



Living With Wildfire in Park County, Colorado: 2021 Data Report

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EXECUTIVE SUMMARY

Wildfire affects many types of communities and is a particular concern for communities in the wildland urban interface (WUI), such as those of Park County, Colorado. The core intent of this project was to provide evidence to support the Platte Canyon Fire Protection District (PCFPD) and Fire Adapted Bailey in their wildfire mitigation and education programming. This report describes wildfire risk data collected in fall 2020 and pairs it with social data collected in the fall and winter of 2020–2021, in order to better understand residents' knowledge, experiences, and perceptions about wildfire risk in the communities of the Burland Ranchettes Homeowners Association (HOA) area and surrounding neighborhoods. This greater understanding will help PCFPD focus its programs and outreach and ultimately promote increased mitigation and reduced wildfire risk in Park County.

The study was conducted in a portion of the area served by PCFPD and included Burland Ranchettes HOA households, along with the neighborhoods that border the Burland Ranchettes HOA community boundaries. In total, a rapid wildfire risk assessment was conducted for 1,322 private residential properties. The results of the wildfire risk assessment, covering 1,322 private residential properties in the study area, suggest that the vast majority (82%) of properties face high (60%), very high (10%), or extreme (12%) risk of wildfire. In comparison, only 31% of residents estimated their risk of wildfire to be high, very high, or extreme (fig. 2). This suggests a “gap” between rapid assessment and survey estimates.

Two central drivers of the apparent mismatch between the rapid risk assessment observations and the self-assessed conditions reported in the household survey appears to be respondents' overestimation of defensible space and distance to or presence of combustibles near the home.

Most survey respondents (48%) reported that they had more than 100 feet of defensible space, whereas rapid assessment placed only 17% of properties into that category. Furthermore, 17% of survey respondents estimated their defensible space as less than 30 feet, while the rapid assessment placed over half (54%) of properties in that category (fig. 10). Likewise, the risk assessment identified 57% of properties as having combustibles within 10 feet of the home, whereas only 12% of survey respondents reported having combustibles so close their homes (fig. 11).

A significant concern for the area served by the PCFPD is evacuation of residents in an emergency event. Burland Ranchettes HOA, like most of the service area, is characterized as having limited roads for egress and access. Based on the PCFPD risk assessment, nearly half of the assessed properties have only one road in/out of the community (fig. 4). Most driveways (90%) are less than 20 feet in width (fig. 5), limiting places where suppression vehicles accessing the community can safely pass personal vehicles evacuating during a wildfire. Such conditions make residents' preparation measures particularly important. For example, well over half (61%) of the properties have posted addresses that are not reflective. A low-cost improvement to address posting to local standards (posted and reflective) supports safe and effective fire response (fig. 3).

Results from the household survey suggest that survey respondents were aware of, and concerned about, the wildfire threat to their community. Despite low levels of direct

experience with wildfire, most respondents reported taking action to reduce risk and have an evacuation plan for the people in their household (85%). However, a smaller portion (73%) reported having opted into CodeRED, the emergency reverse-911 system that is a critical component of emergency preparedness (figs. 20, 30, 31). Notably, while most respondents report having taken actions toward preparedness, most also indicated that they would like additional evacuation information (fig. 32).

Most (64%) of respondents agreed or strongly agreed that their property is at risk of wildfire, and most did not agree that firefighters should put their lives at risk to protect their home (figs. 23, 25). Importantly, few agreed or strongly agreed that local firefighters have sufficient resources to protect homes or keep wildfires from spreading—indicating an understanding of local resource constraints (fig. 24).

Residents reported high levels of wildfire-related property maintenance activities. These activities included reducing vegetation on the property (93%), regularly clearing roof and gutters of debris (86%), and mowing and raking around the home (81%) (fig. 33). Around half (47%) have taken action to make their home more fire resistant (fig. 33). The majority of respondents indicated acceptance of removing vegetation along roadways for safe evacuation as well as wildfire risk mitigation activities on public lands (fig. 34).

WHAT IS WiRē?

The Wildfire Research Center (WiRē¹) works with wildfire practitioners seeking to create communities that are adapted to wildfire through an evidenced-based approach. Historically, immediate threats and wildfire suppression have garnered much attention and resources. While these efforts remain critical, getting in front of the problem by promoting pathways to fire adaptation is of paramount importance. Fire adaptation is about living with wildfire. It's about creating safe and resilient communities that mitigate wildfire risk on their property before a fire, as well as supporting an effective response when fires threaten a community. It is also about allowing fire on the landscape when it is safe to do so.

Over the last decade, a team of researchers and practitioners, referred to as the WiRē Team, has developed and successfully implemented a systematic data collection and integration approach (the WiRē Approach) that informs local wildfire risk education efforts and allows for monitoring of community adaptation over time.

The implementation arm of WiRē is the WiRē Center, a nonprofit organization whose mission is to support evidence-based community wildfire education efforts so that communities can live with wildfire. Specifically, the WiRē Center provides personalized expertise and support to collect, interpret, and use paired parcel level wildfire risk and social data. The WiRē Approach enables partners to effectively allocate resources and engage with residents. Leveraging lessons learned across projects, the WiRē Center pursues scientific approaches to inform conversations and decisions about wildfire adaptation.

Individual WiRē Team members maintain a connection with the WiRē Center by participating on the Center's Advisory Committee or as a member of the Board of Directors. In this capacity, the WiRē Team provides technical and strategic guidance to the WiRē Center, ensuring the WiRē Approach is implemented with exceptional quality and scientific integrity.

The WiRē Approach

Currently, the core of the WiRē Approach includes two central data collection efforts:

1. A property-level WiRē Rapid Wildfire Risk Assessment (RA) collected roadside in 60 seconds or less by a trained wildfire professional. The rapid assessment is based on attributes related to access to the property, background fuels and topography, vegetation near the home, and building materials, and also includes an overall risk rating for the property. It is an indicator of the relative risk of the private property within the community rather than an absolute measure of risk (for more information on relative risk, see "Methods").
2. Social surveys of the residents of the assessed properties, which represent residents' notions of wildfire risk, risk mitigation behaviors, including evacuation planning, and barriers and incentives to mitigate wildfire risk on private properties.

¹ Pronounced Wy-REE.

The WiRē Approach aims to empower the voice of wildfire practitioner partners. These partners both participate in the data collection process and share the results with their communities. Experience has demonstrated that sharing results with the community provides a common platform for constructive discussion about adapting to wildfire. During these discussions, wildfire practitioner partners can draw from data that reflect the entire community, not just the vocal few. To support these discussions and other partner goals, the WiRē Center summarizes local data and provides wildfire practitioner partners with the tools to act on research results. For some partners with a regional reach, the WiRē Center also works to expand the WiRē Approach into new communities.

At a broader scale, the WiRē Center manages, compiles, and analyzes data collected across communities to provide insights across space and time with respect to wildfire risk on private land and the characteristics, knowledge, and experience of the people who live on those properties. These data are an important contribution to the state of knowledge regarding private land and wildfire risk. In collaboration with the WiRē Team, the WiRē Center advances understanding of effective pathways to community wildfire adaptation.

WiRē Partners: Platte Canyon Fire Protection District (PCFPD), Fire Adapted Bailey, and Burland Ranchettes HOA

Our primary partner for this project is the Platte Canyon Fire Protection District (PCFPD), which serves a 271 square mile area and a population of approximately 10,500 residents, providing services that include medical emergency, structural, and wildland fire services, traffic, swift water, and ice rescues. The department staff includes career firefighters (18), volunteer firefighters (13), and a wildland fire crew (10), 6 of whom are seasonal.

The project also benefited from the involvement of the Burland Ranchettes Homeowners Association and Fire Adapted Bailey (FAB), a nonprofit serving 68 fire-prone communities in Park and Jefferson counties, just west of Denver. FAB seeks to “get the attention of residents regarding the dangers associated with the current state of our forests in an organized and targeted fashion. ... Our objectives are to increase individual homeowner awareness of their own risks and move toward taking concrete steps to mitigate those risks, as well as to obtain community-wide perceptions of wildfire risk, risk mitigation behaviors, and responses to incentives to mitigate risk.”² Burland Ranchettes, the study site, is one of the highest risk FAB communities and is comprised of 1,135 owner-occupied homes. Burland Ranchettes HOA has three objectives, one of which is to “maintain Firewise community status via continued education of our residents on mitigation to reduce wildfire impacts.”³

² <https://www.fireadaptedbailey.org/our-mission.html>

³ <https://www.burlandhomeowners.org/>

STUDY AREA: WHAT DOES THE COMMUNITY LOOK LIKE?

The project area included several communities in addition to Burland HOA households. These include Burland Meadows, Trails West, Double “S” Ranchettes, and MB T07 R72. The logic is that these are adjacent to—and in the case of Burland Meadows, in the middle of—the eight Burland Ranchettes HOA boundaries. In looking at the topography of the area, it’s clear that some of these additional communities may serve as egress routes for Burland Ranchettes HOA residents in the event of a fire.

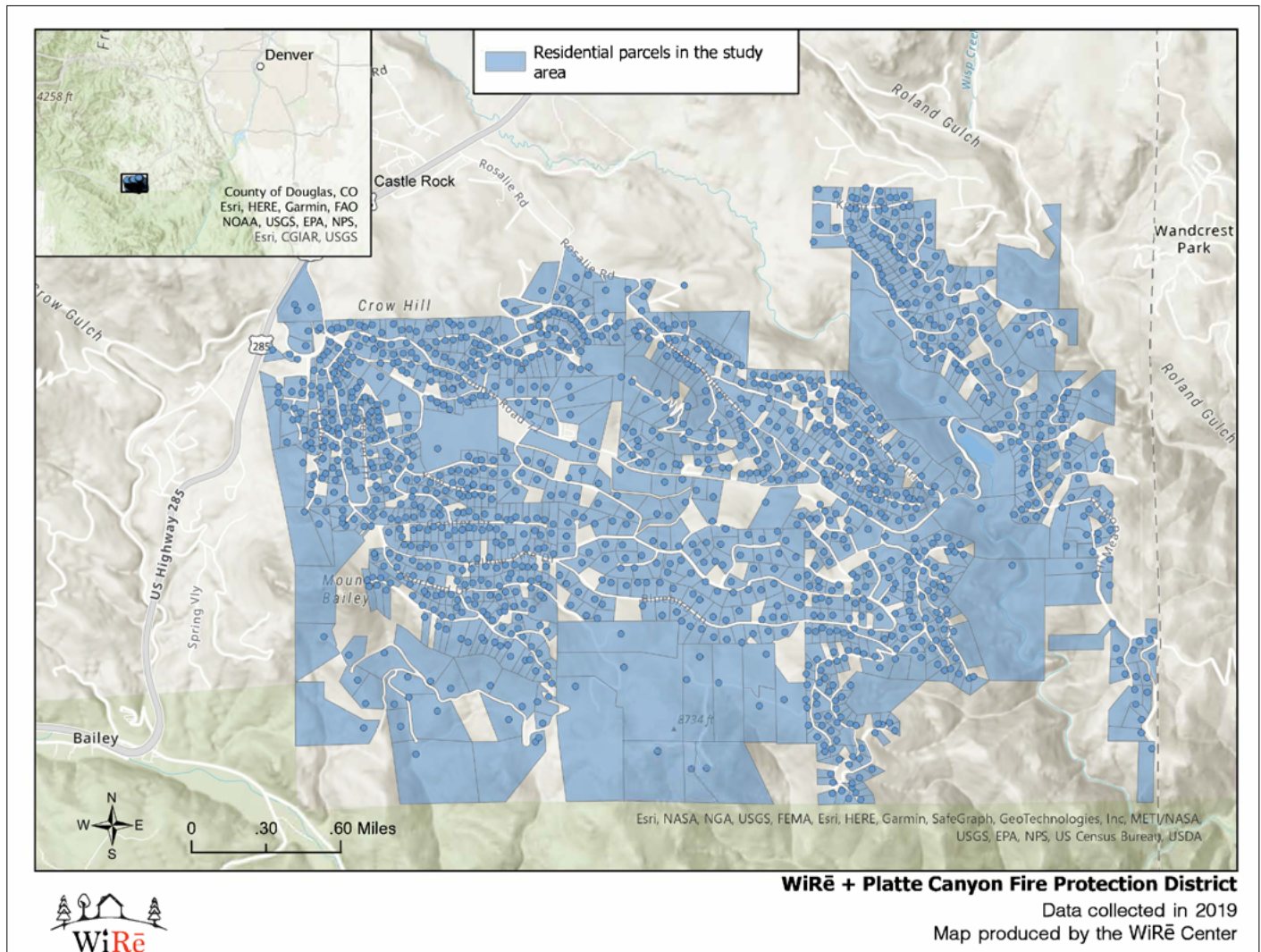


Figure 1—Map of community areas studied in Park County, CO, by the Wildfire Research Center (WiRē) and Platte Canyon Fire Protection District (PCFPD). Map image is the intellectual property of Esri and is used herein under license. Copyright © 2014 Esri and its licensors. All rights reserved.

METHODS: WHAT DID WE DO?

PCFPD and WiRē implemented the WiRē Approach, a systematic approach to data collection that includes rapid parcel wildfire risk assessment and household survey data collection. The project launched with the mailing of an initial letter in January 2020 to inform residents of the upcoming activities. Please see Appendix A for correspondence materials.

Rapid Wildfire Risk Assessments

Risk assessment data collection was conducted by PCFPD staff, FAB, and Burland Ranchettes HOA as a census of all residential properties with a structure in the study area. The rapid assessments were conducted for 1,322 residential properties in summer and fall 2020 using the rapid assessment, which is comprised of a set of 13 attributes that includes access to the property, background fuels and topography, vegetation near the home, and building materials. To calculate a parcel's overall "risk score" (continuous number on a 1,000-point scale), each rapid assessment attribute is weighted, reflecting its relative contribution to parcel-level wildfire risk. For example, because roofing materials can present a more significant risk than address posting, these attributes are weighted differently, constituting 30% and 1% of the overall risk score, respectively.

To support comparison of risk across properties, the overall risk scores for each parcel are placed into five categorical "risk ratings" (low, moderate, high, very high, and extreme). These risk ratings are defined by the distribution of risk scores in WiRē's compiled dataset, which includes all applicable WiRē projects to date. Specifically, the cut-offs between each risk rating are the 10th, 25th, 75th, and 90th percentile of the full distribution across WiRē projects.

Importantly, a parcel-level risk rating does not account for all components of risk, including variable or extreme weather conditions and some factors which can only be captured during a comprehensive on-site consultation (e.g., vent screen size, windows, fire-resistant flashing, etc.). Thus, WiRē risk scores are not an absolute measure of risk but are estimates of risk using a standardized suite of variables observed by a particular person at one point in time.

To ensure consistent, high quality data collection, WiRē wildfire practitioners conducted an in-person training for those who would conduct the rapid risk assessments. A standardized reference sheet for data collectors was available for use in the field.

All parcel level assessments were conducted on the property being assessed unless access was blocked by a gated driveway or posted with "no trespassing" signage. While environmental and situational variables may occasionally affect the rapid assessment data collection process, PCFPD is confident that the rapid assessments collected for this project provide an accurate representation of relative wildfire risk to the parcels in Park County.

In instances when the mitigation specialist could not observe a risk attribute, the specialist selected "unknown/not observed." During data processing, these responses were assigned the highest risk score. For this project, WiRē used geospatial information systems (GIS) to calculate proximity to adjacent homes for all of the risk assessments.

Household Survey

Household surveys were mailed to the owners of all the residential properties for which rapid risk assessments were conducted.⁴ The survey contained the standard WiRē questions along with some questioned tailored for the study area. This process was done collaboratively by WiRē and PCFPD, FAB, and Burland Ranchettes HOA.

Household survey data were collected using a modified Dillman approach⁵ that includes three mailings after the initial letter announcing project activities and the data collection efforts (see table 1 for Survey Administration timing). The first mailing was a survey packet containing a cover letter, a household survey, and a postage-paid and addressed return envelope. The second mailing was a reminder/thank you postcard mailed to the entire mailing list approximately one month after the initial survey packet. The final mailing was a second complete survey packet with an updated cover letter mailed to nonrespondents approximately one month after the reminder postcard.

Table 1—Timing of the household survey administered to residents of Park County, CO, by the Platte Canyon Fire Protection District (PCFPD) and the Wildlife Research Center (WiRē) to collect information for assessing wildfire risk.

Mailing	Date of mailing
Initial letter	1/24/2020
First survey package	10/23/2020
Postcard reminder	11/24/2020
Second survey package	1/4/2021

This process resulted in 417 completed surveys and a 36% response rate.

Paired Rapid Assessment and Household Survey Data

The data from the 1,322 rapid assessments and 418 household surveys were compiled into a dataset (1,323 records) containing three types of data: properties for which we have both rapid assessments and household surveys (417 records), properties for which we have only a rapid assessment (905 records), and properties for which we have only a household survey (one record). For comparison of these different groups of data, please see Appendix C. The paired rapid assessment and household survey data are the foundation for the results presented below.⁶

⁴ As part of the WiRē Approach, one survey is sent to each individual homeowner in the study area. If an individual owns multiple properties, they receive only one survey with a prompt to select a specific property address. As a result, the number of household surveys mailed out is different from the total number of rapid assessments conducted.

⁵ For details, see *Dillman, Don A. 2000. Internet and mail surveys: the tailored design method, 2000. New York: John Wiley. 480 p.*

⁶ Any differences between the numbers reported here and the Household Survey Codebook (Appendix D) should be minor and the result of rounding.

RESULTS: PAIRED WiRē RAPID ASSESSMENT AND HOUSEHOLD SURVEY

Community Risk

Results of the rapid assessment ratings for all 1,322 property risk assessments conducted in Park County revealed that 6% were characterized as low risk, 12% as moderate risk, 60% as high risk, 10% as very high risk, and 12% as extreme risk.

Rapid Assessment Attributes: Observed in WiRē Rapid Assessment vs. Self-Assessed by Household Survey Respondents

Below, the rapid assessment data and household survey data are compared by looking at the overall wildfire risk rating and the results for each attribute. The rapid assessment data used in this section represents only properties for which a household survey was returned. The sections are organized by overall risk and then risk categories of access, home ignition potential, defensible space, and background conditions.

Overall wildfire risk rating

In order to better understand the perspective of study area owners, household survey respondents were asked to provide an overall assessment of their property's risk, after having self-assessed their property based on the 13 attributes described in the following sections. The survey question provided a 5-point scale: low, moderate, high, very high, or extreme risk.

The survey's overall rating scale matches the rapid assessment overall rating scale; however, unlike the survey overall ratings, the rapid assessment overall ratings were calculated as the sum of each individual attribute score.

Respondents were more likely to rate their properties' risk as low or moderate whereas the rapid assessment was more likely to rate properties as high, very high, or extreme risk. See figure 2.

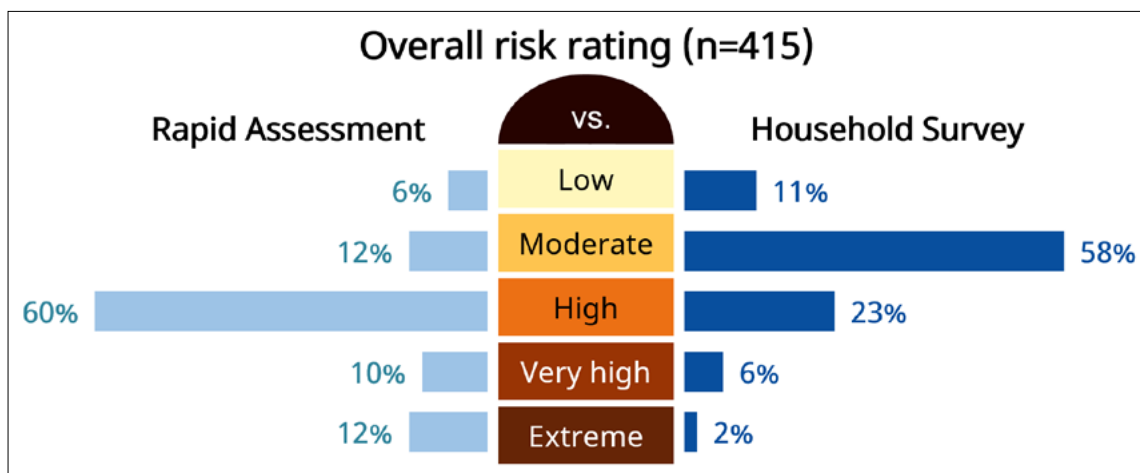


Figure 2—Distribution of overall wildfire risk rating for study area properties in Park County, CO. Comparison of ratings obtained through household survey versus rapid assessment. N = 415 respondents to this survey question.

Access

During a wildfire, the ability for emergency responders to safely locate and access a property, as well as the ability for residents to evacuate, is critical. During a wildfire, evacuation routes could be blocked, limiting a resident's ability to move to a safe area. The following four attributes relate to access.

Address visible

When firefighters receive notice that a house is in immediate danger from wildfire, every second spent finding the property is crucial. Easy identification of a property's address can speed up the process. In Park County, properties were evaluated based on whether the address was posted at the driveway entrance and thus visible from the road, and whether the address was reflective and thus visible during heavy smoke or in low light.

A third (33%) of property addresses were both posted at the driveway and reflective, and nearly two-thirds (61%) were posted but not reflective. Compared to the rapid assessment, more survey respondents (60%) thought they had a posted and reflective address, and fewer thought their address was posted but not reflective (34%). See figure 3.

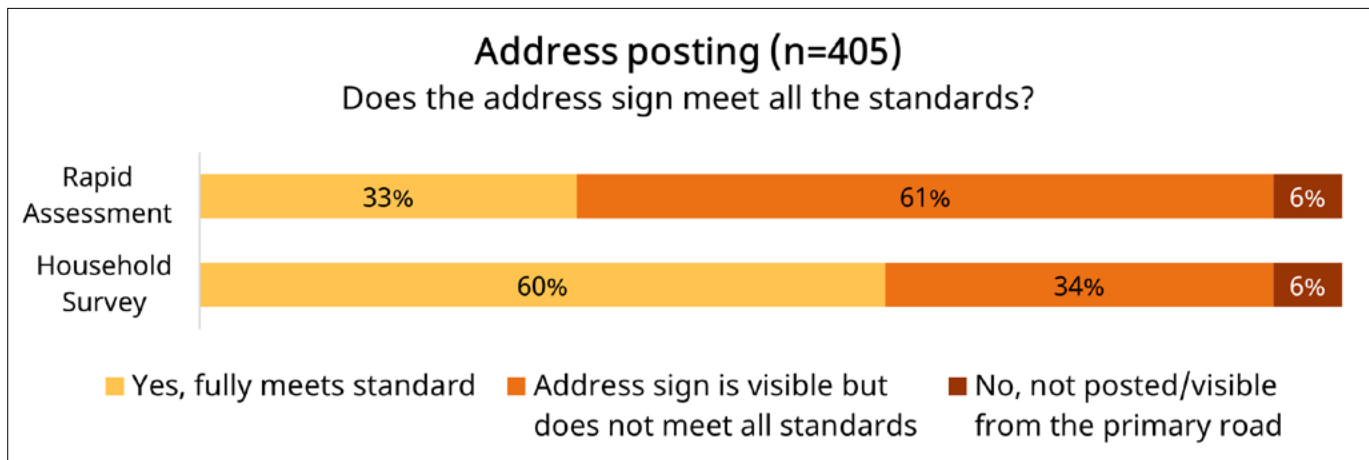


Figure 3—Visibility of property address for study area properties in Park County, CO. Comparison of information obtained through household survey versus rapid assessment. N=405 respondents to this survey question.

