Fire Protection District east of Highway 12 at the intersection of CR 21.6 and CR 13. The Water Treatment Plant encompasses 5 acres of the Stonewall Fire Protection District. Vegetation density in the surrounding area is moderate. Vegetation includes pinon-juniper, ponderosa pine, and oak shrubland, interspersed with grassy meadows. The Trinidad Water Treatment Plant is at risk from wildfire. A wildfire in the area could impact the amount and quality of water available to the residents in Trinidad and the surrounding communities, The cost of replacing the equipment associated with water treatment could also be high. Road accessibility for emergency responders is high. The main road is County Road 21.6 and is unpaved. The nearest fire district substation is Stonewall Station.

Name	Priority	Description
Evacuation Plan	1	Develop an evacuation plan that incorporates containment of hazardous materials and provides for life safety.
Fire Hydrant	2	Continue to secure fire hydrant at site.
Defensible Space	3	Maintain defensible space around facility.
Extended Defensible Space	2	Extended defensible space

Trinidad Water Treatment Plant Recommendations:

XTO ENERGY, INC.



XTO Energy, Inc. is a private natural gas development company located in the central area of the Stonewall Fire Protection District north of Highway 12. XTO Energy headquarters encompasses 46 acres within the Stonewall Fire Protection District. The overall topography of the land is river bottom and the density of vegetation is low. The vegetation in the area is comprised of grasses and shrubs. XTO Energy, Inc. and the infrastructure on site are at risk for wildland fires, but that risk is low as structures are well mitigated. Road accessibility for emergency responders is high. The main road is Highway 12 and is paved. The nearest fire district substation is Segundo Station.

XTO Energy, Inc. Recommendations:

Name	Priority	Description
Defensible Space	1	Maintain defensible space around facility
Extended	2	Extended defensible space is recommended the facility.
Defensible Space		

COUNTYWIDE FIRE MITIGATION RECOMMENDATIONS

Las Animas County does not currently have any planning or zoning ordinances directed to wildfire risk reduction. The county is currently updating the Annual Operating Plan and the Emergency Operating/Evacuation plan is under development.

It is the recommendation of this CWPP that Las Animas County consider the following:

- Complete a county-wide Community Wildfire Protection Plan
- Identify and pre-plan primary escape routes for the county
- Develop evacuation centers and staging areas for fire resources
- Educate citizens on the proper escape routes and evacuation centers
- Plan for evacuation of large animals
- Perform response drills to determine the timing and effectiveness of escape routes and fire resource staging areas
- Consider implementing building and land use codes that address wildfire hazard mitigation
- Consider implementing road standards that facilitate fire apparatus access
- Consider sponsoring community chipper operations and designated burn areas

CONCLUSION AND NEXT STEPS

The Stonewall Fire Protection District Community Wildfire Protection Plan (CWPP) is a comprehensive review of wildfire-related hazards and risks in the Wildland Urban Interface (WUI) areas. This plan and its accompanying assessment of values at risk demonstrate that SFPD has variable, but considerable, risk to wildfires across much of the district. Much can be done to reduce this risk before the next wildfire occurs.

The success of the plan depends upon <u>strong leadership</u> at the community, district and county level. <u>Educating citizens and organizations</u> about the risk of wildfires and mitigation to reduce that risk is paramount. The plan also relies on the <u>efforts of</u> <u>individuals</u>, <u>landowners associations</u>, the SFPD and Las Animas County to reduce the risks of wildland fires.

No matter how good a plan is, it holds little value if it is not implemented. Defensible space is THE MOST IMPORTANT action an individual can take to protect his home. It is imperative that individual homeowners respond and begin efforts to mitigate the fire risk around their homes. It is also critical that communities organize to accomplish subdivision or community-wide mitigation and fuels reduction.

Tables are included in each community write-up that define and prioritize community action. The priority level should be used to assist in determining which fuels projects should be focused on and in what order they should be implemented. CWPP activities may be eligible for funding through state and federal grant programs.

Stakeholders, including representatives of the community that may include homeowner's association board members or citizens, must support recommendations in this plan. A concerted effort to identify Wildfire Mitigation Advocates within each community may be one of the most important recommendations of this CWPP. A Wildfire Mitigation Advocate can assist the SFPD in strengthening public understanding, acceptance and participation in the plan.