Ingress/egress

Access to and from a property is determined by the available road system. Properties were evaluated based on having one or two (or more) roads in/out of the community. Parcel evaluators defined this type of road as one that allows a resident to exit their neighborhood and access a main road out of the community.

Half (49%) of the properties in the paired dataset have just one road in or out of their community, while the other half (51%) have multiple roads in or out. A similar portion of respondents (45%) reported just one road in or out of their community, indicating that respondents have an accurate understanding of the availability of evacuation routes. See figure 4.

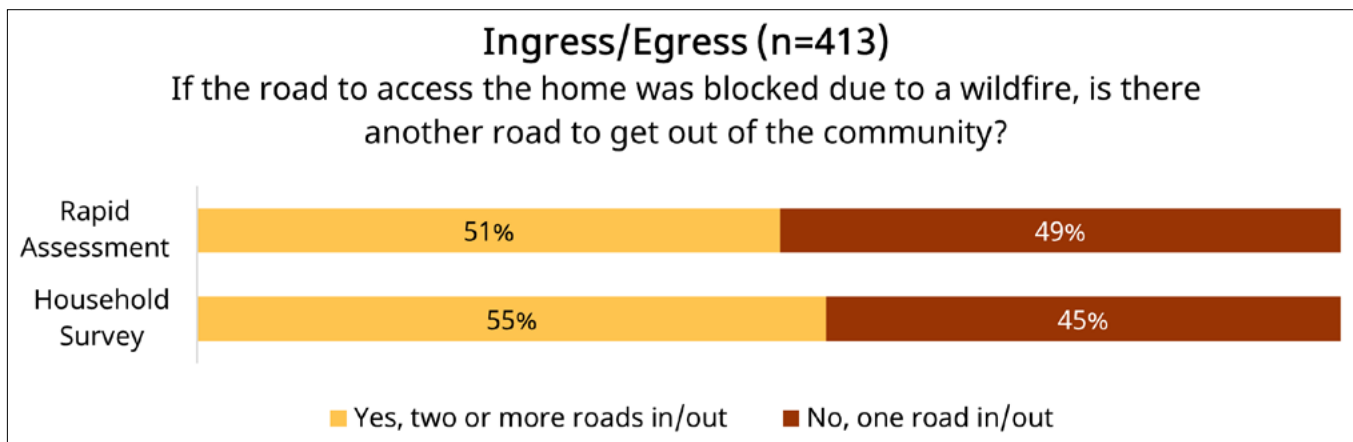


Figure 4—Number of evacuation routes in or out of the community, for study area properties in Park County, CO. Comparison of information obtained through household survey versus rapid assessment. N = 413 respondents to this survey question.

Driveway clearance

Firefighting vehicles can be much larger than regular vehicles, and thus require more space to safely maneuver during a wildfire. A narrow driveway, such as one lined by trees or with a narrow gate, makes it difficult for two firefighting vehicles to pass each other. Assessment of driveway clearance included width standards that refer to horizontal obstruction-free clearance that would permit vehicle access, not just road base. For example, if the driveway road base is 12 feet wide and bordered by flat ground that could easily be driven on by any firefighting vehicle, with no obstructions for at least 4 feet on each side (20 feet total), the driveway meets the width standard.

Only 2% of properties in the paired dataset meet the width clearance standards, and 90% were observed to be less than 20 feet wide. Only a small percent (7%) of survey respondents thought they met the width standard; however, respondents also overestimated driveway width with only 69 percent reporting that their driveway was less than 20 feet. See figure 5.

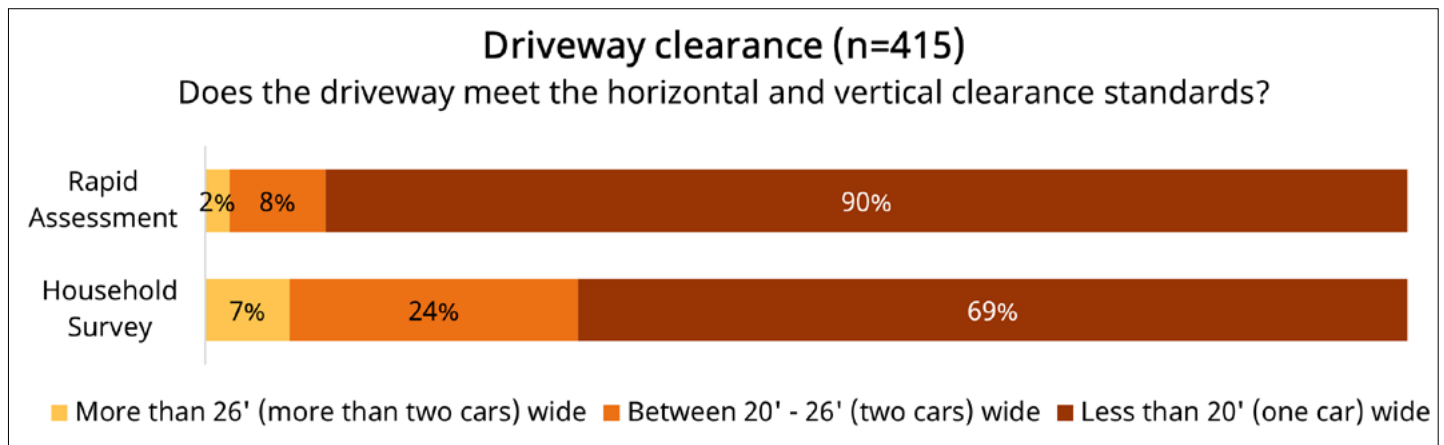


Figure 5—Properties whose driveway meets clearance standard width (more than 26 feet), for study area properties in Park County, CO. Comparison of information obtained through household survey versus rapid assessment. N = 415 respondents to this survey question.

Driveway length

This attribute evaluates both driveway length and the presence of a turnaround that allows an emergency vehicle to reverse its direction after arriving at the house. The length of the driveway is important because the longer the driveway, the more risk of fire exposure for emergency responders. The turnaround is important both for fire personnel safety and because many firefighting activities require the use of the rear of the vehicle. The majority (70%) of properties fall into the safest category, a driveway of 150 feet long or less. A quarter (24%) of properties fall into the riskiest category, with driveways longer than 150 feet without a turnaround. In comparison, many more survey respondents (23%) thought they had a longer driveway with a turnaround. This disparity might be accounted for either by respondents who overestimated the length of their driveway, or respondents who thought they had an adequate turnaround but did not, according to the rapid assessment. See figure 6.

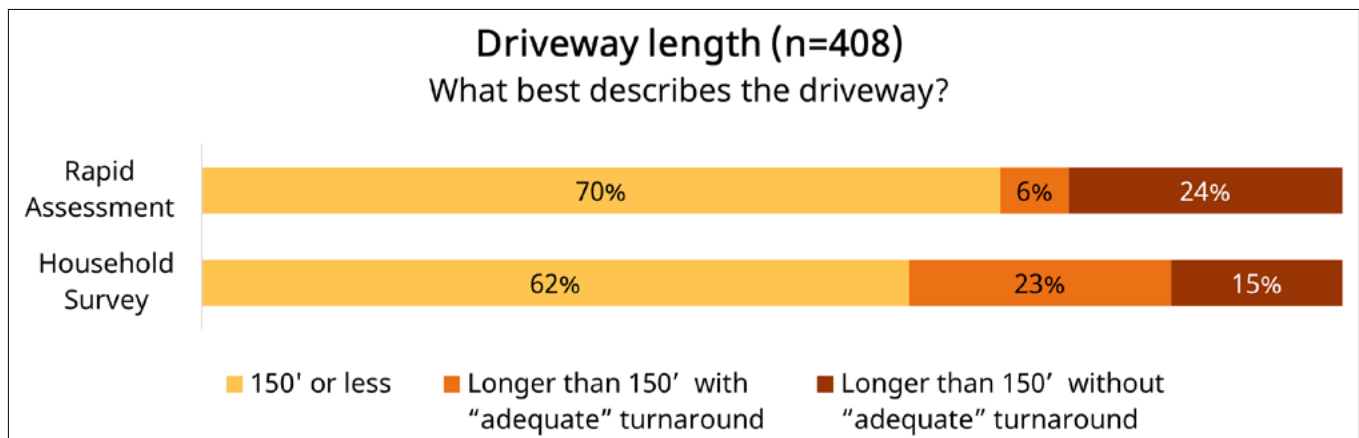


Figure 6—Driveway length and presence of a turnaround, for study area properties in Park County, CO. Comparison of information obtained through household survey versus rapid assessment. Type 1 engine refers to an emergency vehicle. N = 408 respondents to this survey question.

Background conditions

Background conditions at the parcel level affect a property's wildfire risk. These conditions include dangerous topography, overall slope of the property, and the density of nearby vegetation, each of which are described below.

Dangerous topography

Topography is one of the three main factors that influence wildland fire behavior. It is well documented and understood that certain topographic features, such as ridges, chimneys, narrow canyons, and drainages are known to dramatically increase fire behavior (rate of spread, flame length, etc.). As such, homes that are located close to and in direct alignment with these features are at significantly higher risk than homes that are situated back and away from such features.

Over half (56%) of properties are more than 150 feet away from dangerous topography, the least risky category. However, nearly a quarter of properties (23%) are less than 50 feet away, or between 50 and 150 feet away (21%). Notably, the majority (69%) of survey respondents reported that their property was more than 150 feet away, suggesting that respondents believe they are farther from dangerous topography than the rapid assessment indicates or their definition of dangerous topography may vary from that of the assessors. See figure 7.

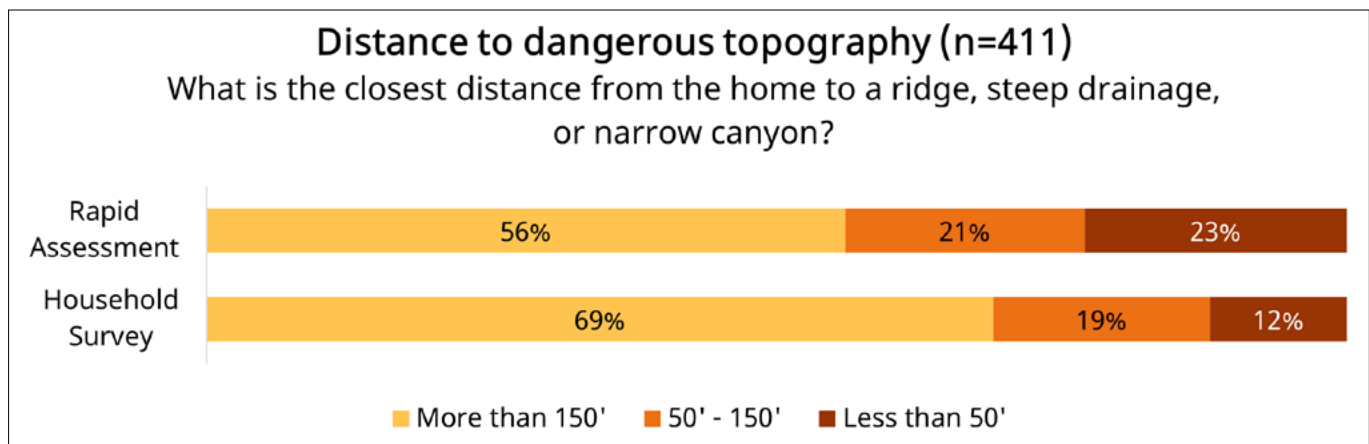


Figure 7—Distance of home to dangerous topography (e.g., ridge, steep drainage, narrow canyon), for study area properties in Park County, CO. Comparison of information obtained through household survey versus rapid assessment. N = 411 respondents to this survey question.

Slope

The slope of the land on which a home is located can also affect its wildfire risk. Wildfire tends to burn more quickly when moving up a steeper slope. Furthermore, very steep slopes can limit firefighter access. Respondents were asked to estimate the slope of their property, with the aid of a diagram printed on the survey to visually demonstrate different slopes. Rapid assessment data and household survey responses were nearly identical. See figure 8.

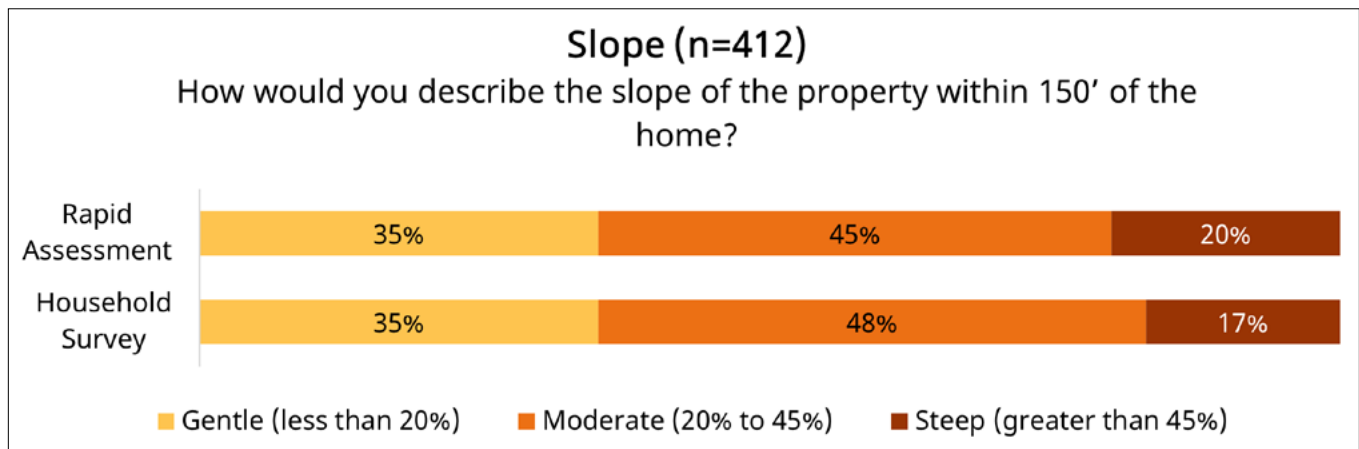


Figure 8—Overall slope of property, for study area properties in Park County, CO. Comparison of information obtained through household survey versus rapid assessment. N = 412 respondents to this survey question.

Density of vegetation

High density vegetation near a home can increase wildfire risk to the home. Respondents were asked to estimate whether the majority of vegetation on their property and properties immediately surrounding would best be described as “Grasses,” “Light brush and/or isolated trees (ex. grass with some lodgepole pine, scattered aspen, or other conifer),” or “Dense brush and/or dense trees (ex. continuous lodgepole pine, dense aspen, or other conifer).” The rapid assessment scored properties based on whether that property and properties immediately surrounding had light, medium, or heavy vegetative density.

The rapid assessment scored 26% of properties as having dense vegetation while only 18% of survey respondents placed their property in that category. Notably, 70% of the properties fall into the moderate category; a similar percent of survey respondents (74%) selected the same category. See figure 9.

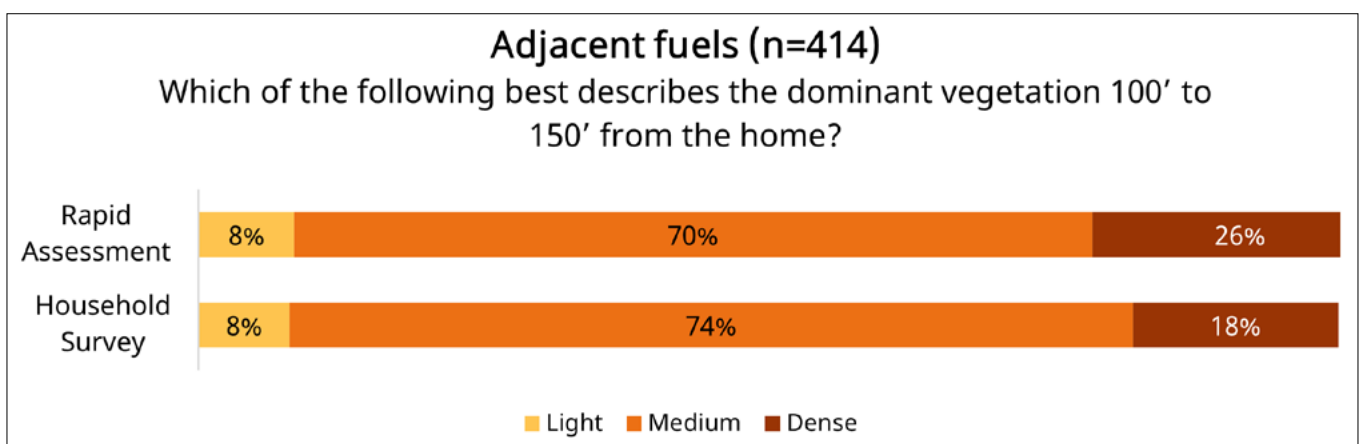


Figure 9—Type and density of vegetation around the home, for study area properties in Park County, CO. Comparison of information obtained through household survey versus rapid assessment. N = 414 respondents to this survey question.

Defensible space

Vegetation and other combustible materials near or touching the home can play a large role in home ignition, as they can catch fire and pass the flames to the home. Defensible space is a buffer around the home that reduces that likelihood. The following two attributes relate to defensible space.

Defensible space

The quality of the defensible space around the home, in addition to the home's ignition potential, form the home ignition zone. Continuous or connected fuels within the home ignition zone increase the home's risk for damage by wildfire. Flammable or abundant vegetation near the home may catch on fire and spread the fire to the home. To best prepare a home for wildfire, at least 100 feet of defensible space is generally recommended.

Only 17% of homes had more than 100 feet of defensible space according to the rapid assessment. Nearly half (48%) of respondents reported this to be the case indicating a notable overestimation of defensible space. Over a quarter (28%) of homes were observed to have 30 to 100 feet compared to over a third (34%) of survey respondents selecting this response. Over a third of homes (38%) were observed as having between 5 and 29 feet (38%) compared to only 15% of household survey respondents who thought this was the case. See figure 10.

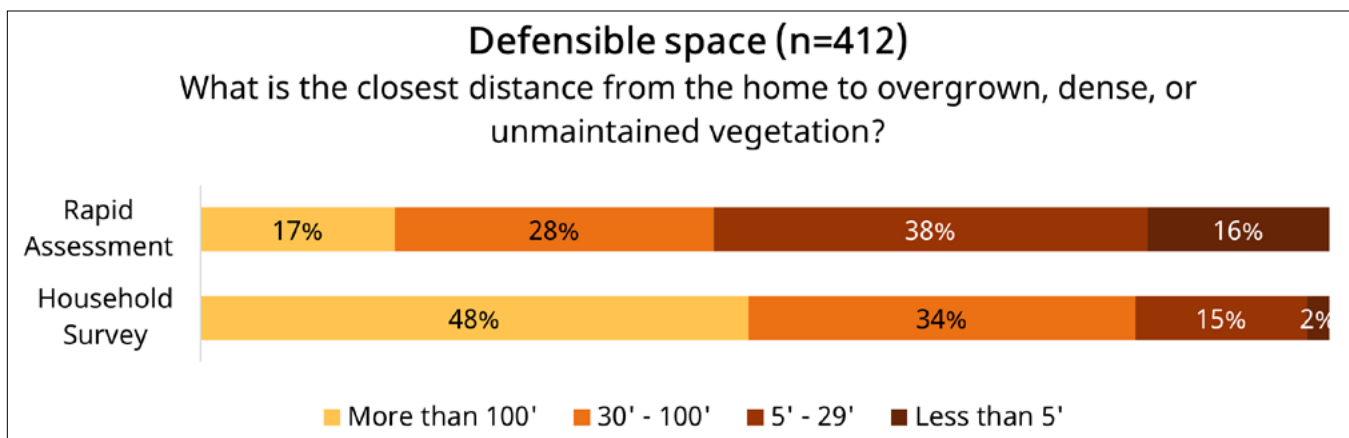


Figure 10—Defensible space, categorized by distance between the home and dense vegetation, for study area properties in Park County, CO. Comparison of information obtained through household survey versus rapid assessment. N = 412 respondents to this survey question.

Combustible materials other than vegetation within 30 feet

Beyond vegetation, other combustible materials within 30 feet of the home can also affect the quality of defensible space.

The nearest combustible materials, other than vegetation, were observed to be 30 feet or more from the home for less than a quarter (18%) of properties in the paired data. However, nearly half (47%) of respondents reported that the nearest combustibles, other than vegetation, were at least 30 feet from their home. In contrast, over half (57%) of homes were observed to have combustibles other than vegetation within 10 feet of the home compared to only 12% of respondents reporting this. These results suggest that respondents may not be recognizing some items near their homes as combustible. See figure 11.

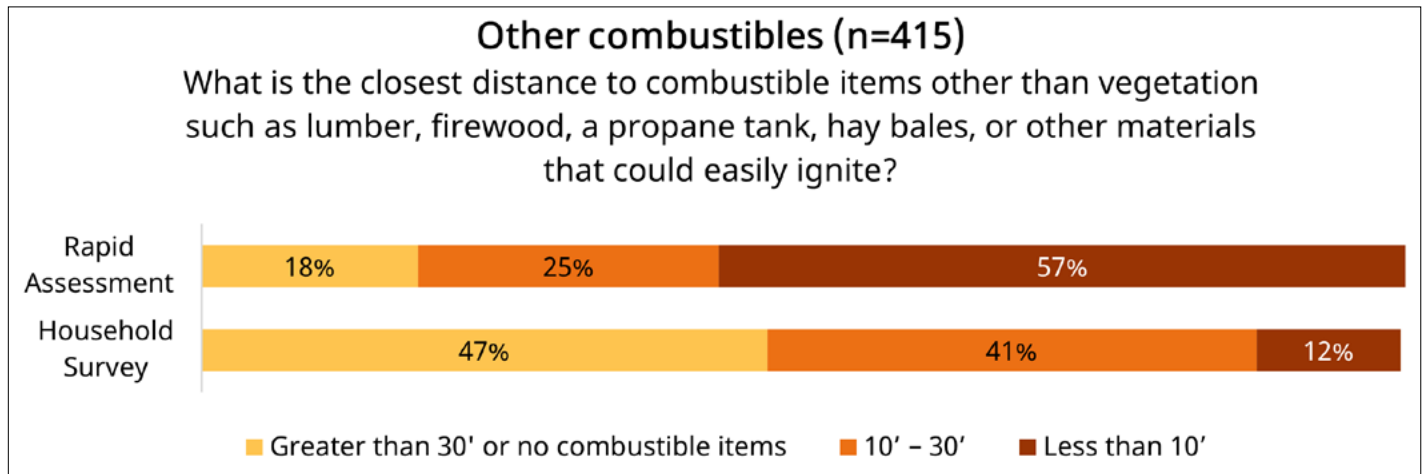


Figure 11—Distance from home to combustible materials other than vegetation, for study area properties in Park County, CO. Comparison of information obtained through household survey versus rapid assessment. N = 415 respondents to this survey question.

Home ignition potential

The design of a structure and the building materials utilized in its construction play a significant role in the ignitability of a home in a wildfire event. The following four attributes relate to home ignition potential.

Roof

Roof material has been shown to have a dramatic influence on the ignitability of a residence during a wildfire. Roof covering such as metal, tile, or asphalt composition shingles resist ignition to wildfire, while combustible materials such as wood shingles can catch on fire easily.

Most (87%) of the roofs in the paired dataset were noncombustible. A greater number of respondents (98%) reported having a noncombustible roof. See figure 12.

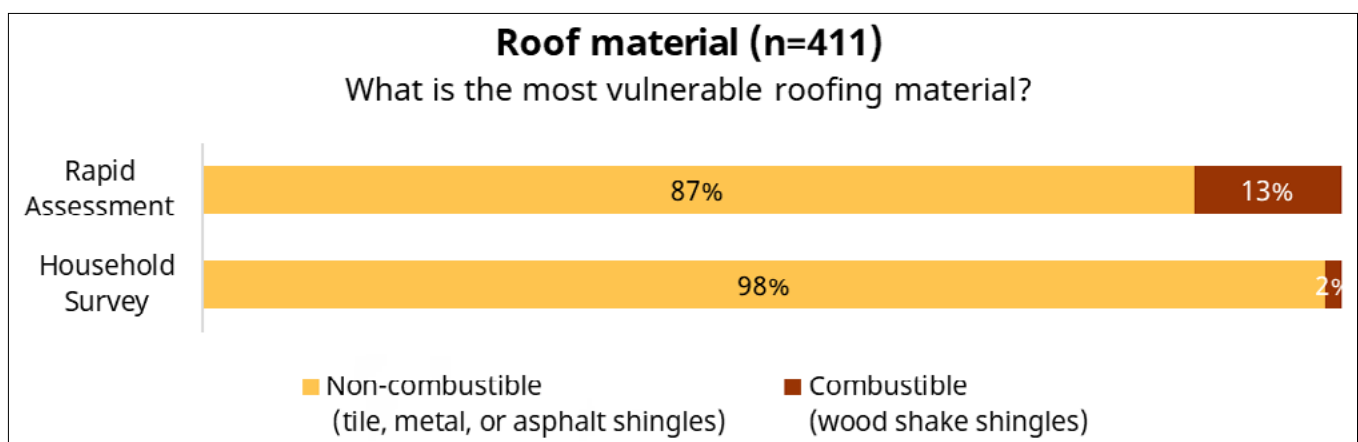


Figure 12—Combustibility of residential roof type, for study area properties in Park County, CO. Comparison of information obtained through household survey versus rapid assessment. N = 411 respondents to this survey question.

Siding

The design, materials, and construction of a structure's exterior walls affect the ignitability of a home during a wildfire event. Wood siding that is unmaintained and has noticeable gaps is more receptive to trapping blowing embers than noncombustible materials like metal or stucco. Siding is categorized here as low risk or noncombustible (e.g., stucco, brick, stone), medium risk of combustion (log or heavy timbers), or high risk of combustion (wood or vinyl).

Across the paired dataset, the majority (99%) of homes had low risk siding. A slightly lower percentage of respondents (85%) placed their siding into the low-risk category. See figure 13.

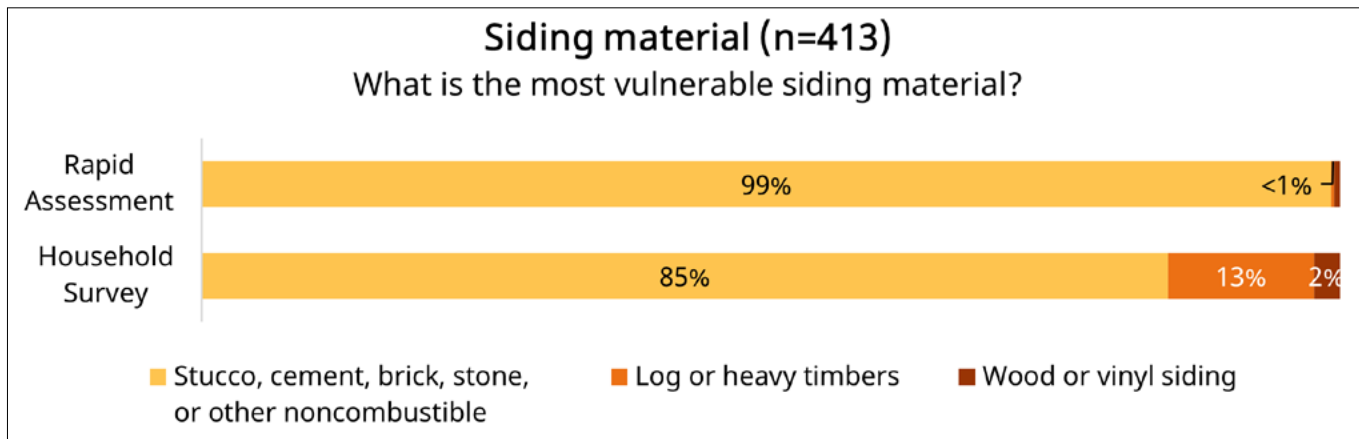


Figure 13—Residential exterior siding type, categorized by material into low, medium, and high-risk categories, for study area properties in Park County, CO. Comparison of information obtained through household survey versus rapid assessment. N = 413 respondents to this survey question.

Decking and fencing

Building materials used for the construction of attachments to the structure (e.g., decks, fences) present a significant ignition vulnerability due to the expansive surfaces that are exposed to wind-driven embers, the ability for attachments to trap embers, and the associated convective and radiant heat. The rapid assessment evaluated whether homes had combustible attachments (e.g., made of wood or composite). Survey respondents reported whether they had a combustible balcony, deck, porch, or fence attached to their house.

Across the paired dataset, most (96%) of homes had attachments made of combustible materials. A similar percent of respondents reported the presence of combustible attachments (95%). See figure 14.

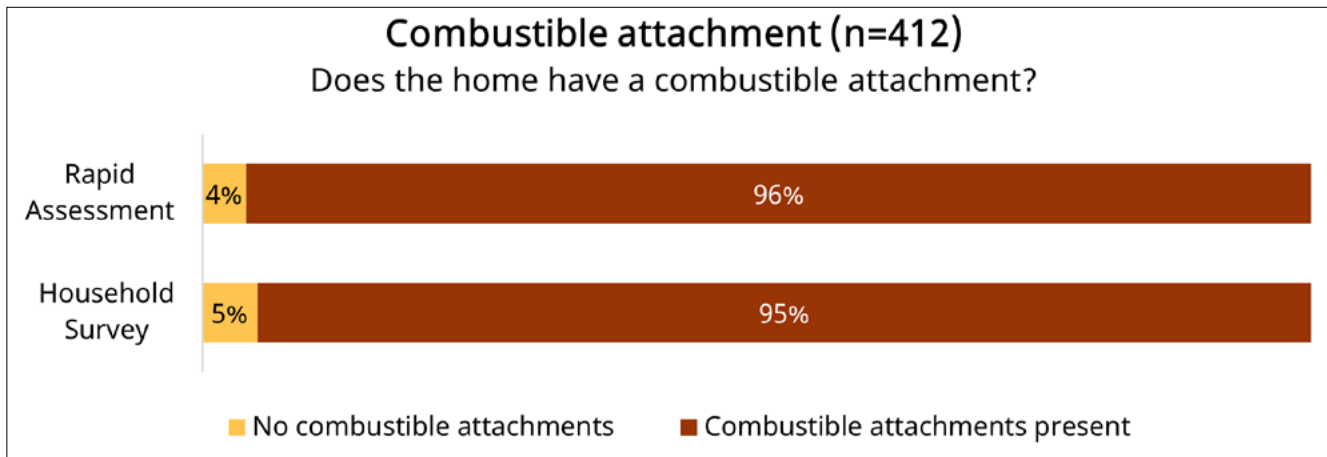


Figure 14—Residential attachments (e.g., deck or fence) categorized by combustion risk, for study area properties in Park County, CO. Comparison of information obtained through household survey versus rapid assessment. N = 412 respondents to this survey question.

Proximity to adjacent structures

Home to home ignitions (i.e., conflagration) are a significant factor in the spread of fire through more densely built environments. Homes and structures are generally built with combustible materials and contain gutters, porches, and other vulnerable locations where embers can get trapped and combust, and then pass the fire to neighboring properties.

The majority of homes (83%) are more than 100 feet from the closest neighboring home, the safest category. Seventy-six percent of survey respondents thought the closest neighboring home was more than 100 feet away. See figure 15.

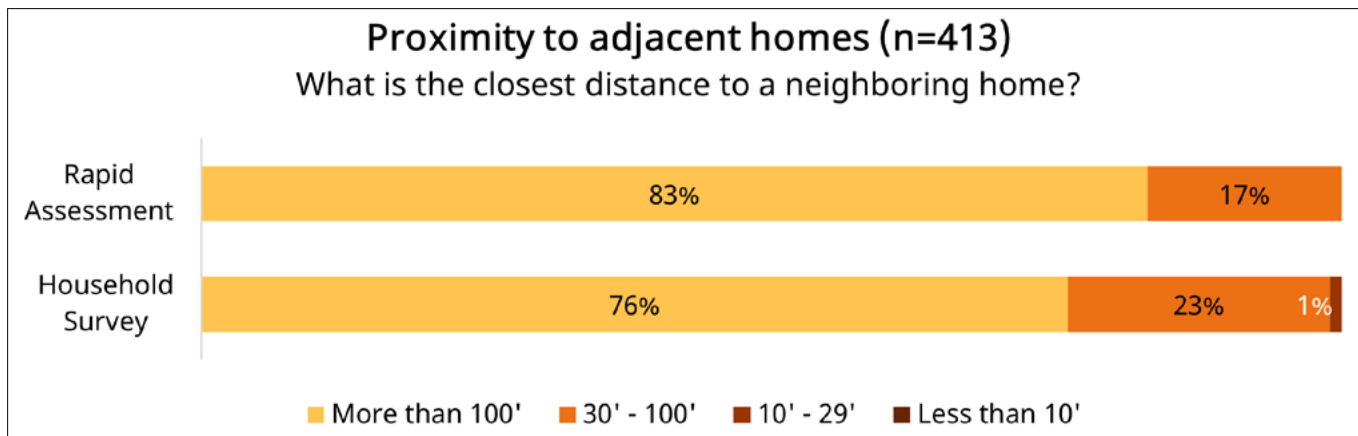


Figure 15—Distance to adjacent structures, for study area properties in Park County, CO. Comparison of information obtained through household survey versus rapid assessment. N = 413 respondents to this survey question.

SOCIAL DIMENSIONS OF WILDFIRE IN PARK COUNTY— HOUSEHOLD SURVEY RESULTS

The respondents' homes were built as long ago as 1920 and as recently as 2020, with an average year built of 1985. Respondents moved into their home as long ago as 1978, with an average move-in date of 2004, nearly 20 years ago. All of the survey respondents are owners and most (94%) occupy their residence every month of the year.

More than half the respondents were male (63%), and the average respondent age was 60 years. Forty-one percent of respondents were retired, while 46% were employed full-time, and 10% were employed part-time. Most respondents were highly educated, with 62% having at least a college degree, and 17% having an advanced degree (M.D., M.A., M.S., Ph.D., etc.). More than half (55%) reported a household income over \$75,000.

Origins of Wildfire Perceptions and Knowledge

Communication about wildfire

Current and preferred modes of communication

Community programs undertake various outreach efforts to communicate wildfire risk information. We asked survey respondents by what modes they currently receive wildfire risk communications. At the time of the survey, the top two most frequent modes of wildfire risk communication were TV news (45%) and mailed newsletters (42%). See figure 17.

Since preferred modes of communications may vary by community, and some modes of communication may not have been available at the time of the survey, respondents were also asked by what modes would they prefer to receive wildfire communication. Seventy-six percent of respondents preferred email/e-newsletter, while 72% preferred to receive wildfire risk information via mailed newsletters. Other top preferred modes of communication included in-person interactions (58%), internet (nonsocial media) (54%), and community meetings (46%). The least preferred mode of communication was newspaper (24%). See figure 16

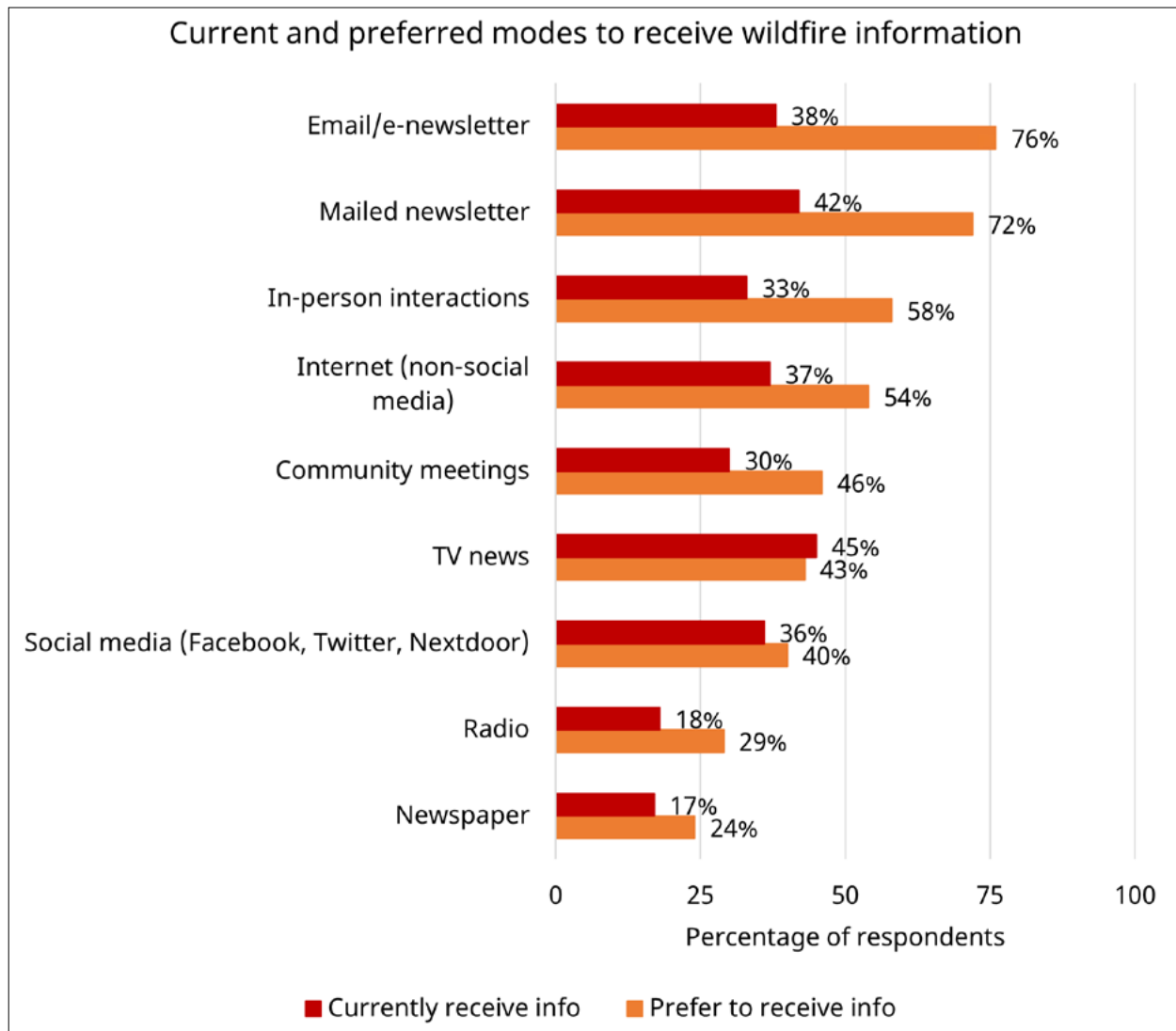


Figure 16—Comparison of used and preferred modes of communication about wildfire risk, ordered by current modes of communication, as reported by respondents residing in the study area in Park County, CO. Survey respondents were able to select multiple options. N = 391–397 respondents to current modes; n = 381–393 respondents to preferred modes.

Sources of information and reported usefulness

Respondents were also asked to report what sources of information they have received for wildfire risk information and to evaluate the usefulness of those sources. In the graph below, respondents who found the source very or extremely useful are calculated as a percentage of only the respondents who indicated that they have received the source.

The most received sources of wildfire information were the local fire department (65%) and a community group (57%). The local fire department was also considered the most useful source, with 43% of respondents rating the wildfire information from this source as very or extremely useful. See figure 17.

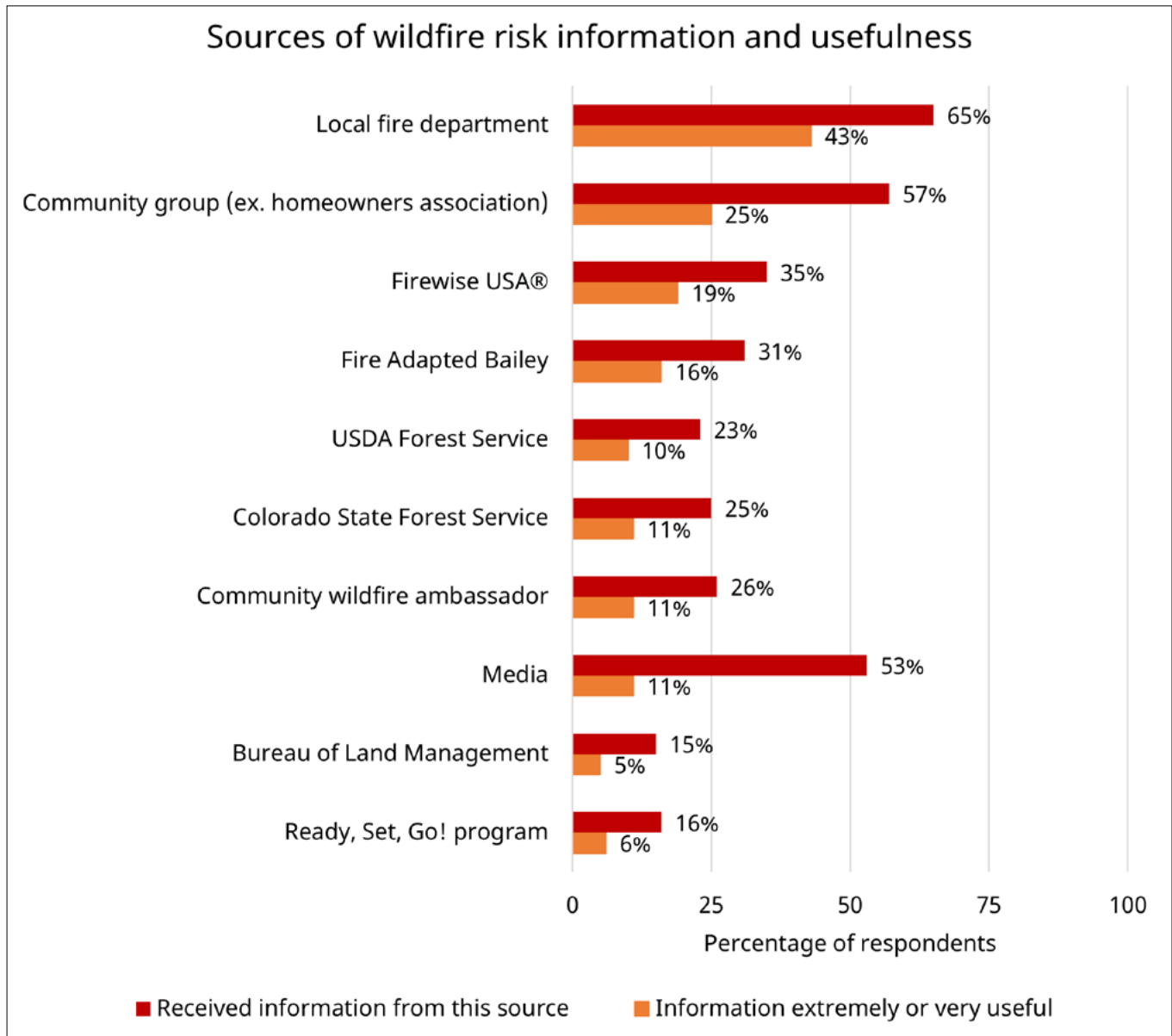


Figure 17—Percentage of respondents who received wildfire risk information, by source, as reported by respondents residing in the study area in Park County, CO. These data are compared to the percentage of people who said they found each source's wildfire risk information very or extremely useful (percentage of all respondents who received wildfire risk information from that particular source). N = 405–410 respondents to these survey questions.

In addition to formal sources of information, respondents also receive and provide information through interactions with their neighbors. Sixty-two percent of survey respondents reported talking with a neighbor about wildfire. See figure 18.

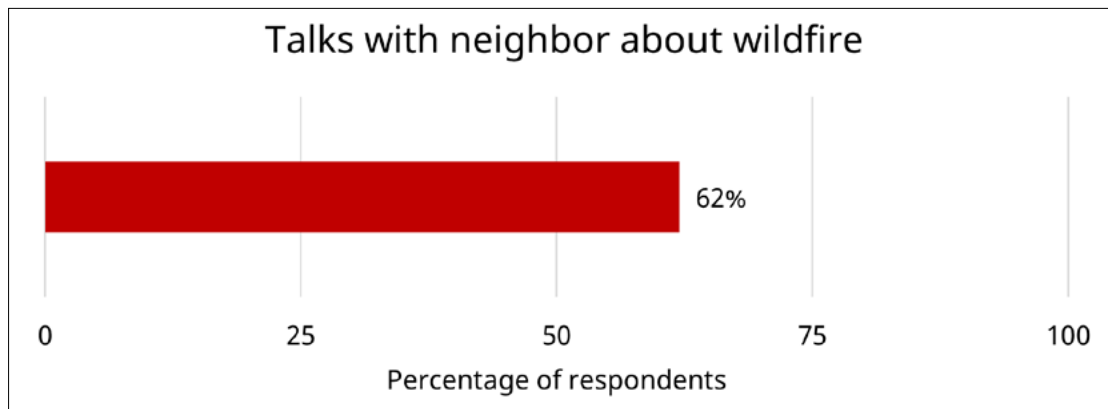


Figure 18—Percentage of respondents residing in the study area in Park County, CO, who reported talking to their neighbor about wildfire. N = 411 respondents to this survey question.