The projects detailed in the CWPP are not the only projects that are required within the planning area; they are the most achievable for the communities at this point in time. Landscape scale projects are excellent options as well, but often require the collaboration of multiple communities working with federal, state and county government. As support and community involvement grow through the completion of recommended smaller projects, the larger treatments become more obtainable. The core stakeholder group should consider additional projects at all scales, especially as Stonewall Fire Protection District begins to complete the initial projects identified in the CWPP.

The following table summarizes actions required of the Stonewall Fire Protection District. It details a suggested completion date and estimated cost for each project.

Priority	Action	Target date	Assigned to	Estimated cost
1	In partnership with the City of Trinidad obtain nine additional fire hydrants. In order of priority these are: 1. Hwy 12 and CR 31.9 (Weston) 2. Hwy 12 at Segundo 3. Hwy 12 at Valdez 4. Hwy 12 at CR 41.7 (Sarcillo Canyon) 5. CR 13 and CR21.6 (Trinidad Water Treatment Plant) 6. Hwy 12 at Lower North Fork 7. Hwy 12 at Rancho Escondido 8. Hwy 12 at Madrid Canyon 9. Hwy 12 at Pioneer Resources, Inc. facility	2014/ Until Completion	SFPD, City of Trinidad	\$15,000 each
2	Secure required equipment (chippers, chain saws, dump apparatus) to conduct FireWise wildfire risk mitigation	2015	SFPD, Mitigation Project Coordinator	\$180,000
3	Develop a trained mitigation crew capable of providing low-cost fuel reduction services within the district	2015	SFPD, other agencies	\$250

Stonewall Fire Protection District Action Plan

4	Hire part-time Mitigation Project Coordinator for first two years of CWPP implementation	2015/2016	SFPD	\$40,000
5	Develop a large scale shaded fuel break to enhance protection of the City of Trinidad Watershed above Monument and North Lake.	2015	City of Trinidad, SFPD, NRCS, CPW, and area landowners.	\$1,500- \$2,000/per acre.
6	Identify and complete five two-to-five acre demonstration projects within the district in strategic locations as examples of mitigation for wildland fire risk reduction	2015/ 2016	SFPD, CSFS, SFPD mitigation crews, Communities	\$15,000- \$40,000
7	Offer comprehensive WFAP Risk Assessments to area homeowners at no or low cost depending on funding	Ongoing	SFPD, Wildland Mitigation Advocates, Mitigation Project Coordinator, Communities	\$0-\$60 each and Staff time to coordinate
8	Work with Las Animas County to establish building, road and land use codes that address wildfire hazard mitigation issues	Ongoing	SFPD, Las Animas County	Staff costs
9	Identify Wildfire Mitigation Advocates to serve as primary contact resource for each WUI/community	2015/2016	SFPD, Mitigation Project Coordinator, Communities	\$2,500
10	Assist in developing a system of cisterns or other water storage in collaboration with communities within the district	Ongoing	SFPD, Wildland Mitigation Advocates, Communities	Unknown
11	Work with Las Animas County to implement evacuation planning, training and response drills	Ongoing	SFPD, Las Animas County	Staff costs
12	Encourage evacuation planning in every WUI community	Ongoing	SFPD, Wildland Mitigation Advocates, Mitigation Project Coordinator, Communities	Staff costs

13	Research and develop slash disposal	2015/	SFPD,	Unknown
	areas and resources for disposal of	2016	Communities	
	mitigation by-products			
14	Conduct at least four educational	2015/	SFPD,	\$400
	workshops throughout the district	2016	Wildland	
			Mitigation	
			Advocates,	
			Mitigation	
			Project	
			Coordinator,	
15	Assist at least two communities in	2016/		\$500
15	Assist at least two communities in	2010/	SFPD, Wildland	200
	status	2017	Mitigation	
	Status		Advocates	
			Mitigation	
			Project	
			Coordinator.	
			Communities	
16	Conduct one or more community	2016/	SFPD,	\$2,000
	chipping projects	2017	Communities	
17	Continue to offer S-130 and S-190	Ongoing	SFPD	\$2,500
	training to new firefighters and as			annually
	refresher courses			
10			0500	# 000
18	Continue to offer R1-130 Annual	Ongoing	SFPD	\$200
	Wildiand Safety Terresher Course			
19	Offer additional training courses to	Ongoing	SFPD	Varies;
	upgrade existing skill levels for all	0 0		\$200-
	firefighters			\$2,500
20	Upgrade SCBA equipment- 20 units	2016/	SFPD and	\$60-75K
		2017	Mitigation	
			Project	
0.1		0040	Coordinator	.
21	Obtain 20 additional VHF radios	2016	SFPD and	\$18K
			Witigation	
			Project	
22	Obtain 10 wildland fire Nomey	2016	SEDD and	¢лк
~~	shirt/nant sets	2010	Mitigation	ψτι
			Project	
			Coordinator	
23	Obtain 10 additional laptop	2016/	SFPD.	\$6,000
	computers for full computer mapping	2017	Mitigation	+0,000
	program use	-	Project	
			Coordinator	