Although few survey respondents (5%) reported that all of their neighbors have taken action to address wildfire risk, a quarter (23%) reported that most of their neighbors have taken action and most (60%) reported that some of their neighbors have taken action. Twelve percent reported that no neighbors have taken action. See figure 19.

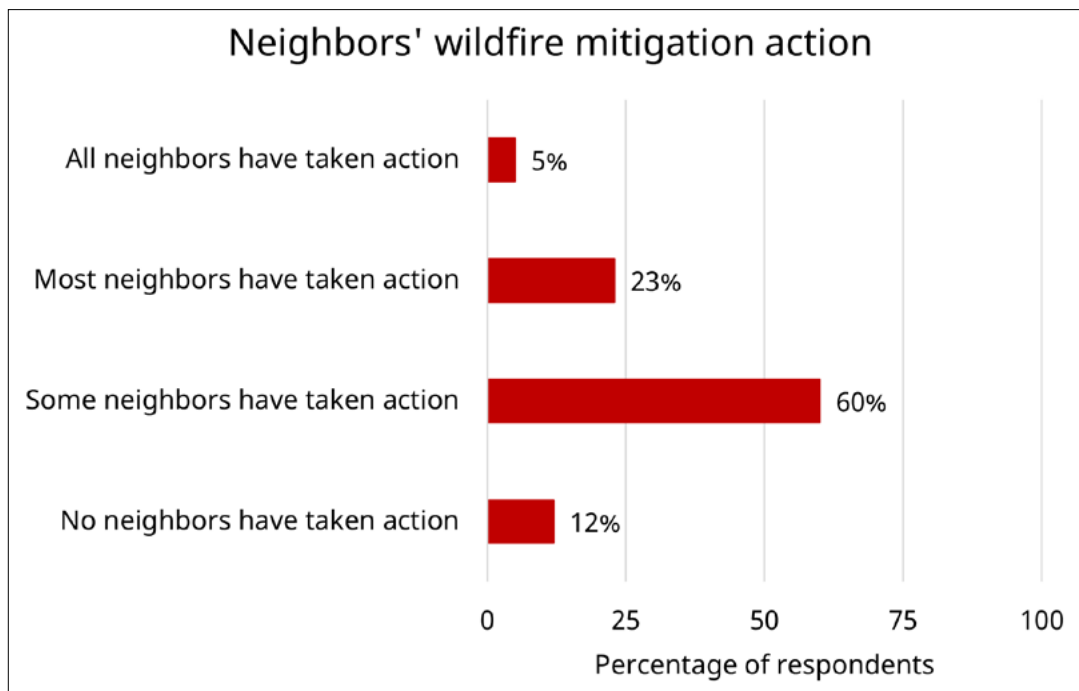


Figure 19—Respondents' estimates of how many neighbors take wildfire mitigation action, as reported by respondents residing in the study area in Park County, CO. N = 407 respondents to these two survey questions.

Wildfire experience

The majority of survey respondents have had very little direct experience with wildfire. Very few respondents have had fire damage or smoke damage, and none reported a home destroyed by fire. However, 29% have evacuated due to a wildfire. See figure 20.

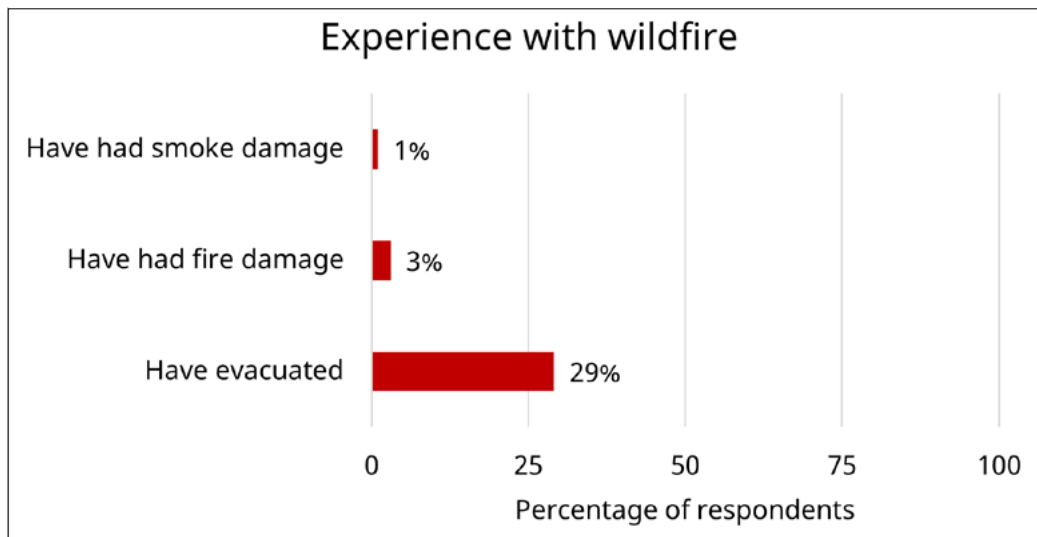


Figure 20—Respondent experience with various impacts of wildfire, as reported by respondents residing in the study area in Park County, CO. N = 404–413 respondents to this survey question.

The survey also asked respondents how close a wildfire has come to their property in the past. Most respondents (73%) have experienced wildfire within 10 miles of their property, and 30% within 2 miles of their property. See figure 21.

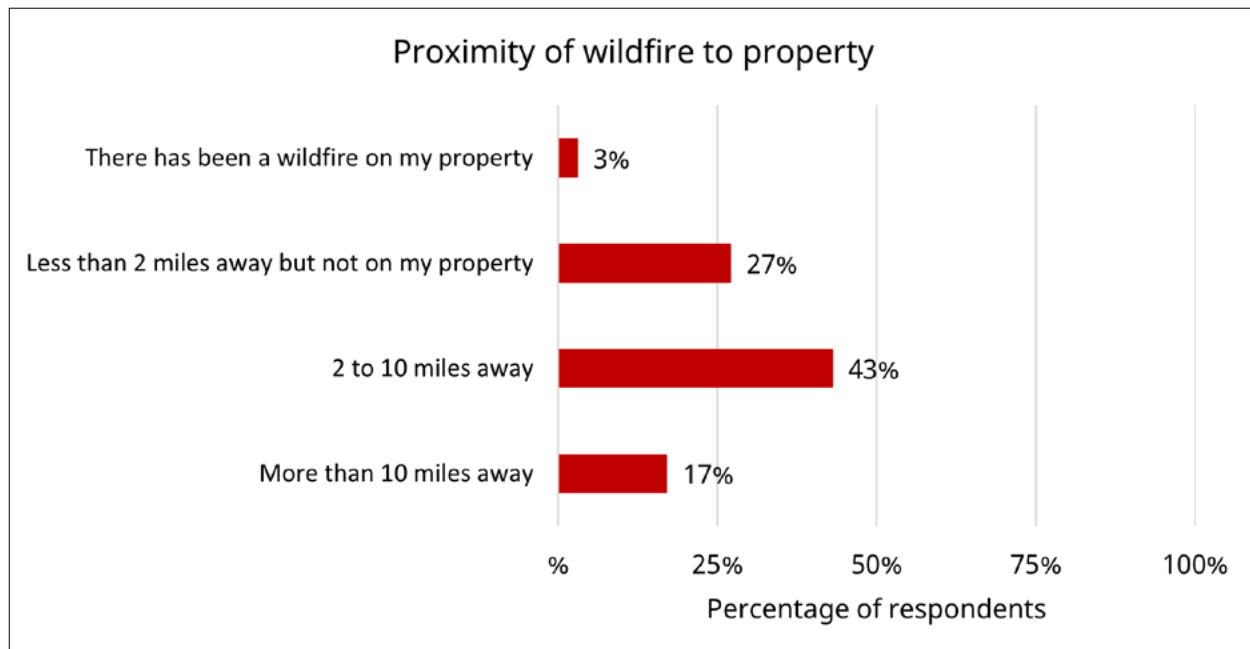


Figure 21—Respondent estimates of how close a wildfire has come to their property, as reported by respondents residing in the study area in Park County, CO. N = 413 respondents to this survey question.

Notions of hazard and response

Respondents were asked to what extent they agree or disagree with a series of wildfire attitude statements, on a scale from 0 to 10. Here, we report on the percentage of respondents who indicated that they agreed or strongly agreed (5 or higher on the scale) with the statements. Overall, there is strong consensus regarding several aspects of wildfire. Most respondents agreed or strongly agreed that wildfires should be put out if they threaten human life (94%) and homes (92%). However, 89% agreed that “Wildfires are a natural part of the balance of a healthy forest/ecosystem.” Providing more context to that statement, 76% agreed that “During a wildfire, saving homes should be a priority over saving forests.” See figure 22.

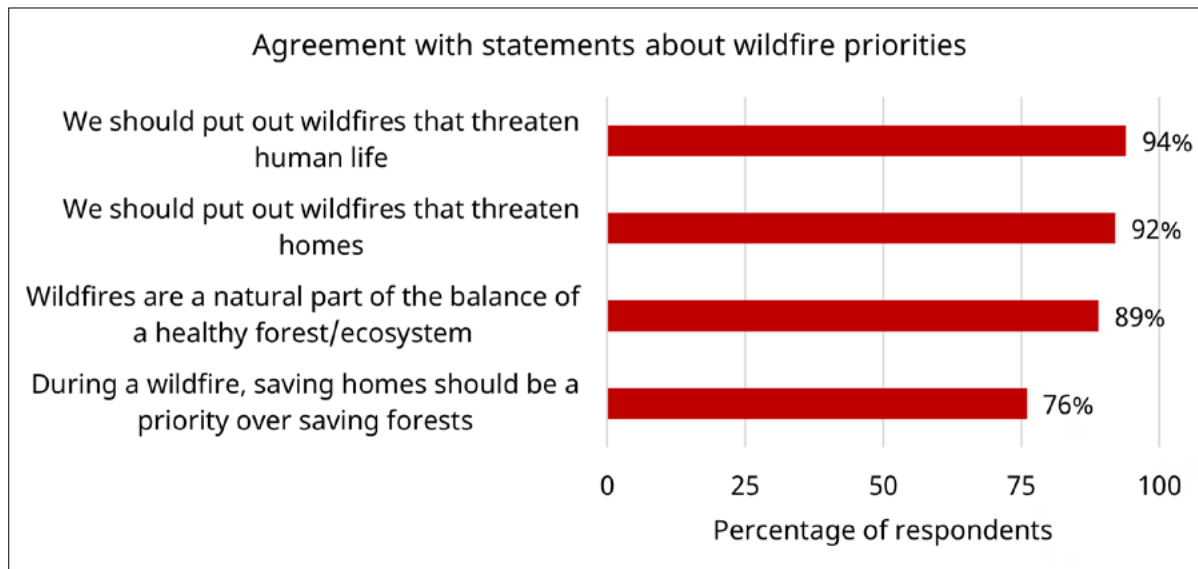


Figure 22—Agreement with four statements about priorities between human and natural resources during a wildfire, as reported by respondents residing in the study area in Park County, CO. N = 413–415 respondents to each survey statement listed.

Perhaps due to the high number of study respondents who have experienced a wildfire near their property, 64% of respondents agreed or strongly agreed that “My property is at risk of wildfire.” Notably, 30% of respondents agreed that “Wildfires threaten my community water supply.” See figure 23.

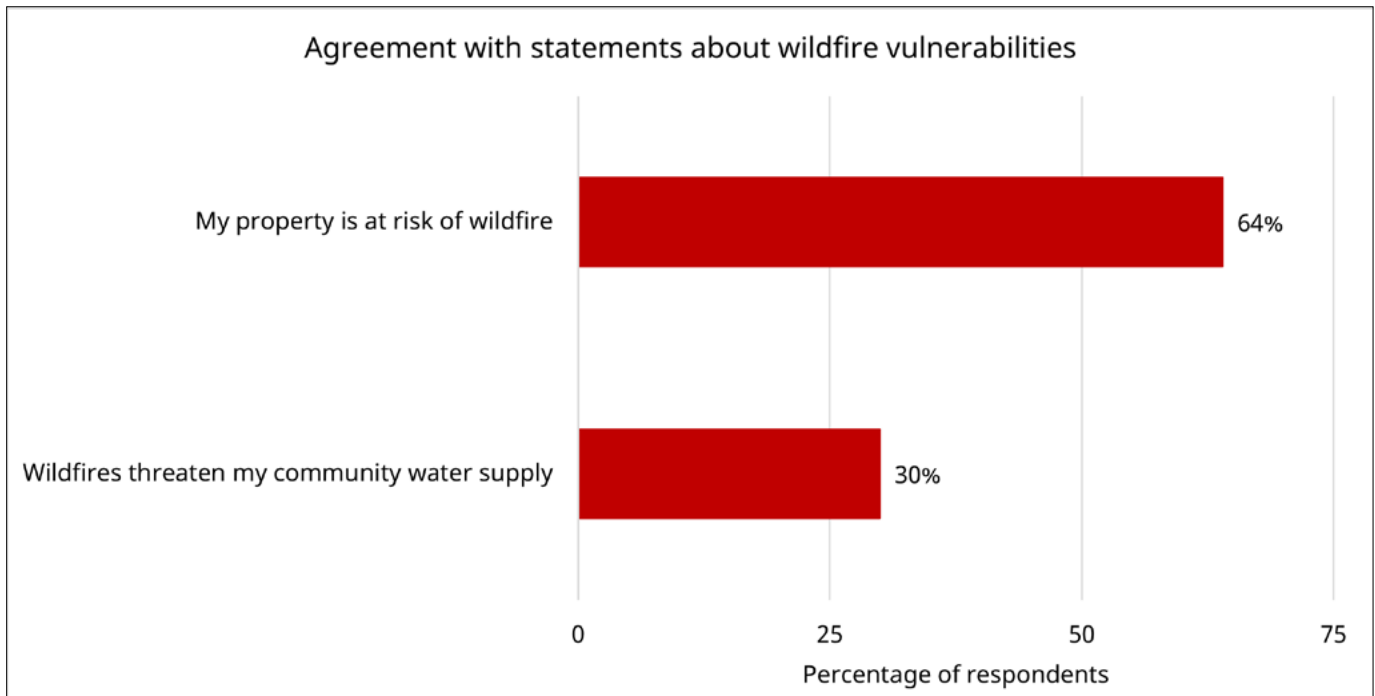


Figure 23—Agreement with two statements about whether wildfire threatens the respondent’s property and water supply, as reported by respondents residing in the study area in Park County, CO. N = 410–413 respondents to each survey statement listed.

Statements about managing wildfire impacts garnered less agreement overall. Forty percent of respondents agreed that “With proper technology, we can control most wildfires,” suggesting that most (60%) disagree that we can control most wildfires, given the proper technology. However, providing context to that statement, respondents appear to recognize the limited availability of wildfire suppression resources. Thirteen percent of respondents agreed that “Local firefighters will have sufficient resources to protect threatened homes” and 9% agreed that “Local firefighters will have sufficient resources to keep the wildfire from spreading.” See figure 24.

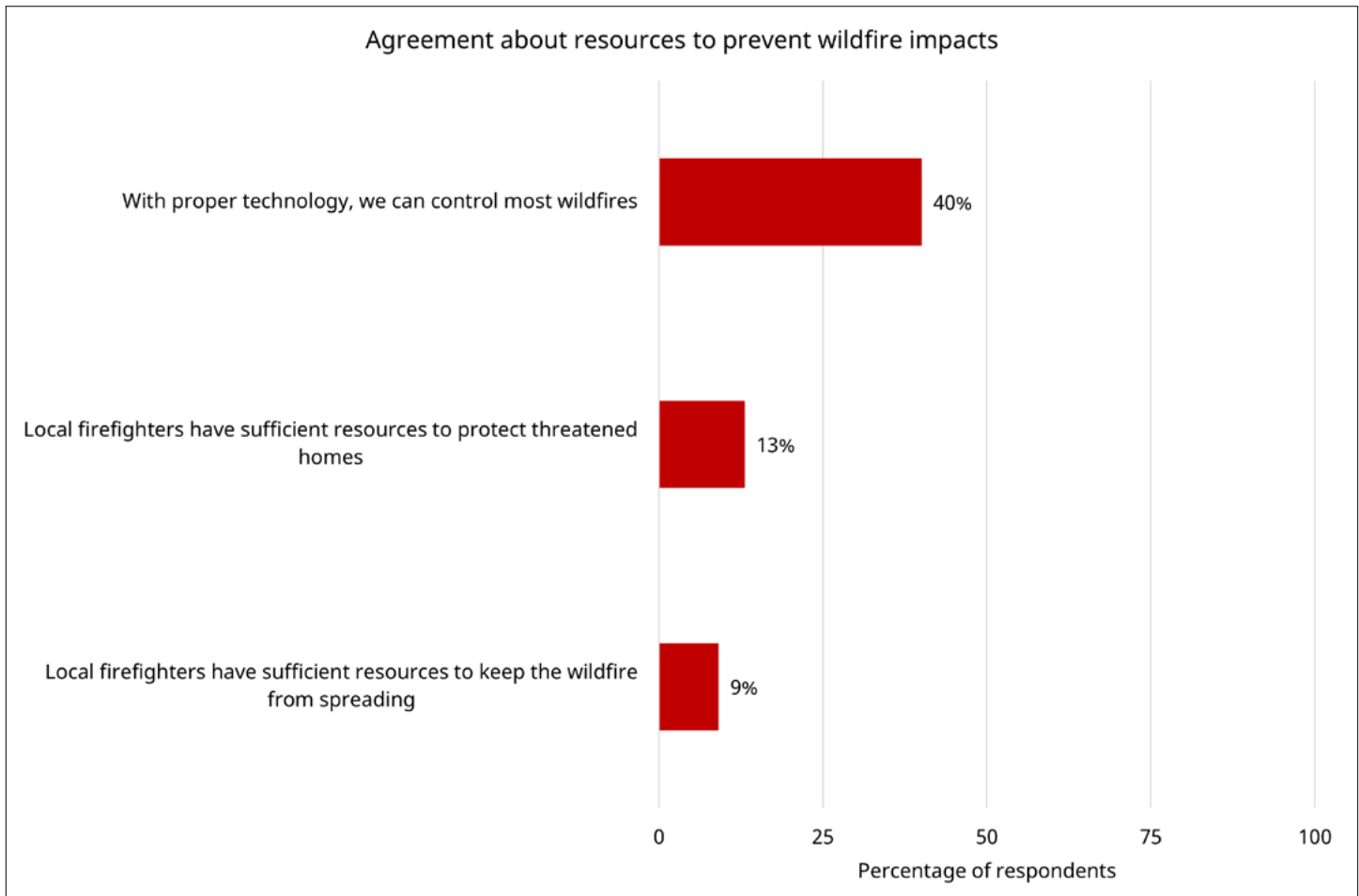


Figure 24—Agreement with three statements about available technology and resources to prevent wildfire impacts, as reported by respondents residing in the study area in Park County, CO. N = 408–412 respondents to each survey statement listed.

Notably, survey responses suggest a willingness to take responsibility for and belief in the effectiveness of personal wildfire risk mitigation action. In particular, few respondents agreed that managing wildfire danger is a government responsibility, not their own (3%), and few agreed that firefighters should put their lives at risk to protect their home (5%). Furthermore, few agreed that they will not remove trees to reduce wildfire risk (8%), and few agreed that homeowners' actions to reduce wildfire are not effective (4%). Lastly, zero respondents agreed that they plan to move out of the area in the next 12 months because of wildfires. See figure 25.

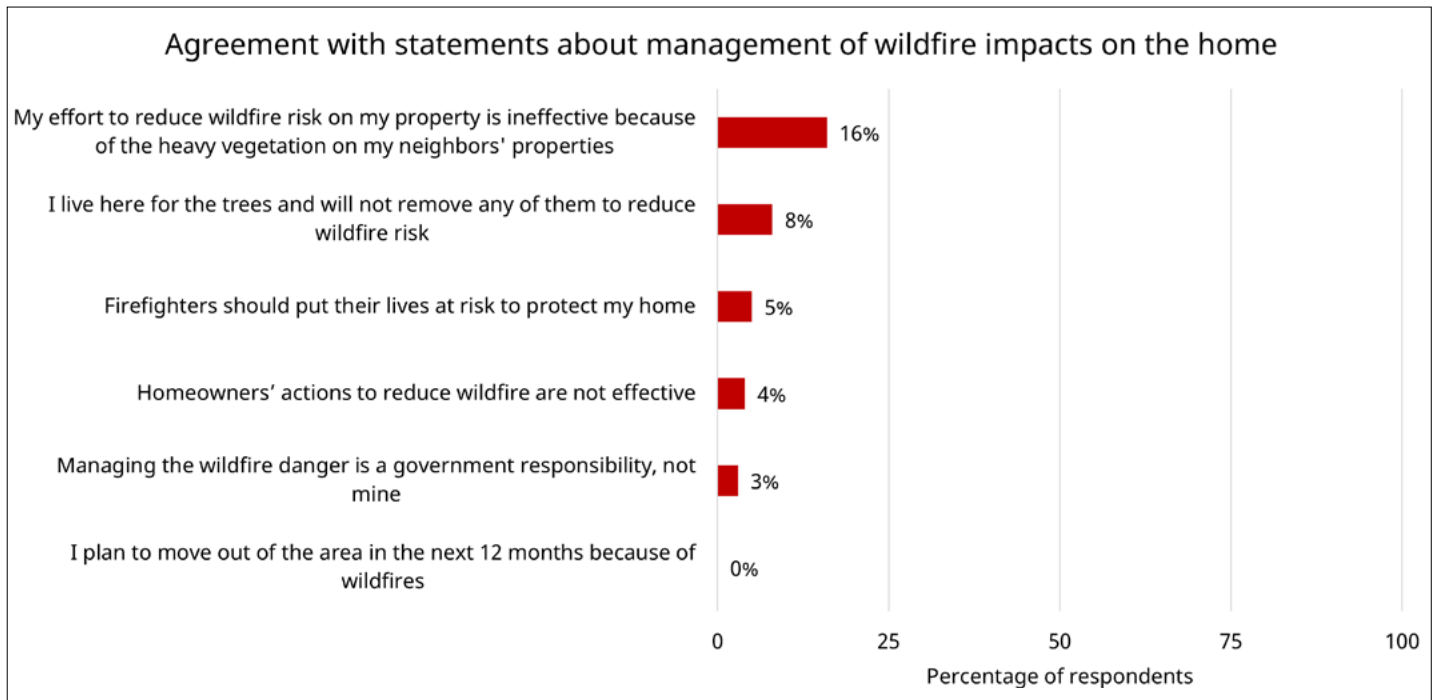


Figure 25—Agreement with six statements about personal and community management of wildfire impacts on the respondent's home, as reported by respondents residing in the study area in Park County, CO. N = 408–412 respondents to each survey statement listed.