Funding Sources

The following list is meant to serve as a starting point for securing funding. Available funds and funding priorities change rapidly. Some funding programs have decreased significantly in the last five years, and competition for the remaining limited funds can be intense.

Additional funding opportunities may be available in the future. Please check the Stonewall Fire Protection District's website at : www.stonewallfire.us for more information.

Colorado Department of Revenue Income 65 Wildfire Mitigation Measures Subtraction

Individuals, estates and trusts may subtract up to \$2500 of costs incurred while performing wildfire mitigation measures on their property from their federal taxable income. Qualifying wildfire mitigation efforts includes

- Creating and maintaining a defensible space around structures;
- Establishing fuel breaks;
- Thinning of woody vegetation for the primary purpose of reducing risk to structures from wildland fire;
- Secondary treatment of woody fuels by lopping and scattering, piling, chipping, removing from the site or prescribed burning.

See http://www.colorado.gov/cms/forms/dor-tax/Income65.pdf

Natural Resources Conservation Service

Program: Environmental Quality Incentives Program (EQIP) Eligible applicants: landowners

Funding Categories: conservation; environmental, sustainability issues; forest health, restoration, rehabilitation; riparian forest health, restoration; watershed protection, restoration, water quality

Deadline: ongoing

Website:

http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/eqip/ Contact: 3590 East Main Street; Trinidad CO 81082; 719 846-3681

Colorado Cattleman's Agricultural Land Trust

Eligible applicants: farmers and ranchers

Funding categories: agroforestry; community assistance, rural development; conservation; environmental, sustainability issues; fish and wildlife habitat improvement; forest health, restoration, rehabilitation; riparian forest health, restoration; watershed protection, restoration, water quality

Colorado State Forest Service LANDOWNER & COMMUNITY ASSISTANCE PROGRAMS FOR FORESTRY/AGROFORESTRY IN COLORADO UPDATED APRIL 2014

Contact your local CSFS District for additional information.

PROGRAM	ELIGIBLE LAND	SIGN-UP PERIOD	EASEMENT	COST* SHARE	POTENTIAL PRACTICES SUPPORTED
Front Range Fuels Treatment Partnership (FRFTP)	Non-federal lands	Annually; based on available funding	No	50%	Forest stand improvement for hazardous fuels reduction, including defensible space, thinning, slash disposal, fuelbreaks, assessments, planning, and monitoring.
Stevens Hazardous Fuels Grant (CAFA)	Non-federal lands	Annually; based on available funding	No	N.A	Treatments on adjacent non-federal lands to protect communities when hazard reduction activities are planned on National Forest lands.
Forest Agriculture for Tax Status Program (Forest Ag)	Private forestland producing tangible wood products (40 acres or more)	Annually; application materials due by Oct. 1 (requires a CSFS approved forest stewardship management plan)	No	N.A	"Forest Ag" tax classification does not preclude participation in other programs. Supports all management practices, especially those that result in revenue from harvesting tangible wood products.
Forest Legacy Program (FLP)	Non- industrial private forestland	As announced	Yes	25%	Protection from development. Conserve working forested lands.