When asked to consider expectations about wildfire, 29% of respondents thought it likely (50% or greater chance) a wildfire would be on their property in the next 12 months. However, 63% thought it likely (50% or greater chance) that if there was a wildfire on their property, their Park County home would be destroyed or severely damaged. See figure 26.

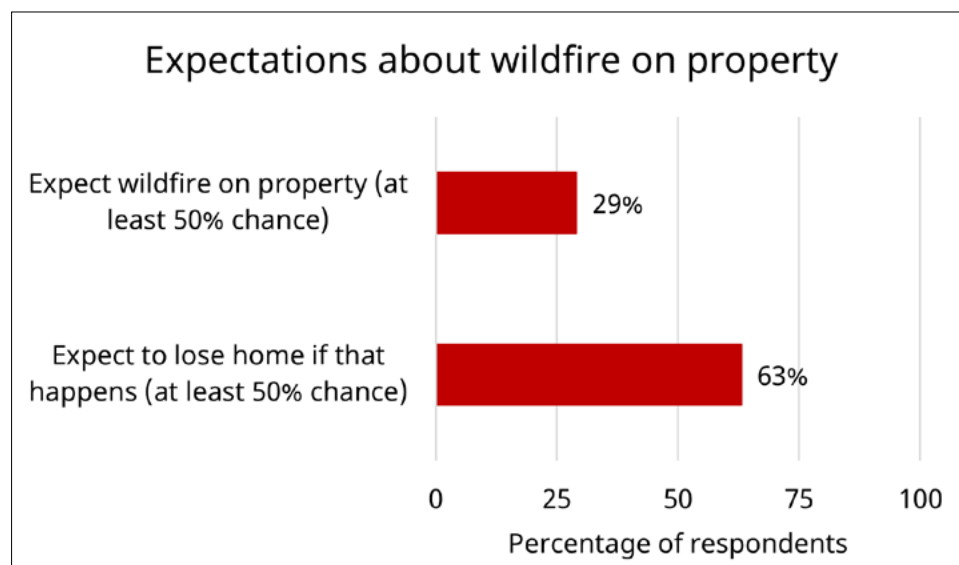


Figure 26—Estimate of the chances of a wildfire on property in the next year, and chances of losing home in that case, as reported by respondents residing in the study area in Park County, CO. N = 409–411 respondents to each survey question.

Respondents were asked “How much do you think each of the following factors contributes to the chances of wildfire damaging your Park County property in the next twelve months.” For each statement, respondents indicated the extent of the contribution as “A lot,” “Somewhat,” or “Not at all.” Twenty-eight percent of respondents thought vegetation on their neighbors’ property and 23% thought vegetation on nearby public or large undeveloped land contributed “a lot” to the chances of wildfire damaging their property. Fewer respondents thought factors closer to home would affect the chances of wildfire damage to their property, such as vegetation on their own property (19%) and physical characteristics of structures on their property (19%). See figure 27.

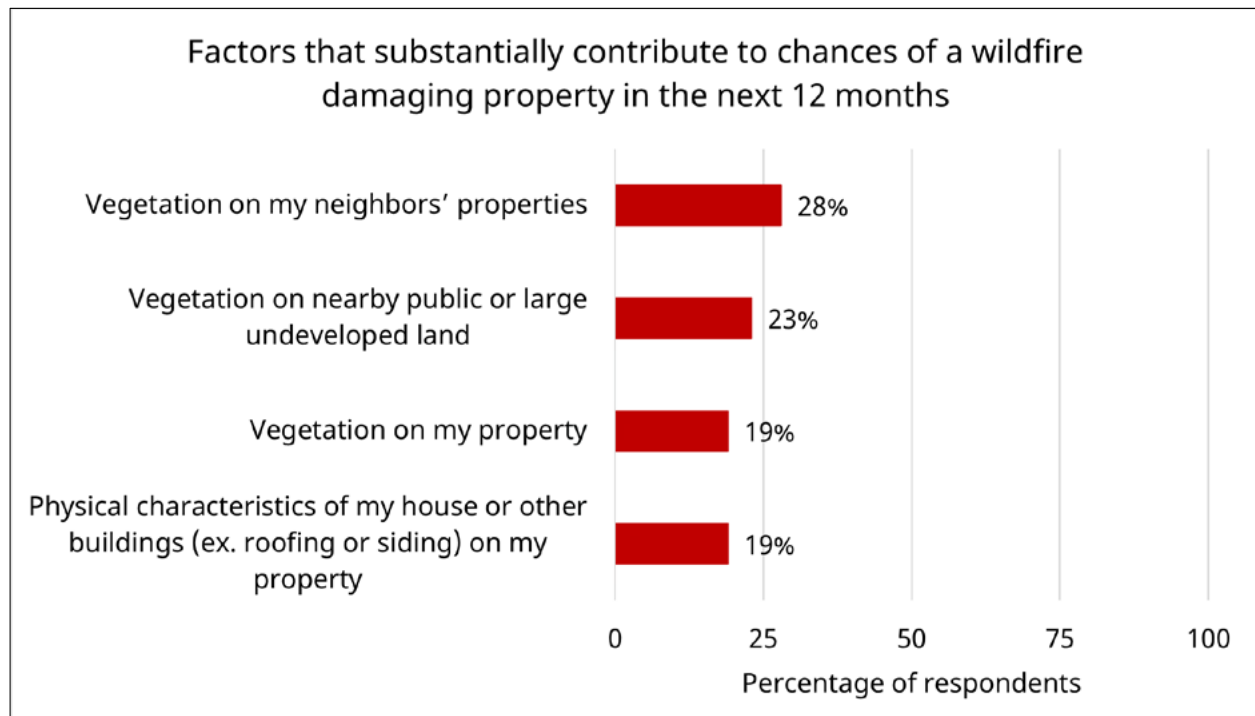


Figure 27—Percentage of respondents who thought the above factors contribute “a lot” to the chances of a wildfire damaging their property in the next 12 months, as reported by respondents residing in the study area in Park County, CO. N = 409–415 respondents to each statement listed.

Respondents were asked, “If there is a wildfire on your Park County property, how likely do you think it is that the following would occur?” For each statement, respondents indicated likelihood on a scale from “not likely at all” to “extremely likely,” or “not applicable.” In the following two graphs, we report the percentage of respondents that thought the following outcomes were very or extremely likely, excluding those who responded, “not applicable.”

Regarding ignition of the home, some respondents thought it likely that direct flame (45%) or embers (39%) would ignite their home. Fewer (20%) thought nearby homes would ignite their home. See figure 28.

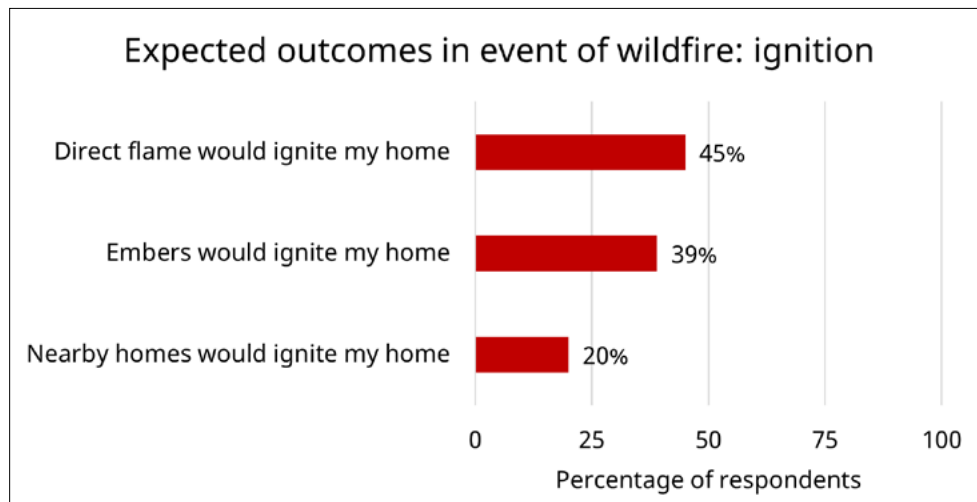


Figure 28—Percentage of respondents who thought the above sources of ignition were very or extremely likely, in the event of a wildfire on their property, as reported by respondents residing in the study area in Park County, CO. N = 409–415 respondents to each statement listed. Graph does not include survey respondents who did not respond to these questions.

In the event of a fire, 40% of respondents thought it was likely that “The fire department would save their home,” while more thought smoke damage (53%) or other physical damage (46%) was likely. Only 23% thought it was likely that “My home would be destroyed.” Forty-one percent thought their neighbors’ homes would be damaged or destroyed.

Many respondents reported that, if there was a wildfire on their property, it was likely that their trees and landscape would burn (63%). Only 16% of respondents thought they would lose money due to loss of business or income on their property. See figure 29.

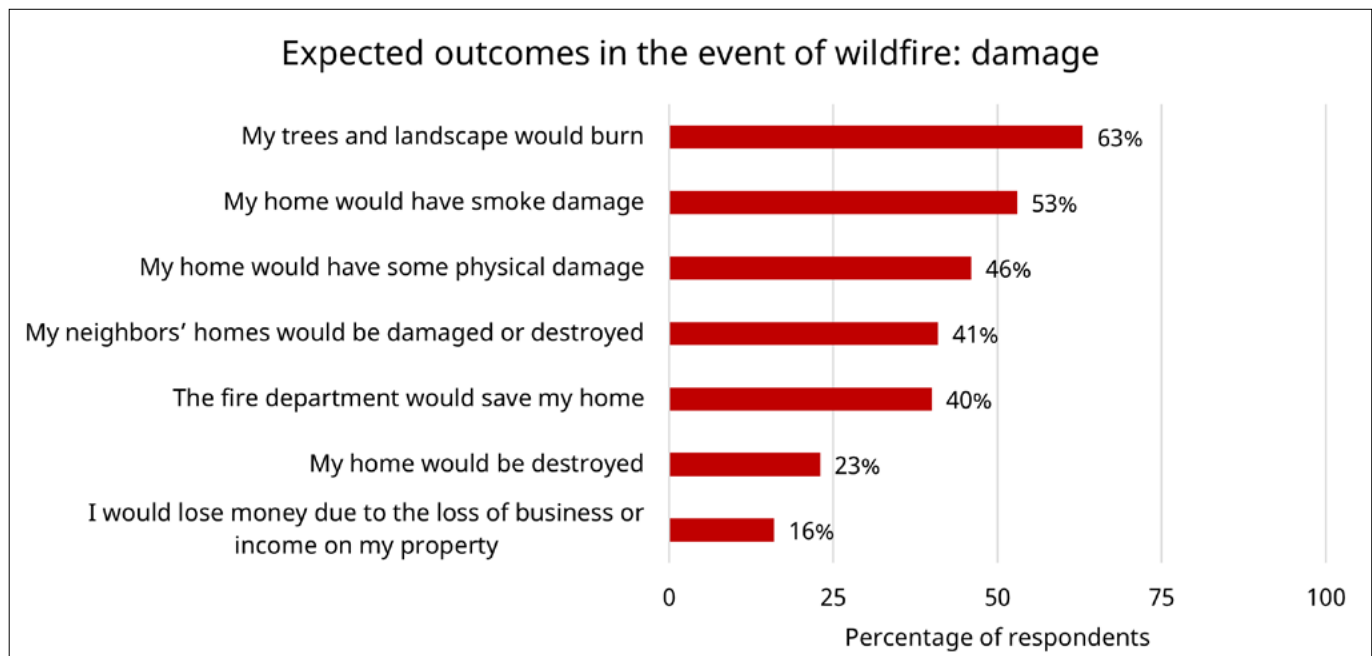


Figure 29—Percentage of respondents who thought the above forms of wildfire damage were very or extremely likely, in the event of a wildfire on their property, as reported by respondents residing in the study area in Park County, CO. N = 408–410 respondents for each survey question.

What Are Respondents Doing About Wildfire?

Wildfire preparedness

A critical component of being prepared for a wildfire is the development of an evacuation plan. Eighty-five percent of respondents reported having an evacuation plan for the people in their household. Seventy-seven percent of respondents have pets on their property, and 82% of those respondents have a plan for those pets. Only 9% of respondents have livestock on their property, and 43% of those respondents have an evacuation plan for those livestock. See figure 30.

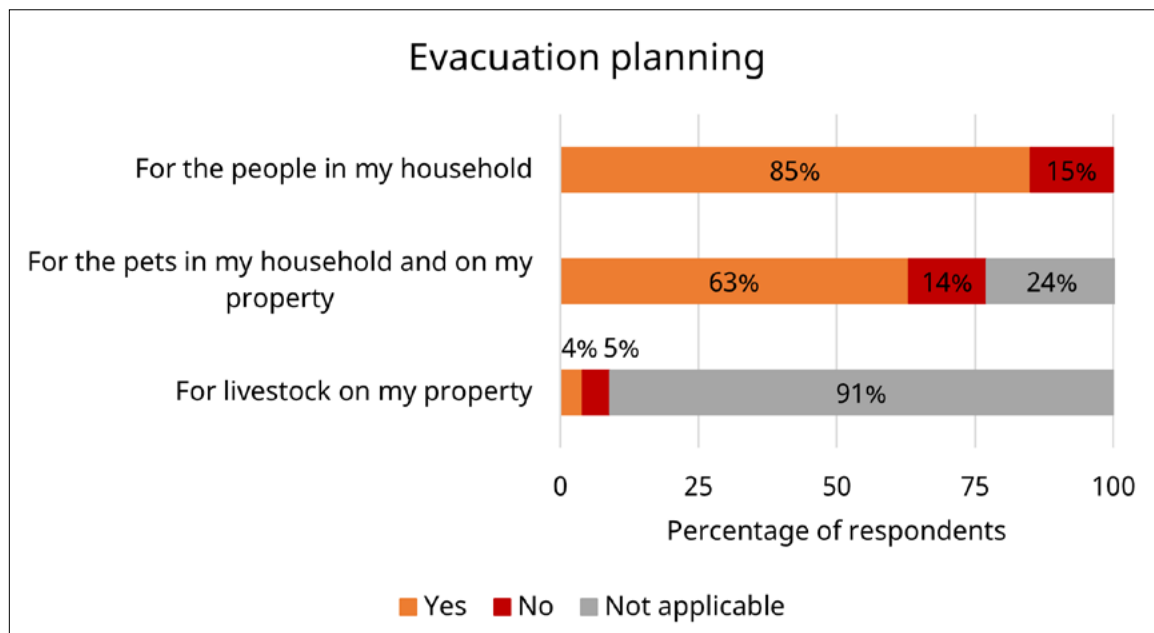


Figure 30—Percentage of respondents who have wildfire evacuation plans for the above categories, as reported by respondents residing in the study area in Park County, CO. N = 409–413 respondents for each of the above categories.

Respondents also reported what evacuation planning actions they have completed, and what type of information would help them develop an evacuation plan. Most respondents reported that they have signed up for the CodeRED emergency notification system (73%). Forty-seven percent have signed up with Park County to be notified about a Burn Ban. See figure 31.

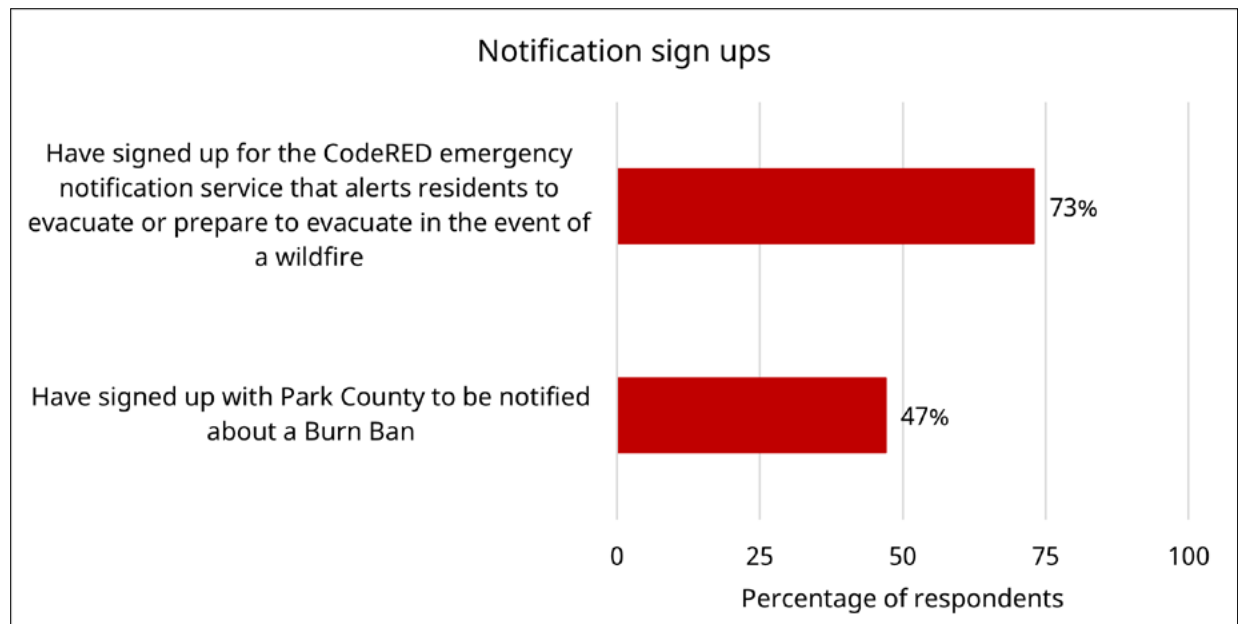


Figure 31—Percentage of respondents who have signed up for CodeRED and Burn Ban notifications as reported by respondents residing in the study area in Park County, CO. N = 413–414 respondents to wanting more information statements.

The majority of survey respondents wanted information about when to evacuate (95%), how they will be notified about evacuating (94%), safe evacuation routes (92%), where to go during an evacuation (area of refuge) (87%), and what to take and what to leave behind during an evacuation (70%). See figure 32.

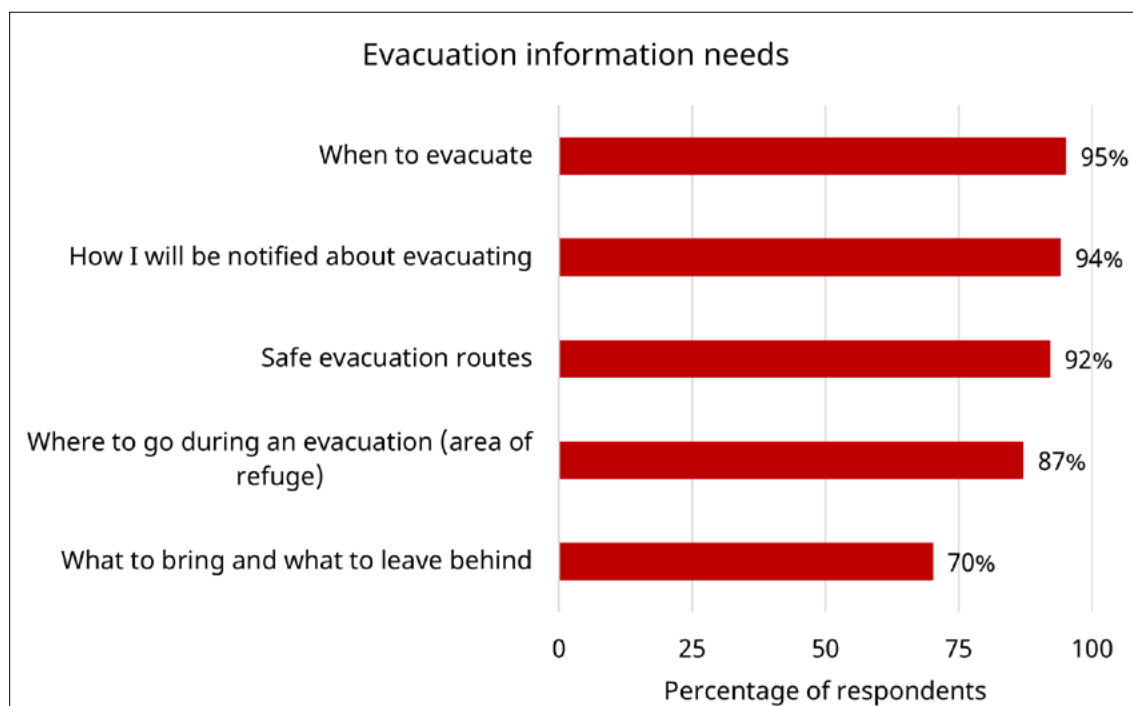


Figure 32—Evacuation information that would be helpful in evacuation plan development as reported by respondents residing in the study area in Park County, CO. N = 409–414 respondents to wanting more information statements.

Mitigation

Respondents were also asked to report on wildfire risk reduction activity on their property or nearby. Despite the fact that only 26% have met with a wildfire professional to evaluate and discuss their property's wildfire risk, many respondents reported they had taken action to reduce risk. High levels of activity were reported for having reduced vegetation on their property (93%), regularly cleared their roof and gutters (86%), and regularly mowed and raked around their home (81%). About half reported they had made their home more fire resistant (47%). It is not surprising to see such a high level of reported wildfire risk mitigation activities, given that in figure 25, only 4% of respondents agreed or strongly agreed with the statement "Homeowners' actions to reduce wildfire risk are not effective."

Some respondents also helped with wildfire risk mitigation nearby. Twenty-six percent of respondents reported they had participated in a community wildfire activity, and 26% reported they had helped neighbor(s) reduce vegetation. See figure 33.

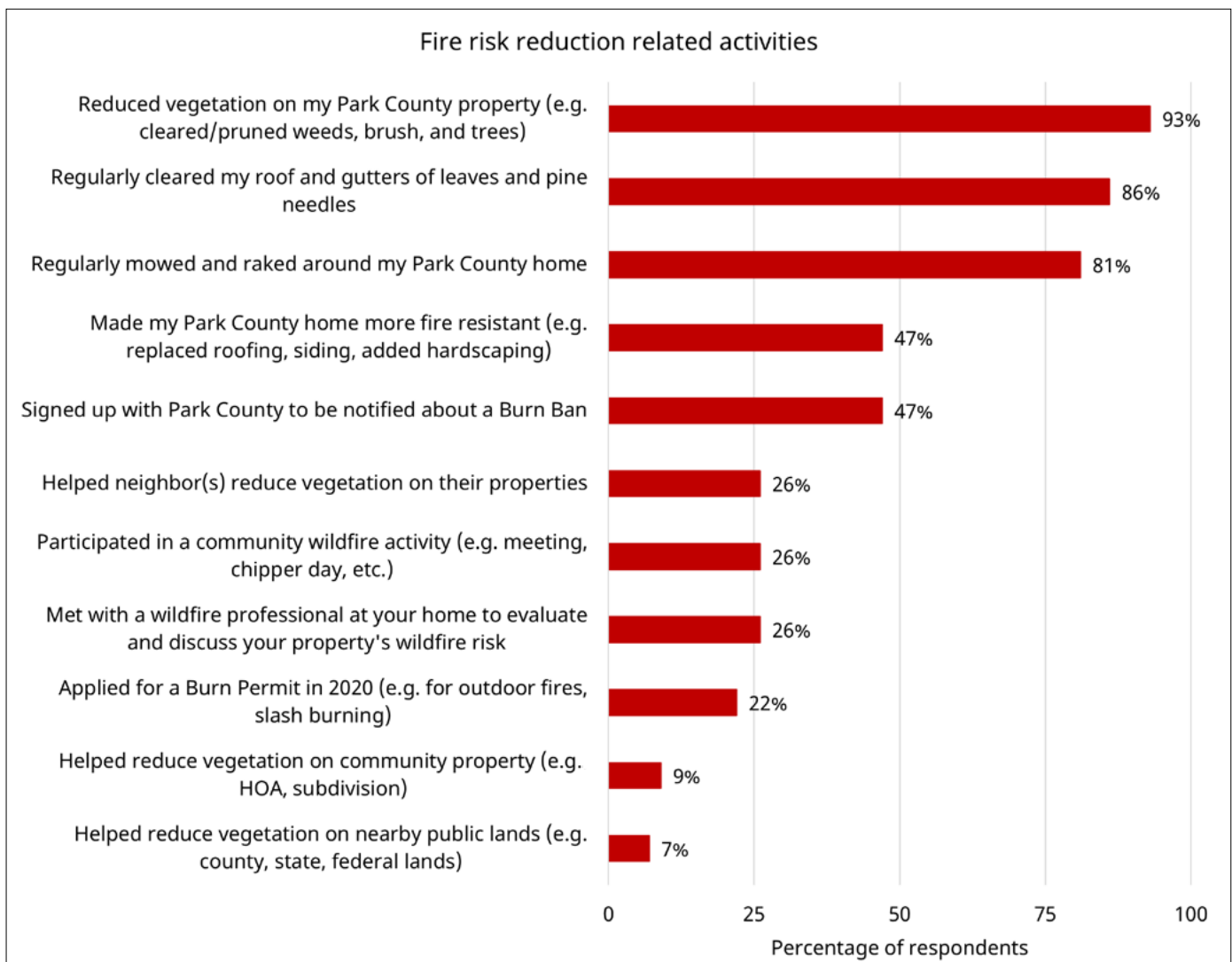


Figure 33—Percent of respondents who reported doing the above wildfire risk mitigation activities, as reported by respondents residing in the study area in Park County, CO. N = 409–415 respondents to each of the activity statements.

There is a range of mitigation approaches for managing fuels on public lands. In order to undertake those activities, it is useful to understand how acceptable these activities are to those living nearby. We provide the percentage of respondents who reported that activities were “very” or “extremely” acceptable (hereafter acceptable). Overall, there is very high support for each of the items queried. Sixty percent of respondents reported that “Burning piles of vegetation (slash piles)” was acceptable. Sixty-eight percent reported that “Managing a naturally ignited fire (such as lightning)” was acceptable and 47% reported that “Conducting a prescribed fire ignited by fire managers” was acceptable. Seventy-five percent of respondents reported that “Removing trees and reducing other vegetation” was acceptable. In addition to fuels management approaches, we also asked survey respondents about the acceptability of adopting land use regulations and building codes to reduce wildfire risk. Sixty percent of respondents reported this was acceptable. See figure 34.

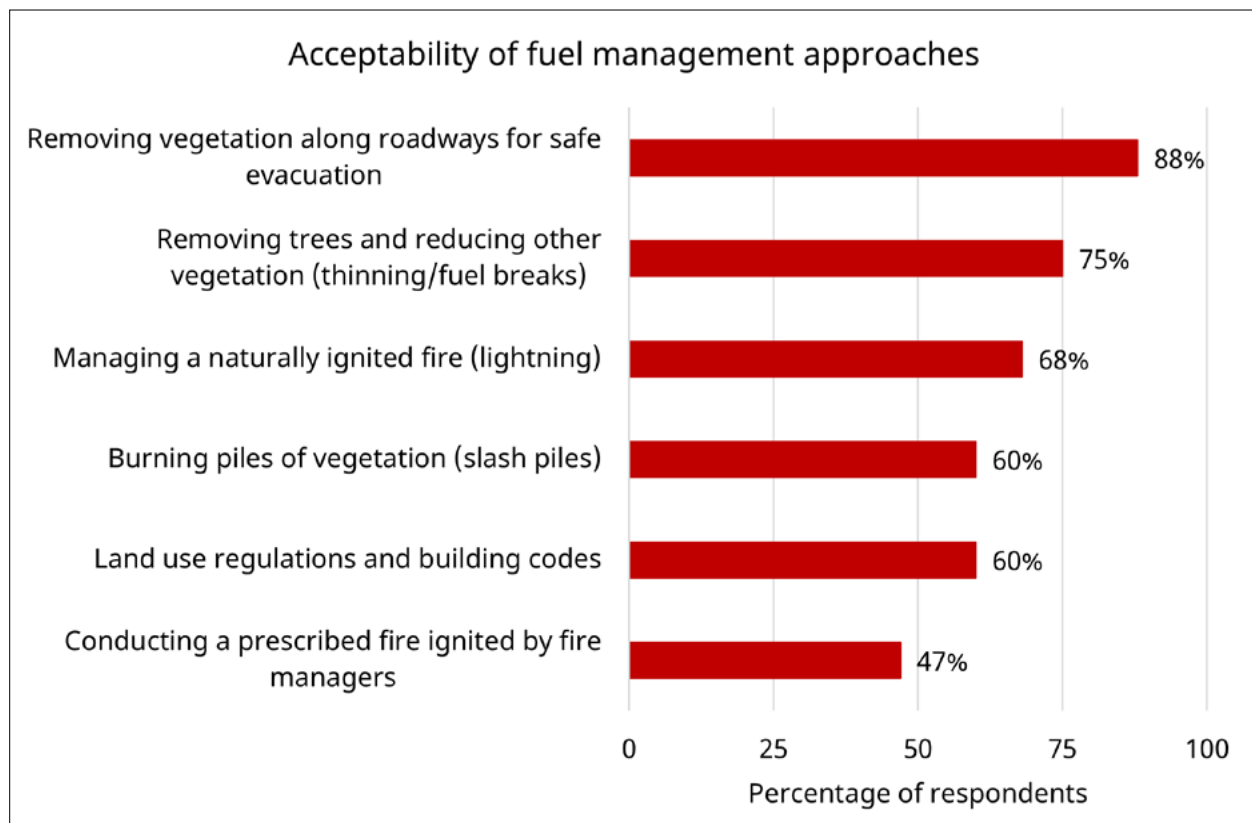


Figure 34—Percentage of respondents who found each of the above wildfire fuels management approaches very or extremely acceptable, as reported by respondents residing in the study area in Park County, CO. N = 409–414 respondents for each statement.

Barriers and incentives

Survey respondents were asked, “Do any of the following prevent you from taking action to reduce the wildfire risk on your Park County property?” Potential responses were divided into four categories, related to personal resources, lack of information, personal perspectives, and community. In each category, respondents also had the option to select “none of these.” Overall, respondents indicated that few of the barriers mentioned prevent them from taking wildfire risk reduction action.

Financial cost was the top reason respondents reported for not conducting mitigation; 44% reported this was a barrier. Physical ability (40%) and time (28%) to do the work were also top barriers. However, nearly a third (29%) reported none of these were barriers to conducting mitigation. See figure 35.

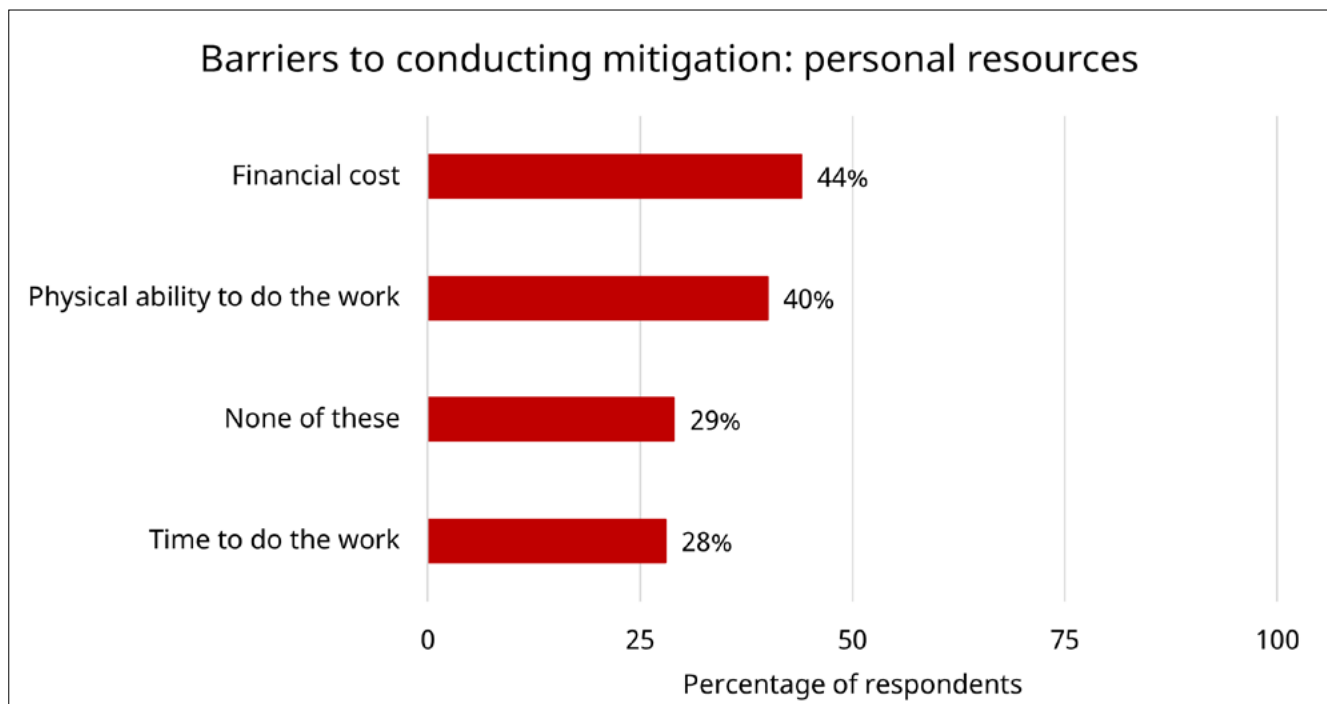


Figure 35—Personal barriers to conducting wildfire mitigation activities on property, as reported by respondents residing in the study area in Park County, CO. N = 408 respondents for each listed barrier.

The majority of respondents (57%) reported that they did not need any of the below types of information. Among those reporting barriers, a quarter indicated that lack of information on how to reduce wildfire risk (24%) and where to dispose of cut vegetation/slash (23%) were barriers. Nineteen percent identified lack of information about factors contributing to their property’s wildfire risk was a barrier. See figure 36.

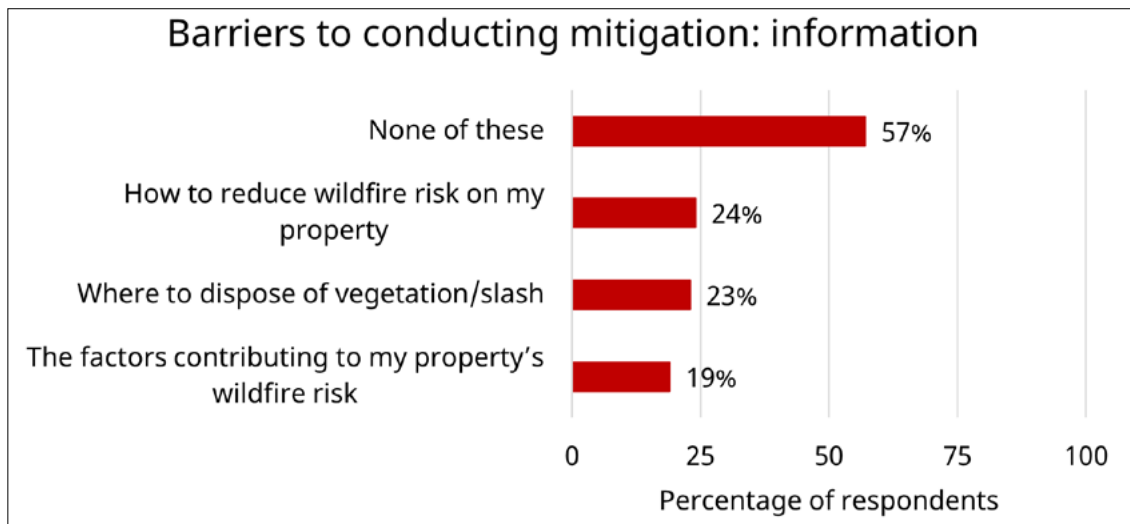


Figure 36—Information barriers to conducting wildfire mitigation activities on property, as reported by respondents residing in the study area in Park County, CO. N = 400 respondents for each listed barrier.

Few respondents reported that personal perspectives were a barrier to conducting mitigation, including not wanting to change the way their property looks (11%), not believing their action will reduce their risk (8%), and seeing risk mitigation as a low priority (6%). Seventy-six percent of respondents said none of these were barriers. See figure 37.

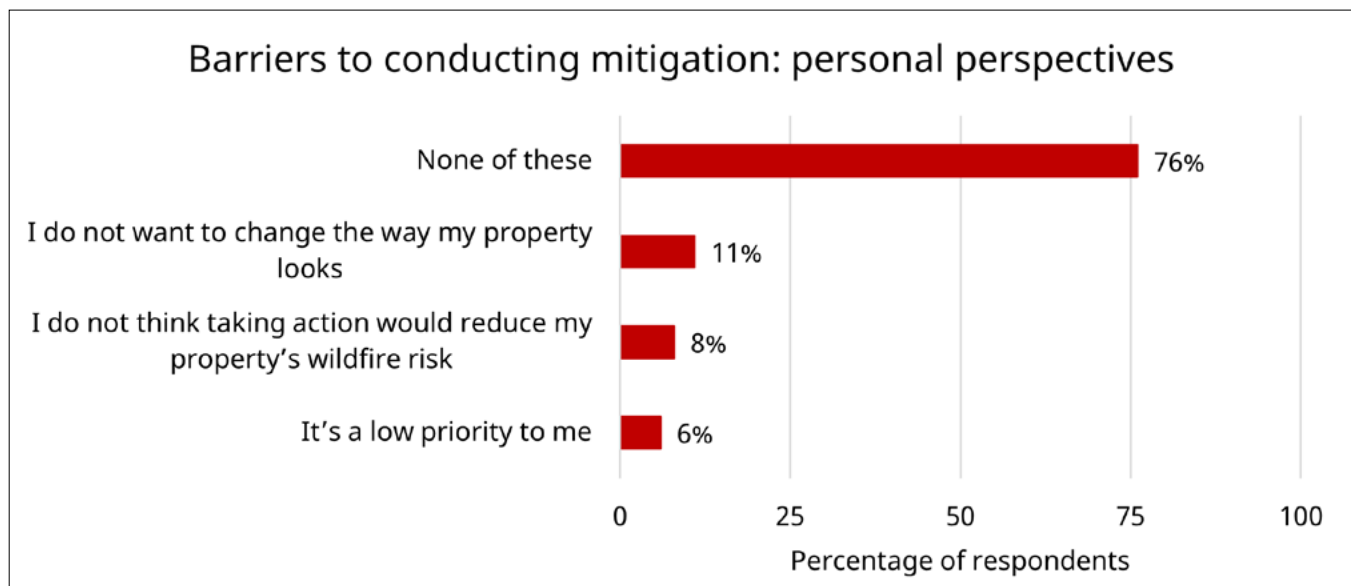


Figure 37—Personal perspectives or values that might affect wildfire mitigation activities on property, as reported by respondents residing in the study area in Park County, CO. N = 406 respondents for each listed barrier.

Overall, most respondents (71%) reported that community-related factors did not prevent them from mitigation; however, 27% identified lack of options for disposing of vegetation/slash as a barrier. See figure 38.

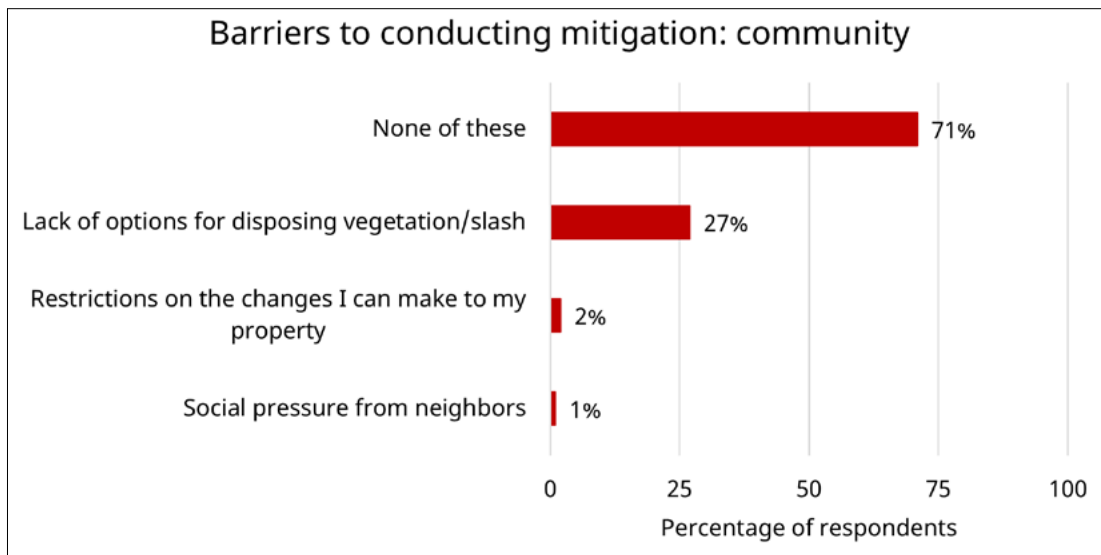


Figure 38—Community-related barriers to conducting wildfire mitigation activities on property, as reported by respondents residing in the study area in Park County, CO. N = 402 respondents for each listed barrier.

We also asked what would encourage respondents to reduce wildfire risk on their property. Possible responses were divided into the following three categories: resource, information, and other incentives for conducting mitigation. In each category, respondents also had the option to select “none of these.” Overall, information incentives were the most selected.

Within the resource incentives category, the top incentive was help doing the work (52%) followed by cost-share or financial assistance (48%). Twenty-four percent selected recommended contractors and 27% indicated that none of these resource incentives would encourage them to take action to reduce risk. See figure 39.

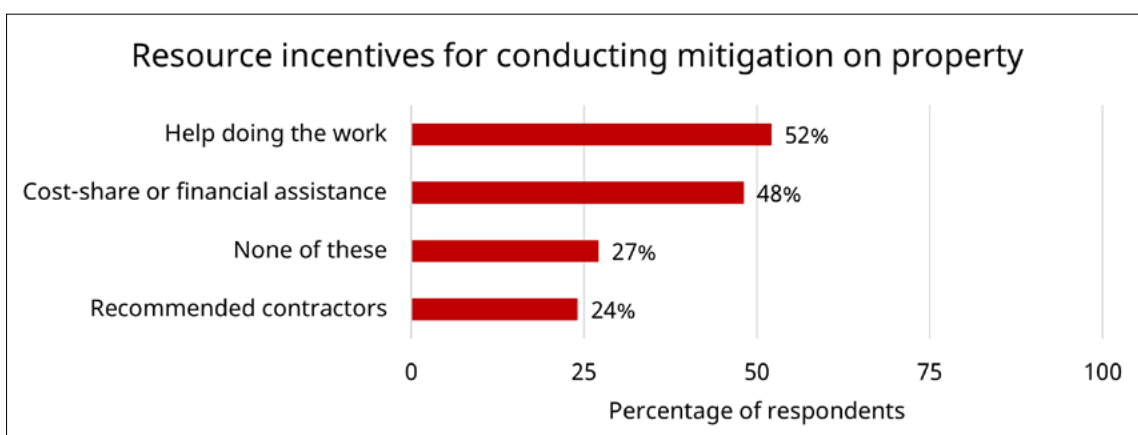


Figure 39—Resource-related incentives for conducting wildfire mitigation activities on property, as reported by respondents residing in the study area in Park County, CO. N = 402 respondents for each listed incentive.

The top incentive in the information incentives category, as well as overall, is one-one visit with wildfire experts on my property (57%), followed by a report describing my property's wildfire risk factors (52%). Videos showing risk reduction methods were less of an incentive, with 24% of respondents selecting that option. A quarter of respondents (25%) indicated that none of these information incentives would encourage them to take action to reduce risk. See figure 40.

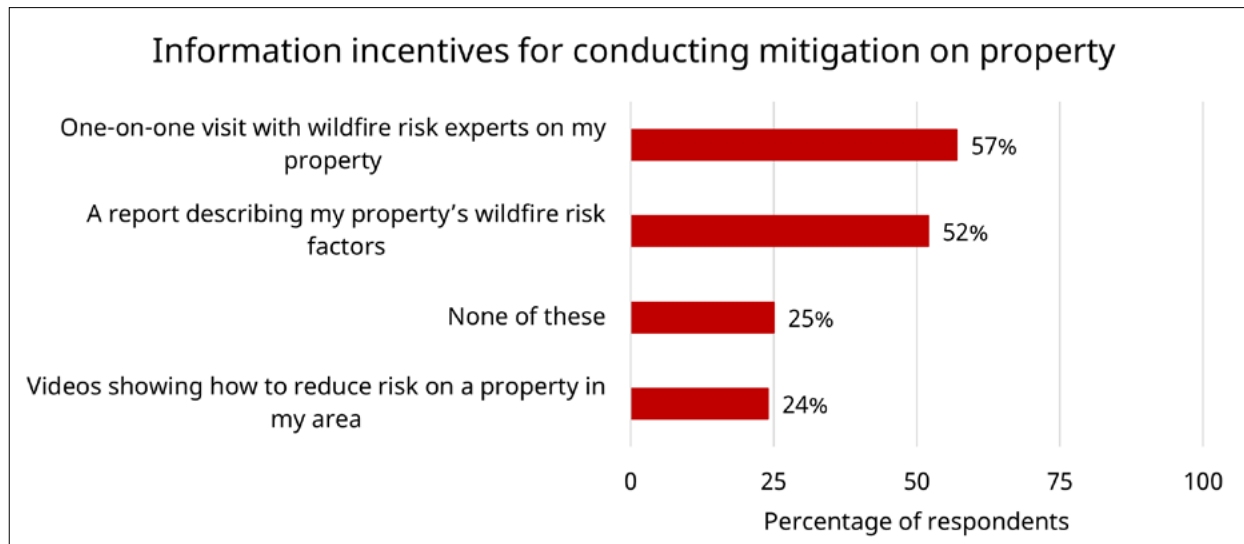


Figure 40—Information-related incentives for conducting wildfire mitigation activities on property, as reported by respondents residing in the study area in Park County, CO. N = 404 respondents for each listed incentive.