Forest Stewardship Program (FSP)	Non- industrial private forestland	Continuous	No	N.A	Provides technical and planning assistance for forest management activities.
State & Private Forestry Competitive	Non-federal lands	Annually; based on available funding	No	50%	Forest management and fuels reduction.
Restoring Colorado's Forests Fund	State or private	Annually; based on available funding	No	N.A	Restoration of areas impacted by natural disasters.
1SFA Wildland - Urban Interface Competitive Grants (SFA-NFP2)	Non-federal lands	Ongoing; based on funding approval (projects with an approved CWPP3 receive priority)	No	50%	Forest stand improvement for hazardous fuels reduction, including defensible space, thinning, slash disposal, fuelbreaks, assessments, planning, and monitoring.
FEMA - Pre- Disaster Mitigation	Non-federal lands	Annually; based on available funding	No	25%	Pre-disaster mitigation and fuels management.
Colorado Forest Restoration Grant	All forestlands	Based on available funding (requires an approved CWPP)	No	40%	Watershed protection, forest management, ecological restoration, and fuels mitigation.

*Cost share rates indicated represent the recipient's share of total project cost.

¹ SFA (State Fire Assistance) grants are provided to state forestry organizations to maintain and improve protection efficiency and effectiveness on non-federal lands; funds are provided under authority of the Cooperative Forestry Assistance Act and the National Fire Plan.

2 NFP (National Fire Plan) was developed in August 2000, following a landmark wildland fire season, and addresses five key points: firefighting, rehabilitation,

hazardous fuels reduction, community assistance and accountability. NFP uses the authorities of the Cooperative Forestry Assistance Act.

3 CWPP (Community Wildfire Protection Plans) are authorized and defined in Title I of the Healthy Forests Restoration Act (HFRA) passed by Congress on Nov. 21, 2003, and signed into law by President Bush on Dec. 3, 2003. The Healthy Forests Restoration Act places renewed emphasis on community planning by extending a variety of benefits to communities with a wildfire protection plan in place. Funding comes through the SFA/NFP. Senate Bill 09-001, Community Wildfire Protection Plans, was initiated on Aug. 4, 2009 and updates the CWPP criteria. The bill states that counties, with the assistance of the state forester, must identify fire hazard areas in unincorporated portion of the county by January 1, 2011.

Pre-Disaster Mitigation (PDM) Grant Program

The Department of Homeland Security/FEMA administers the Pre-Disaster Mitigation (PDM) Grant Program. The PDM program provides funding to states, territories, Indian tribal governments, communities and universities for hazard mitigation planning and the implementation of **mitigation projects prior to a disaster event**. Eligible applicants and subapplicants include:

- State and Local government
- Indian tribes or other tribal organizations

Individual homeowners and businesses may not apply directly to the program; however an eligible application or subapplicant may apply on their behalf.

Program 15.228: Wildland Urban Interface Community and Rural Fire Assistance This program is designed to implement the National Fire Plan and assist communities at risk from catastrophic wildland fires. The program provides grants, technical assistance, and training for community programs that develop local capability, including:

- Assessment and planning, mitigation activities, and community and homeowner education and action;
- Hazardous fuels reduction activities, including the training, monitoring or maintenance associated with such hazardous fuels reduction activities, on federal land, or on adjacent nonfederal land for activities that mitigate the threat of catastrophic fire to communities and natural resources in high risk areas;
- Enhancement of knowledge and fire protection capability of rural fire districts through assistance in education and training, protective clothing and equipment purchase, and mitigation methods on a cost share basis.

Pre-Disaster Mitigation Grant Program

The Department of Homeland Security, which includes the Federal Emergency Management Agency (FEMA) and the U.S. Fire Administration (USFA), administers Pre-Disaster Mitigation Planning and Project Grants. This competitive grant program, known as PDM, provides funds and technical assistance to state entities, tribes and local governments to help develop multi-hazard mitigation plans and to implement projects identified in those plans. Individual communities can apply for PDM grants, but they are advised to work with their state contacts in emergency management or mitigation as they are developing their plans and projects.

BLM Wildland Urban Interface Community Assistance grant program

The application is open for two weeks of June through August and is posted on grants.gov. The program can fund a wide variety of wildland fire related projects and activities including wildfire related education, preparedness, prevention, risk assessment and hazard mitigation. It operates under a 90:10 cost share with the contributed 10% coming from either direct funding or in-kind services. The cost share might be increased to an 80:20 ratio in 2015.

Colorado Department of Natural Resources Wildfire Risk Reduction Grant (WRRG)

This grant was created under Colorado Senate Bill 269 awarded \$9.3 million to communities, special districts and local and state governments in 2014. It is unclear if additional funding will be available.

website: http://dnr.state.co.us/Media/Pages/WRRGProgram.aspx

Regional Conservation Partnership Program

NRCS Programs Used in RCPP - Conservation program contracts and easement agreements are implemented through the Agricultural Conservation Easement Program (ACEP), Environmental Quality Incentives Program (EQIP), Conservation Stewardship Program (CSP) or the Healthy Forests Reserve Program (HFRP). NRCS may also utilize the authorities under the Watershed and Flood Prevention Program, other than the Watershed Rehabilitation Program, in the designated critical conservation areas.

Plan Maintenance and Monitoring

The Stonewall CWPP is a planning tool. As such, it will help to identify and guide mitigation efforts within the district. Its overall value, however, is directly related to the ongoing evaluation and improvement of the plan in the future. Future plans will re-evaluate risks as conditions change and as mitigation efforts are completed. The plan should be revisited on an annual basis by the Core Group Committee, and should be formally updated every five years. As a living document, the plan relies on the input of all stakeholders. Particular attention should be paid to developing a district-wide infrastructure of volunteer advocates where existing and/or improved communication
APPENDIXES

Appendix A General Recommendations

Home Mitigation

In the end, every homeowner and every community must assume responsibility for protection from wildfire. Although the Stonewall Fire Protection District is dedicated to protect and defend, in the event of a catastrophic fire, or even a much smaller fire under the right conditions, the SFPD may or may not be able to intervene. The more steps each homeowner and each community takes to mitigate wildfire risk, the more likely it is a home will survive without intervention and the more likely it is that lives will be protected.

All of the communities in the SFPD, especially those with extreme, very high and high hazard ratings, should consider implementing a parcel-level analysis. Even homes that are outside of a defined CWPP community will most likely have hazard levels similar to homes within near-by evaluated communities. Communities may undertake large-scale projects that may benefit multiple homes, but the most effective steps landowners can take to protect their property from wildfire is to mitigate around homes.

Home Construction

All new construction within the SFPD area should consider incorporating wildfire construction principles. Changes to existing structures should be done with the assistance of a fire department representative, who will know which guidelines are appropriate for new or remodeled structures. Recommended alterations to a home may include simple tasks such as cleaning gutters, moving firewood from around buildings, raking pine needles and flammable ground cover away from the home. Other recommendations might include replacing flammable roofing materials and siding,

screening beneath decks and vents, double pane windows, and more. Please see Appendix for more details.

Road Signs and Home Addresses

The majority of the streets within the county are not adequately labeled, signs are not always reflective and are frequently combustible. There are still many places where signs are missing or made of combustible materials or it is unclear which road is which. Proper reflective signage is a critical operational need. Knowing at a glance the difference between a road and a driveway (and which houses are on the driveway) cuts down response time by reducing navigation errors. This is especially true for out-of-district responders who are not familiar with our area. The value of the time saved, especially at night and in difficult conditions, cannot be overstated: it can make the difference between lives saved and lost.

Recommendations

- Ensure that every intersection and street name change has adequate, reflective signage.
- Develop a program of replacing worn or difficult to read street signs. Include specifications and input from developers, HOAs, and the fire protection districts.
- Lot markers should be replaced with address markers as soon as a home has a certificate of occupancy.
- Where dead end and private road markers occur, the addresses of homes beyond the marker should be clearly posted. This can be done with a group address marker.

Preparedness Planning

Many CWPP communities in the SFPD have only one way in and out of the community. In order to reduce potential conflicts between evacuating citizens and incoming responders, it is desirable to have evacuation plans in place.

Recommendations:

- Identify and pre-plan primary escape routes for all CWPP communities. Emergency
 management personnel should be included in the development of pre-plans for citizen
 evacuation. Re-evaluate and update these plans as necessary.
- Educate citizens on the proper escape routes and evacuation centers to use in the event of an evacuation. This also applies to animal rescue.
- Ensure the existing reverse 911 system includes wildfire notifications.
- Perform response drills to determine the timing and effectiveness of escape routes and fire resource staging areas.

Public Education

There is likely to be a varied understanding among property owners of the hazards associated with the threat of a wildfire. An approach to wildfire education that emphasizes safety and hazard mitigation on an individual property level should be undertaken, in addition to fire department efforts at risk reduction.