Feedback (39%) and neighborhood-organized risk reduction activities (26%) were selected as incentives by a moderate number of respondents. However, just as many respondents indicated that none of these were incentives. Notably, few respondents (9%) selected recognition for taking action as an incentive for conducting mitigation. See figure 41.

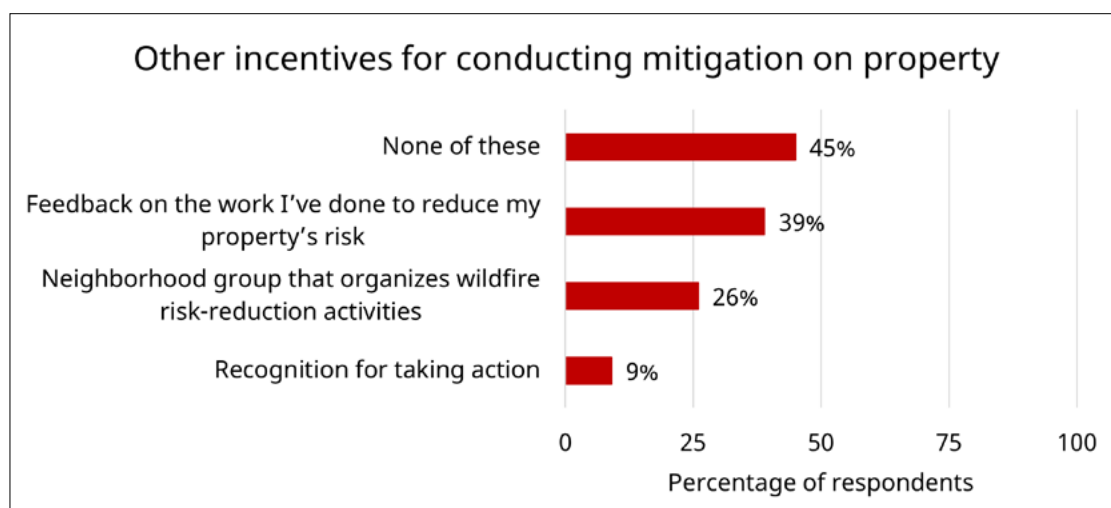


Figure 41—Other incentives for conducting wildfire mitigation activities on property, related to the respondent's community, as reported by respondents residing in the study area in Park County, CO. N = 404 respondents for each listed incentive.

The potential role of insurance providers to incentivize wildfire risk mitigation activities among policy holders is often touted as an important complement to local wildfire risk mitigation efforts. Most respondents (70%) reported believing their home is adequately insured against loss from a wildfire. However, the percentage of respondents who reported insurance-related mitigation incentives is low. Thirty-four percent have received information from their insurance company on reducing wildfire risk. Only 30% of respondents were aware of paying a higher premium due to wildfire risk, while only 10% respondents reported that they had received a discount because of wildfire risk mitigation on their property. Nineteen percent reported that their insurance company required mitigation action as a condition of coverage while only 3% reported that they had enrolled in private firefighting services through their insurance company. See figure 42.

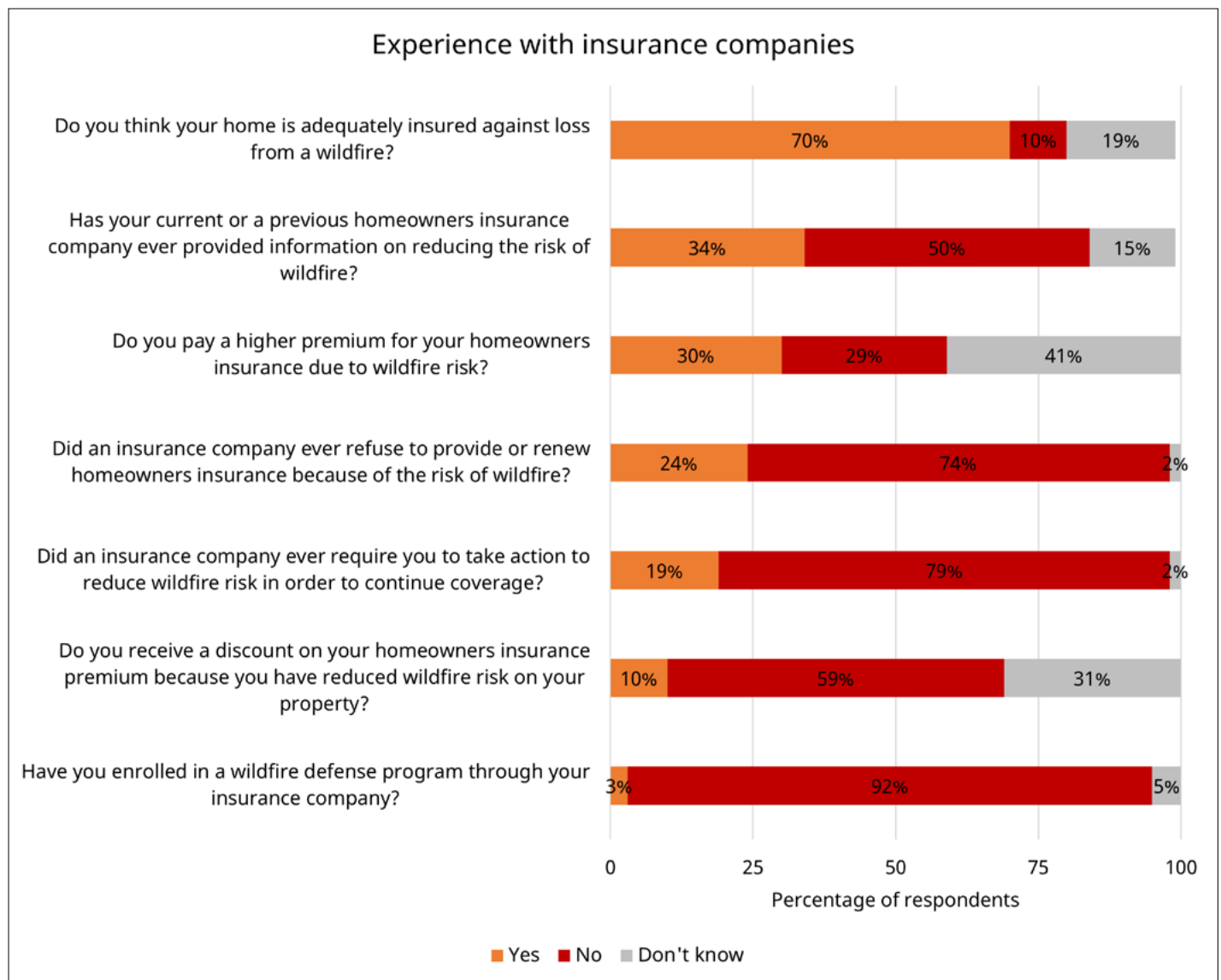


Figure 42—Respondents' knowledge of and experience with various insurance company actions, as reported by respondents residing in the study area in Park County, CO. N = 407–408 respondents to each statement.

CONCLUSION

The WiRē Rapid Wildfire Risk Assessments (rapid assessments), including assessment of various risk attributes, for properties within the study area in Park County, CO, indicated that 81% were at high, very high, or extreme wildfire risk. Residents within the study area responded to a household survey that asked them to estimate their overall risk as well as current conditions on their property (see “Methods” section for more details). Comparison of these two data sources reveals a mismatch between rapid assessment and household survey assessment of overall wildfire risk (fig. 2, Appendices C and E). The mismatch appears to be primarily driven by respondents’ overestimation of the presence or extent of their defensible space and other nonvegetative combustibles near the home. This mismatch is of concern because the owners of properties with the highest risk may not realize that this is the case, and thus may not participate in PCFPD, Fire Adapted Bailey, or neighborhood risk mitigation efforts. Closing this risk assessment “gap” can help align programmatic and respondent perspectives.

Most survey respondents reported high levels of risk mitigation activity and few barriers to action, suggesting that the lack of adequate defensible space is not due to respondents’ unwillingness to take risk reduction action. Instead, it may be due to misconceptions about adequate defensible space. In particular, 93% of survey respondents reported reducing vegetation on their property and mowing and raking around their home (fig. 33), and when asked to identify barriers to mitigation, most indicated that they did not face barriers associated with information, personal perspectives, or community resources. The most notable barriers were financial cost and physical ability to do the work for 44% and 40% of respondents, respectively (fig. 35). These results indicate that a portion of study respondents may benefit from expanded availability of financial and implementation support.

Survey results suggest the opportunity for expanding emergency planning communications. Eighty-five percent of respondents indicated that they have an evacuation plan; however, 73% have signed up for CodeRED emergency notification system. More notably, the vast majority of respondents indicated that they wanted more information on every evacuation dimension offered (fig. 32). Furthermore, the lack of secondary roads for egress for half the properties, narrow driveways, and lack of adequate address signage can shape the outcomes of an emergency event (figs. 4 and 5).

Respondents indicated that they receive wildfire information primarily from the local fire department (65%) and find it very or extremely useful (43%; fig. 17). Fewer respondents had received information from other sources, none of which were regarded as extremely or very useful, suggesting the opportunity for increased outreach. Respondents reported their preferred modes of communication to be email (76%), mailed newsletter (72%), and in-person interactions (58%) (fig. 16). PCFPD could expand outreach efforts at low cost by leveraging interest in email communications. Given the connection between PCFPD and survey respondents and respondents’ interest in mailed newsletters and with the support of FAB and Burland Ranchettes HOA, WiRē and PCFPD collaborated on an infographic-style outreach pamphlet that answers respondents’ key questions about wildfire risk mitigation and encourages further action (Appendix E). Information selected for the pamphlet was based on survey responses. The pamphlet was mailed to owners in the study area in spring 2022.

Appendix A: Correspondence Materials

Platte Canyon Fire Protection District Station #2
PO Box 222
Bailey, CO 80421



Dear Platte Canyon Fire Protection District Resident,

We have recently seen the devastating effects of wildfire in our community and those nearby. For example, we experienced the Shooting Range fire in 2018 and Shawnee Peak and 64 Alpha fires in 2019, all of which generated evacuations. It is our goal to be proactive in confronting wildfire risk before another disaster occurs. Therefore, Platte Canyon Fire Protection District (PCFPD) is working to help homeowners understand and reduce their risk from wildfire.

Wildfire Risk Assessment

As part of our effort to better understand local wildfire risk, PCFPD will be conducting parcel level wildfire risk assessments to determine how residents in the district can be better prepared in the event of a wildfire. Members of PCFPD will be in your community conducting "rapid" assessments in the coming months. If you are interested in a more in-depth and free wildfire risk analysis of your home and property, please email Andrea Black at plattecanyonfire80421@gmail.com.

Living with Wildfire in Park County in 2019 Survey

To create the most effective programs possible, we need to understand what residents know about wildfire, their experiences with wildfire, as well as the characteristics of their properties. In the coming weeks you will receive a survey in the mail to help us answer these questions. PCFPD is partnering with researchers at the University of Colorado to conduct the survey. Your participation in this survey is voluntary, but the information you provide will help emergency responders better prepare for future fires as well as improve our outreach and education efforts.

Thank you for participating.

Sincerely,

Joe Burgett
Fire Chief
Platte Canyon Fire Protection District



Always to the future

The Platte Canyon Fire Department is at the ready with integrity, honor, and respect to preserve and protect life and property when the call comes for an emergency.

Platte Canyon Fire Protection District Station #2
PO Box 222
Bailey, CO 80421



10/19/2020

Dear Platte Canyon Fire Protection District Resident,

The Platte Canyon Fire Protection District, Fire Adapted Bailey, and the Burland Ranchettes Homeowner's Association is partnering with researchers at the University of Colorado and the Wildfire Research Center to send the "Living with Wildfire in Park County in 2020" survey to residents of Burland Ranchettes and surrounding areas. To create the most effective programs possible, the Platte Canyon Fire Protection District needs to understand what you know about wildfire, your experiences with wildfire, as well as the characteristics of your property. We will share the final summary study results with local, state, and federal groups working to manage wildfire risk.

Participation in this study is completely voluntary and will take about 20 minutes. We realize your time is valuable and we appreciate you taking the time to fill out the survey.

When you return the survey, your name will be deleted from the mailing list and never connected to your answers in any way. After completing the survey, please fold it and put it in the postage paid return envelope. By returning the survey, you acknowledge your rights as a study participant (please see more details on the back of this letter). If you have any questions about this survey, please feel free to contact Colleen Donovan, Project Manager for the Wildfire Research Center, at 303-810-2922 or colleen@wildfireresearchcenter.org.

Thank you for participating.

Sincerely,

Joe Burgett
Fire Chief
Platte Canyon Fire Protection District

Hannah Brenkert-Smith
University of Colorado Boulder



Always to the future

The Platte Canyon Fire Department is at the ready with integrity, honor, and respect to preserve and protect life and property when the call comes for an emergency.

Your Rights as a Participant

We will make every effort to maintain the confidentiality of the study data. We will never publish information about individuals who participate in the study; we will present research results in summary form and keep all records and data secure.

There are no foreseeable risks associated with your participation in the survey.

You may withdraw from the study at any time and for any reason. If you have questions, concerns, or complaints about this research and you would like to talk to the research team, please contact Dr. Hannah Brenkert-Smith at hannahb@colorado.edu. This research has been reviewed and approved by an Institutional Review Board (IRB). You may talk to them at 303-735-3702 or irbadmin@colorado.edu if: your questions, concerns, or complaints are not being answered by the research team; you cannot reach the research team; you want to talk to someone besides the research team; you have questions about your rights as a research subject; or you want to get information or provide input about this research.

Always to the future

The Platte Canyon Fire Department is at the ready with integrity, honor, and respect to preserve and protect life and property when the call comes for an emergency.

WiReID
1.1.1

Living with Wildfire in Park County in 2020



Platte Canyon Fire Protection District Station #2
153 Delwood Drive, Bailey, CO 80421
<https://www.plattecanyonfire.com/>

Section 1: In this first section of the survey, we ask about your home in Park County. Please answer the following questions with respect to your **Park County home**.

When choosing a response, please fill in the circle completely. Correct:  Incorrect:    

1.1. Do you own or rent your Park County home? (*Fill in one circle*)

☐ Own

☐ Rent

1.2. What months do you occupy your Park County home? (*Fill in one circle*)

All 12 months	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	No months
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

1.3. In what year did you move to your Park County home? (*Fill in the blank*)

_____ Year moved to my Park County home

1.4. In what year was your Park County home originally built? (*Fill in the blank*)

_____ Year Park County home was built

1.5. How aware of wildfire risk were you when you bought or decided to rent your Park County home? (*Fill in one circle*)

☐ Very aware

☐ Somewhat aware

☐ Not aware

☐ Don't remember

Section 2: In this section, we ask about your experience with, and preparation for, wildfire at your Park County home.

2.1. What is the closest distance (as a crow flies) a wildfire has come to your Park County property? *(Fill in one circle)*

- ☐ There has been a wildfire on my property
- ☐ Less than 2 miles away but not on my property
- ☐ 2 to 10 miles away
- ☐ More than 10 miles away
- ☐ Not sure

2.2. Has your Park County home ever had smoke or fire damage from a wildfire?
(Fill in one circle per row)

	No	Yes
My Park County home has had smoke damage	☐	☐
My Park County home has had wildfire damage	☐	☐
My Park County home was destroyed by a wildfire	☐	☐

2.3. Do you currently have an evacuation plan in the event a wildfire threatens your Park County home? *(Fill in one circle per row)*

	No	Yes	Not applicable
For the people in my household	☐	☐	
For the pets in my household and on my property	☐	☐	☐
For livestock on my property	☐	☐	☐

2.4. Would the following information help you develop or improve your wildfire evacuation plan? *(Fill in one circle per row)*

	No	Yes
How I will be notified about evacuating	☐	☐
When to evacuate	☐	☐
Safe evacuation routes	☐	☐
What to bring and what to leave behind	☐	☐
Where to go during an evacuation (area of refuge)	☐	☐

2.5. Have you done any of the following? *(Fill in one circle per row)*

	No	Yes
Signed up for the CodeRED emergency notification service that alerts residents to evacuate or prepare to evacuate in the event of a wildfire?	☐	☐
Evacuated from your Park County home due to a wildfire or threat of a wildfire?	☐	☐
Applied for a Burn Permit in 2020 (ex. for outdoor fires, slash burning)?	☐	☐
Signed up with Park County to be notified about a Burn Ban?	☐	☐
Met with a wildfire professional at your home to evaluate and discuss your property's wildfire risk?	☐	☐

2.6. Please tell us about your experiences with your homeowners insurance for your Park County home. *(Fill in one circle per row)*

	No	Yes	Don't know
Has your current or a previous homeowners insurance company ever provided information on reducing the risk of wildfire?	☐	☐	☐
Did an insurance company ever refuse to provide or renew homeowners insurance because of the risk of wildfire?	☐	☐	☐
Do you pay a higher premium for your homeowners insurance due to wildfire risk?	☐	☐	☐
Do you receive a discount on your homeowners insurance premium because you have reduced wildfire risk on your property?	☐	☐	☐
Do you think your home is adequately insured against loss from a wildfire?	☐	☐	☐
Did an insurance company ever require you to take action to reduce wildfire risk in order to continue coverage?	☐	☐	☐
Have you enrolled in a wildfire defense program through your insurance company?	☐	☐	☐

Section 3: In this section, we ask about the characteristics of your Park County home and the area near your Park County home.

3.1. Does your Park County home have any of the following roofing materials?

(Fill in all that apply)

- ☐ Tile, metal, or asphalt shingles
- ☐ Wood (shake shingles)

3.2. Does your Park County home have any of the following exterior siding materials?

(Fill in all that apply)

- ☐ Stucco, cement, brick, stone, or other noncombustible siding
- ☐ Log or heavy timbers
- ☐ Wood or vinyl siding

3.3. Does your Park County home have a combustible balcony, deck, porch, or fence attached to the structure? *(Fill in one circle)*

- ☐ No
- ☐ Yes

3.4. Is the address number of your Park County home posted at the end of your driveway? *(Fill in one circle)*

- ☐ No
- ☐ Yes →

	No	Yes
Is the posted number visible from the road? <i>(Fill in one circle)</i>	☐	☐
Is the posted number reflective? <i>(Fill in one circle)</i>	☐	☐

3.5. What is the **closest** distance from your Park County home to combustible items other than vegetation such as lumber, firewood, a propane tank, hay bales, or other materials that could easily ignite? *(Fill in one circle)*

- ☐ More than 30 feet or no combustible items
- ☐ 10 - 30 feet
- ☐ Less than 10 feet

3.6. What is the **closest** distance from your Park County home to overgrown, dense, or unmaintained vegetation? *(Fill in one circle)*

- ☐ 150 feet or more
- ☐ 100 – 149 feet
- ☐ 30 – 99 feet
- ☐ 5 – 29 feet
- ☐ Less than 5 feet

3.7. Which of the following best describes the **majority** of vegetation on your Park County property and those properties immediately surrounding you? That area might be outside your property boundary. *(Fill in one circle)*

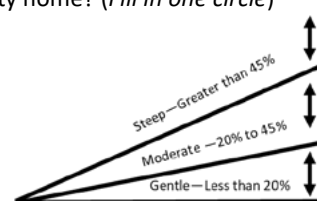
- ☐ Grasses
- ☐ Light brush and/or isolated trees (ex. grass with some lodgepole pine, scattered aspen, or other conifer)
- ☐ Dense brush and/or dense trees (ex. continuous lodgepole pine, dense aspen, or other conifer)

3.8. What is the **closest** distance from your Park County home to a neighboring home? *(Fill in one circle)*

- ☐ More than 100 feet
- ☐ 30 - 100 feet
- ☐ 10 – 29 feet
- ☐ Less than 10 feet

3.9. The “slope” or “grade” of a property refers to the steepness of the land. How would you describe the slope within 150 feet of your Park County home? *(Fill in one circle)*

- ☐ Steep – Greater than 45%
- ☐ Moderate – 20% to 45%
- ☐ Gentle – Less than 20%



3.10. What is the closest distance from your Park County home to a ridge, steep drainage, or narrow canyon? *(Fill in one circle)*

- ☐ More than 150 feet
- ☐ 50 – 150 feet
- ☐ Less than 50 feet

3.11. How long is your driveway? *(Fill in one circle)*

- ☐ 150 feet long or less
- ☐ Longer than 150 feet → Would a fire truck be able to turn around in your driveway? *(Fill in one circle)*
 - ☐ No
 - ☐ Yes

3.12. How wide is the driveway of your Park County residence at the narrowest point? *(Fill in one circle)*

- ☐ More than 26 feet (more than two cars wide)
- ☐ 20 – 26 feet (two cars wide)
- ☐ Less than 20 feet (one car wide)

3.13. If the road you use to access your Park County home was blocked due to a wildfire, is there another road you could use to get out of your community? *(Fill in one circle)*

- ☐ No
- ☐ Yes

3.14. Properties in your community are assessed for overall wildfire risk based on the items asked about in questions 3.1 – 3.13 above. What do you think is your Park County property's current overall wildfire risk rating? *(Fill in one circle)*

- ☐ Low risk
- ☐ Moderate risk
- ☐ High risk
- ☐ Very high risk
- ☐ Extreme risk

Section 4: In this section, we ask about wildfire risk reduction activities.