Recommendations:

- Provide communities and homeowners fire prevention educational materials through personal contact.
- Fire prevention and wildfire hazard mitigation education should be an ongoing effort.
- Implement fire prevention, fire preparedness, defensible space, and hazard reduction recommendations for each community.
- Create an evacuation plan that is presented and distributed to residents.
- Hold multiple meetings per year to educate residents on wildfire risk, defensible space, and evacuation.
- Provide citizens with the findings of this study including:
 - 1. Levels of risk and hazard.
 - 2. Values of fuels reduction programs.
 - 3. Consequences of inaction for the entire community.
- Create a community level Mitigation Advocates or Firewise Council or similar WUI citizen advisory committee to promote the message of shared responsibility. The Mitigation Advocates or Firewise Council should consist of local citizens and members of the local FPD and the Mitigation Coordinator and its primary goals should be:
 - 1. Bringing the concerns of the residents to the prioritization of mitigation actions.
 - 2. Selecting demonstration sites.
 - 3. Assisting with grant applications and awards.
 - 4. Make use of regional and local media to promote wildfire public education messages in the fire district.
 - 5. Maintain a current wildfire educational presentation explaining the concepts of defensible space and wildfire hazard mitigation. The information in this CWPP should be incorporated into that presentation for the education of homeowners in the SFPD. This could be promoted through informational gatherings sponsored by the fire department, homeowners associations or neighborhood gatherings such as local festivals, and school events. It should also be presented during times of extreme fire danger and other times of heightened awareness concerning wildfire.

Water Supply

Water is a critical fire suppression issue in the District, as it is in many communities in Colorado. Very little of the area is served with water hydrants. All new developments within the District should consider developing year-round water sources.

Recommendations:

- Areas with no water or inadequate water supply should be evaluated to establish a stored water supply, or use preplanned firefighting resources.
- Map existing water sources and their volume. Make this information available for emergency personnel in and out of the district.
- Make sure cisterns are well marked with their capacity and are kept clear of vegetation.

Appendix B: Additional Resources

FireWise

www.Firewise.org Click on "Wildfire Preparedness" tab Firewise landscaping and plant lists, the basics of defensible space, checklists, information about becoming a Firewise Community[p

Colorado State Forest Service:

http://csfs.colostate.edu/pages/home-land-owners.html Links to information about protecting your home, Community Wildfire Protection Plans, numerous publications and links to other websites and information (click on "Links for Homeowners and Landowners")

Colorado State University Extension Small Acreage Management Resource Center http://www.colostate.edu/Depts/CoopExt/LARIMER/disa/disa.shtml Scroll down to "Wildfires". Information about caring for animals during a wildfire, emergency water supplies, Firewise plant materials for your yard and more.

http://www.ext.colostate.edu/sam/webinar.html click on 2013 "Firewise Lanscaping Webinar Series: Defensible Space is Not Moonscape!" for a video presentation about how fires start when embers are blowing and easy and inexpensive steps you can take to reduce your risk.

Fire Adapted Communities

http://www.fireadapted.org/

Click on Info and Resources. Information about becoming a Fire Adapted Community. Videos, retrofit guides to protect your property from wildfire and more.

CSU Fact Sheets:

A series of short (3-5 pages) fact sheets #6.303: Fire Resistant Landscaping http://www.ext.colostate.edu/pubs/natres/06303.html

> CSU Fact Sheet# 6.304 Forest Home Fire Safety http://www.ext.colostate.edu/pubs/natres/06304.html

6.302 Creating Wildfire Defensible Zones

6.305 FireWise Plant Materials http://www.ext.colostate.edu/pubs/natres/06305.html

Data Graphics

Graphics for displaying information for individual structure breakdown were created by using:

https://infogr.am

For specific details regarding mitigation, please refer to the following documents:

Appendix C	Protecting Your Home From Wildfire: Creating Wildfire-Defensible Zones
Appendix D	FireWise Construction: Site Design &Building Materials
Appendix E	Protect Your Property from Wildfire: Rocky Mountain Edition
Appendix F	Is Your Home Protected From Wildfire Disaster? A Homeowner's Guide to Wildfire Retrofit
Appendix G	Fuel Break Guidelines for Forested Subdivisions & Communities
Appendix H	Redy, Set, Go! Emergency Preparedness Checklist* *Courtesy of El Paso County Sheriff's Office