4.1. Have you ever talked about wildfire issues with a neighbor? *(Fill in one circle)*

- ☐ No
☐ Yes

4.2. Have you done any of the following wildfire-related activities? *(Fill in one circle per row)*

	No	Yes
Reduced vegetation on my Park County property (ex. cleared/pruned weeds, brush, and trees)	☐	☐
Regularly cleared my roof and gutters of leaves and pine needles	☐	☐
Regularly mowed and raked around my Park County home	☐	☐
Made my Park County home more fire resistant (ex. replaced roofing, siding, added hardscaping)	☐	☐
Helped neighbor(s) reduce vegetation on their properties	☐	☐
Helped reduce vegetation on community property (ex. HOA, subdivision)	☐	☐
Helped reduce vegetation on nearby public lands (ex. county, state, federal lands)	☐	☐
Participated in a community wildfire activity (ex. meeting, chipper day, etc.)	☐	☐

4.3. How much do you think each of the following factors contributes to the chances of a wildfire damaging your Park County property **in the next 12 months**?
(Fill in one circle per row)

	A lot	Somewhat	Not at all
Vegetation on my property	☐	☐	☐
Physical characteristics of my house or other buildings (ex. roofing or siding) on my property	☐	☐	☐
Vegetation on my neighbors' properties	☐	☐	☐
Vegetation on nearby public or large undeveloped land	☐	☐	☐

4.4. How many of your immediate neighbors do you think have taken action to reduce wildfire risk on their properties (ex. removing dense vegetation or switching to noncombustible siding) *(Fill in one circle)*

- ☐ All my neighbors have taken action
- ☐ Most of my neighbors have taken action
- ☐ Some of my neighbors have taken action
- ☐ None of my neighbors have taken action

4.5. How acceptable to you are the following approaches to reducing wildfire risk on nearby public lands? *(Fill in one circle per row)*

	Extremely acceptable	Very acceptable	Moderately acceptable	Slightly acceptable	Not at all acceptable
Removing trees and reducing other vegetation (thinning/fuel breaks)	☐	☐	☐	☐	☐
Burning piles of vegetation (slash piles)	☐	☐	☐	☐	☐
Conducting a prescribed fire ignited by fire managers	☐	☐	☐	☐	☐
Managing a naturally ignited fire (lightning)	☐	☐	☐	☐	☐
Land use regulations and building codes	☐	☐	☐	☐	☐
Removing vegetation along roadways for safe evacuation	☐	☐	☐	☐	☐

Section 5: In this section, we ask about your notions, expectations, and risk perceptions related to wildfire.

5.1. How much do you agree or disagree with the following statements about wildfire?
(Fill in one circle per row)

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
With proper technology, we can control most wildfires.	☐	☐	☐	☐	☐
We should put out wildfires that threaten human life.	☐	☐	☐	☐	☐
We should put out wildfires that threaten homes.	☐	☐	☐	☐	☐
During a wildfire, saving homes should be a priority over saving forests.	☐	☐	☐	☐	☐
Wildfires are a natural part of the balance of a healthy forest/ecosystem.	☐	☐	☐	☐	☐
I live here for the trees and will not remove any of them to reduce wildfire risk.	☐	☐	☐	☐	☐
Managing the wildfire danger is a government responsibility, not mine.	☐	☐	☐	☐	☐
Homeowners' actions to reduce wildfire are not effective.	☐	☐	☐	☐	☐
My property is at risk of wildfire.	☐	☐	☐	☐	☐
My effort to reduce wildfire risk on my property is ineffective because of the heavy vegetation on my neighbors' properties.	☐	☐	☐	☐	☐
Local firefighters have sufficient resources to keep the wildfire from spreading.	☐	☐	☐	☐	☐
Local firefighters have sufficient resources to protect threatened homes.	☐	☐	☐	☐	☐
Firefighters should put their lives at risk to protect my home.	☐	☐	☐	☐	☐
Wildfires threaten my community water supply.	☐	☐	☐	☐	☐
I plan to move out of the area in the next 12 months because of wildfires.	☐	☐	☐	☐	☐

5.2. If there is a wildfire on your Park County property, how likely do you think it is that the following would occur? *(Fill in one circle per row)*

	Extremely likely	Very likely	Moderately likely	Slightly likely	Not at all likely	Not applicable
I would put the fire out.	☐	☐	☐	☐	☐	☐
The fire department would save my home.	☐	☐	☐	☐	☐	☐
My home would have smoke damage.	☐	☐	☐	☐	☐	☐
My home would have some physical damage.	☐	☐	☐	☐	☐	☐
My home would be destroyed.	☐	☐	☐	☐	☐	☐
I would lose money due to the loss of business or income on my property.	☐	☐	☐	☐	☐	☐
My trees and landscape would burn.	☐	☐	☐	☐	☐	☐
My neighbors' homes would be damaged or destroyed.	☐	☐	☐	☐	☐	☐
Direct flame would ignite my home.	☐	☐	☐	☐	☐	☐
Embers would ignite my home.	☐	☐	☐	☐	☐	☐
Nearby homes would ignite my home.	☐	☐	☐	☐	☐	☐

5.3. What do you think is the chance that a wildfire will be on your Park County property **in the next 12 months**? *(Fill in one circle)*

For sure										No chance
100%	90%	80%	70%	60%	50%	40%	30%	20%	10%	0%
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

5.4. If there is a wildfire on your property **in the next 12 months**, what do you think is the chance that it will destroy or severely damage your Park County home? *(Fill in one circle)*

For sure										No chance
100%	90%	80%	70%	60%	50%	40%	30%	20%	10%	0%
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Section 6: In this section, we ask where you get information about wildfire, how useful the information is, how you receive information, and how you would like to receive information.

- 6.1. The following sources provide information about wildfire risk. If you have received information from one of these sources, how useful has it been? (*Fill in one circle per row*)

	Extremely useful	Very useful	Moderately useful	Slightly useful	Not at all useful	Fill in this circle if you have NOT received information from this source
Local fire department	☐	☐	☐	☐	☐	☐
Community group (ex. homeowners association)	☐	☐	☐	☐	☐	☐
Community wildfire ambassador	☐	☐	☐	☐	☐	☐
Fire Adapted Bailey	☐	☐	☐	☐	☐	☐
Firewise USA®	☐	☐	☐	☐	☐	☐
Ready, Set, Go! program	☐	☐	☐	☐	☐	☐
Colorado State Forest Service	☐	☐	☐	☐	☐	☐
USDA Forest Service	☐	☐	☐	☐	☐	☐
Bureau of Land Management	☐	☐	☐	☐	☐	☐
Media	☐	☐	☐	☐	☐	☐

6.2. How do you currently receive information about wildfire risk reduction and how would you prefer to receive information? Please answer **both** questions for each row.
(Fill in two circles per row, one for each question)

	I receive information about how to reduce wildfire risk on my property by...		I prefer to receive information about how to reduce wildfire risk by...	
	No	Yes	No	Yes
Email/e-newsletter	☐	☐	☐	☐
Mailed newsletter	☐	☐	☐	☐
Community meetings	☐	☐	☐	☐
In-person interactions	☐	☐	☐	☐
Social media (Facebook, Twitter, Nextdoor)	☐	☐	☐	☐
Internet (non-social media)	☐	☐	☐	☐
TV news	☐	☐	☐	☐
Newspaper	☐	☐	☐	☐
Radio	☐	☐	☐	☐

Section 7: In this section, we would like to know why you do or do not take action to reduce the risk of wildfire to your Park County property.

- 7.1. Do any of the following **prevent you** from taking action to reduce the wildfire risk on your Park County property (ex. cutting trees, changing roof/siding)?
(Fill in all circles that apply for each row)

Personal resources	Financial cost ☐	Time to do the work ☐	Physical ability to do the work ☐	None of these ☐
Lack of specific information about...	The factors contributing to my property's wildfire risk ☐	How to reduce wildfire risk on my property ☐	Where to dispose of vegetation/slash ☐	None of these ☐
Personal perspectives	I do not want to change the way my property looks ☐	I do not think taking action would reduce my property's wildfire risk ☐	It's a low priority to me ☐	None of these ☐
Community	Lack of options for disposing vegetation/slash ☐	Restrictions on the changes I can make to my property ☐	Social pressure from neighbors ☐	None of these ☐

- 7.2. Would any of the following **encourage you** to take action to reduce the wildfire risk on you Park County property? (Fill in all that apply for each row)

Resources	Cost-share or financial assistance ☐	Help doing the work ☐	Recommended contractors ☐	None of these ☐
Information	A report describing my property's wildfire risk factors ☐	Videos showing how to reduce risk on a property in my area ☐	One-on-one visit with wildfire risk experts on my property ☐	None of these ☐
Other	Feedback on the work I've done to reduce my property's risk ☐	Recognition for taking action ☐	Neighborhood group that organizes wildfire risk-reduction activities ☐	None of these ☐

Section 8: In this section, we ask about personal and household characteristics. Your name will never be connected to your answers in any way.

8.1. In general, do you view yourself as someone who is not at all willing to take risks or very willing to take risks? (*Fill in one circle*)

Very willing to take risks									Not at all willing to take risks	
10	9	8	7	6	5	4	3	2	1	0
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

8.2. What is your age? (*Fill in the blank*)

_____ years old

8.3. Are you? (*Fill in one circle*)

- ☐ Male
- ☐ Female

8.4. What is the highest grade or year of school you completed? (*Fill in one circle*)

- ☐ Less than high school
- ☐ High school graduate
- ☐ Some college or technical school
- ☐ Technical or trade school
- ☐ College graduate
- ☐ Some graduate work
- ☐ Advanced degree (M.D., M.A., M.S., Ph.D., etc.)

8.5. Which of the following best describes your current employment situation?

(Fill in one circle)

- ☐ Employed full time (including self-employed)
- ☐ Employed part time (including self-employed)
- ☐ Unemployed or do not work outside of the home
- ☐ Retired

8.6. Which of the following categories describes your annual household income?

(Fill in one circle)

- ☐ Less than \$15,000
- ☐ \$15,000 - \$24,999
- ☐ \$25,000 – \$34,999
- ☐ \$35,000 - \$49,999
- ☐ \$50,000 - \$74,999
- ☐ \$75,000 - \$99,999
- ☐ \$100,000 - \$149,999
- ☐ \$150,000 - \$199,999
- ☐ \$200,000 or more

Thank you for your help. Please use the space below to write any additional comments.

Dear Platte Canyon Fire Protection District Resident,

Thank you for your participation in the “Living with Wildfire in Park County in 2020” survey. We value your opinions. The information you provide is very important for the development of programs to reduce the risk of losses due to catastrophic wildfire. If you have not had a chance to complete and mail the survey, please do so today.

If you have recently returned the survey, thank you!

Sincerely,



Joe Burgett
Fire Chief
Platte Canyon Fire Protection District



Appendix B: Wildfire Research Center (WiRē) Rapid Assessment (rapid assessment) and Assessor Reference Guide

Starts on next page.

WiRē Rapid Assessment Form					
	Attribute	Attribute description	Response categories	Attribute weight	Category score
Access	Address posting	Is the house number posted at the end of the driveway and is the posted number reflective?	Yes, posted and green reflective	1%	0
			Yes, posted but not green reflective		5
			No, not posted		10
			Unknown - not observed		10
	Ingress/Egress	If the road to access the home was blocked due to a wildfire, is there another road to get out of the community?	Yes, two or more roads in/out	1%	0
			No, one road in/out		10
			Unknown - not observed		10
	Driveway clearance	How wide is the driveway of the residence at the narrowest point?	More than 26' (more than two cars wide)	1%	0
			Between 20' -26' (two cars wide)		5
			Less than 20' (one car wide)		10
			Unknown - not observed		10
	Driveway length	What best describes the driveway?	150 feet long or less	1%	0
			Longer than 150 feet with turnaround for Type 1 engine		5
			Longer than 150 feet without turnaround for Type 1 engine		10
Unknown - not observed			10		
Background Conditions	Distance to dangerous topography	What is the closest distance from the home to a ridge, steep drainage, or narrow canyon?	More than 150'	5%	0
			50' - 150'		25
			Less than 50'		50
			Unknown - not observed		50
	Slope	The "slope" or "grade" of a property refers to the steepness of the land. A large property may have steep, moderate, and gentle slopes. How would you describe the overall slope of the residence?	Gentle - Less than 20% (<11.3 degrees)	2%	0
			Moderate - Between 20% - 45% (11.3-24.2 degrees)		10
			Steep - Greater than 45% (>24.2 degrees)		20
			Unknown - not observed		20
	Adjacent fuels	Which of the following best describes the dominant vegetation on the property and those properties immediately surrounding it?	Light - Grasses	4%	10
			Medium - Light brush and/or isolated trees (e.g. grass with some lodgepole pine, scattered aspen, or other conifer)		20
			Dense - Dense brush and/or dense trees (e.g. continuous lodgepole pine, dense aspen or other conifer)		40
			Unknown - not observed		40
Defensible Space	Defensible Space	What is the closest distance from the home to overgrown, dense, or unmaintained vegetation?	≥ 150 feet	10%	0
			≥ 100 feet and < 150 feet		0
			≥ 30 feet and < 100 feet		50
			≥ 5 feet and < 30 feet		75
			< 5 feet		100
			Unknown - not observed		100
	Other combustibles	What is the closest distance from the home to combustible items other than vegetation such as lumber, firewood, a propane tank, hay bales, or other materials that could easily ignite?	None, more than 30 feet from the structure	8%	0
			Between 10 feet and 30 feet from the structure		40
Home Ignition Potential	Roofing materials	What is the most vulnerable roofing material?	Noncombustible or not applicable	30%	0
			Fire resistant - tar, rubberized		0
			Combination of fire resistant and combustible		300
			Combustible or no roof		300
			Unknown - not observed		300
	Building exterior	What is the most vulnerable exterior siding material?	Not applicable	7%	70
			Rock, concrete, metal		0
			Vinyl		70
			Log construction		35
			Wood or open sided		70
			Unknown - not observed		70
	Combustible attachments	Does the home have a combustible balcony, deck, porch, or fence attached to the structure?	No	10%	0
			Yes		100
			Unknown - not observed		100
	Proximity to adjacent homes (Calculated using GIS)	What is the closest distance to a neighboring home?	More than 100'	20%	0
			30' - 100'		50
10' - 29' away			100		
Less than 10'			200		
Total checks			100%	1000	

Wildfire Research (WiRē) Center Rapid Wildfire Risk Assessment - Assessor Reference Guide (ARG)

Field Name	Description	Response categories	Score	Category weight	Rationale & Additional Considerations	Related
n/a	PCFPD Inspector Name	Burgett, Edwards, Davis, Frew, Feradino, N/A	n/a	n/a	If you work for Platte Canyon Fire, please check next to your name. If you DO NOT work for Platte Canyon Fire, please check N/A. Knowing who the "inspector" is will assist with addressing data issues on the back end. The terms "inspector" and "assessor" are synonymous within this document.	
n/a	Firewise Leader Inspector Name	Van Doren (John or Debi), Davis, Ellis, Poague, Roberts, Ingwalson, N/A	n/a	n/a	If you are "Firewise Leader", please check next to your name. If NOT, please check N/A. Knowing who the "inspector" is will assist with addressing data issues on the back end. The terms "inspector" and "assessor" are synonymous within this document.	
n/a	Inspector Position	Module Leader, Firewise Leader, Assistant Module Leader, Squad Leader	n/a	n/a		
n/a	Inspection Date		n/a	n/a	Click on today's date and time will automatically update.	
n/a	House Number / Street Name / Designation / Direction / Street Address	This information will be auto filled - or you will need to enter as much of this information as possible.	n/a	n/a	For 95% of the data records, these fields should be automatically populated with information. To get these fields to be automatically populated, you need to access the map. To access the map: (1) Open the main file under My Surveys; (2) Click on "Inbox" at the bottom of the screen; (3) On the bottom left part of the screen, click on "Map"; (4) Click on the point (cross) that you intend to collect data on.	
n/a	Subdivision Name	If this field is blank, click the two-arrow-circle (refresh symbol) to the right to refresh. If you are manually entering in a new address, you will need to manually enter in the subdivision name.	n/a	n/a		
n/a	NIFC Structure Type	Residential	n/a	n/a	If selected, this will "trigger" the WiRē questions to be added in to the survey. If any other category is selected, the WiRē questions will be excluded from the survey.	
		Outbuilding			If selected ONLY NIFC questions will be asked (WiRē questions will be excluded)	
		Commercial			If selected ONLY NIFC questions will be asked (WiRē questions will be excluded)	
		Industrial			If selected ONLY NIFC questions will be asked (WiRē questions will be excluded)	
		Mixed Use			If selected ONLY NIFC questions will be asked (WiRē questions will be excluded)	
		Other			If selected ONLY NIFC questions will be asked (WiRē questions will be excluded)	
CommunityAccess	If the road to access the residence was blocked due to a wildfire, is there another road to get out of the community?	YES, two or more roads in/out	0	2%	Safe and effective ingress and egress is a critical component to community planning as well as safe and effective emergency response. Numerous types of emergency ingress/egress situations can exist such that there may be certain locations that will have more than one road out from the immediate house, but then over some distance, these multiple ingress/egress routes funnel back in to a single ingress/egress route. It will be up to the discretion of the assessor to determine if a property has more than one VIABLE route for getting in and out of the property and to a reasonably far away location, that will more likely than not be considered a safe location, during a future wildfire incident.	Does the family have a plan for evacuation, including a rendezvous (meetup) location A and location B in case cell phone communications are lost? Is the resident aware of the main routes for evacuating the home and have they driven them?
		NO, one road in/out	20			
		Unknown - not observed	19			
AddressPosted	Is the house number posted at the end of the driveway and is the posted number reflective?	Yes, posted and green reflective	0	2%	Use this category if the address sign fully meets or exceeds the local (e.g. county, municipality, FPD) standards (LINK TO STANDARDS) for an address sign and the address sign is fully visible.	A clearly visible address sign, that remains visible during dark conditions (e.g., night, smoky) is critical for safe and effective emergency response - particularly EMS. In many locations, a local jurisdiction (e.g., county, city, FPD) may have a standard for address signs. Typical standards for wildfire considerations include: The sign and post are non-combustible, the lettering is at least 3 inches tall, the sign incorporates a retroreflective contrasting color scheme, and the sign has been posted in a highly visible location at the juncture of the public road and the driveway. In some instances, multiple homes are accessed from a common driveway. In these instances, it may be necessary to post multiple address signs where the common driveway junctures with the public road and then additional individual address signs where each individual driveway breaks off. For the purposes of this rapid assessment, "posted" is meant to imply that the address sign is visible at the juncture of the public road and the driveway. This assessment is not considering sign material or any other potential local standards.
		Yes, posted but not green reflective	10		Use this category if the address sign DOES NOT meet the local standard for address signs.	
		No, not posted	20		Use this category if the address sign either (A) does not appear to exist or (B) is not visible regardless of the fact of whether or not the address sign meets the local standard or not.	
		Unknown - not observed	19		Try not to use this category if at all possible.	

Wildfire Research (WiRē) Center Rapid Wildfire Risk Assessment - Assessor Reference Guide (ARG)

Field Name	Description	Response categories	Score	Category weight	Rationale & Additional Considerations	Related
DrivewyClear	How wide is the driveway of the residence at the narrowest point?	More than 26' (more than two cars wide)	0	2%	The rationale behind this question is primarily related to emergency access, and in particular, access for wildland fire engines, structure fire apparatus and other emergency responders to access/evacuate the home site. Under ideal circumstances, each WUI driveway would provide enough horizontal width so that two vehicles could easily pass one another along the driveway. By width, we are talking about horizontal obstruction-free clearance that would permit vehicle access. We are not talking solely about road base. In other words, if a driveway road base is 12 feet wide and is bordered by flat ground, that could easily be driven on by any of the above listed vehicles, with no obstructions in either direction for at least 7 feet on each side (a total of 26 feet), then the assessor should mark the driveway as "More than 26 ft". However, if there are obstructions, such as vegetation, driveway gateways or anything else deemed as an obstruction that would make it difficult or impossible for two vehicles to pass each other along the driveway, at any point, than the assessor should rate this domain as "Between 20'-26 ft" or "Less than 20 ft" depending on an observational estimate of the width of the constriction. The take home for homeowners is that they may need to remove obstructions, such as vegetation or gateways, so that emergency vehicles can safely utilize their driveway during a future incident.	Vertical obstructions are another consideration. Overhanging tree branches or ranch style gateways can create vertical obstructions. A typical vertical clearance standard is 13.5 feet.
		Between 20' -26' (two cars wide)	10			
		Less than 20' (one car wide)	20			
		Unknown - not observed	19			
DrivewyLength	What best describes the driveway?	150 feet long or less	0	2%	Similar to DrivewyClear, length is related to the safety of emergency responders that are accessing the home. The longer the driveway, the more risk that each responder is exposed to. Length may be estimated by driving down the driveway (which will be very helpful to answer several other additional questions) or by utilizing GIS technologies. Similarly, the "turnaround" aspect of the question relates to whether or not an adequate and appropriate turnaround exists along the driveway. By "adequate and appropriate" - we mean that a turnaround exists that meets the local FPD/county/relevant jurisdictional standards for emergency vehicle turnarounds.	If a local FPD/county/local jurisdictional standard for emergency vehicle turnarounds does not exist, your jurisdiction may elect to develop a standard - whether or not there is a strict requirement for homeowners to meet the standard. One such standard, from Boulder County, has a nice companion flyer which provides visuals which can be helpful when trying to relay this information to the public. Boulder County Turnaround Standards Link: https://assets.bouldercounty.org/wp-content/uploads/2017/03/w04-emergency-vehicles-access.pdf
		Longer than 150 feet with turnaround for Type 1 engine	10			
		Longer than 150 feet without turnaround for Type 1 engine	20			
		Unknown - not observed	19			
Slope	The “slope” or "grade" of a property refers to the steepness of the land. A large property may have steep, moderate, and gentle slopes. How would you describe the overall slope of the residence?	Gentle - Less than 20% (<11.3 degrees)	0	5%	While certain topographic features can significantly influence wildfire behavior characteristics, the overall slope of the land where the home is situated has a proportionally significant influence. While the arrangement of fuels (type, moisture levels, vertical continuity, horizontal continuity, etc.), aspect and incident specific weather conditions will also become significant factors, we know that as slope increases, the potential for elevated fire behavior characteristics increases correspondingly. To this end, the intent of this domain is to raise/increase awareness about this basic wildfire behavior fact so that those folks that have homes on steep slopes are extra diligent with regards to mitigation and preparedness. But how do we measure slope? Slope is a measurement of the vertical rise between at least two points. To maintain consistency, we recommend that each assessor utilize the same methodology for estimating slope. The recommended methodology is as follows: Draw an imaginary transect that is 300 feet in length with the center of the transect being the center of the home that is being assessed. There will then be 150 feet of distance along the transect, in either direction, from the center of the home. Situate the transect so that it is perpendicular to the contours of the slope. Please note that the transect must be a straight line. If numerous undulations/topographic complexities exist, do your best to make an estimate of the overall lay of the land within approximately 150 feet of the home. Estimate the total elevation change (in feet) along the transect by subtracting the lowest elevation at one end of the transect to the highest elevational point at the opposite end of the transect. Finally, divide the elevation change number by 300 and multiply that result by 100. Example: If you estimate a change of 38 feet in elevation between to the two ends of the imaginary transect then your percent slope is equal to (38/300) X 100 = 12.66%. If you estimate 120 feet of elevation change than the percent slope is equal to (120/300) x 100 = 40%. A clinometer is a simple tool to estimate slope. This type of measurement can also be done using GIS. PLEASE NOTE THE DIFFERENCE BETWEEN PERCENT SLOPE AND DEGREES.	Slope can be measured in truly infinite number of ways. If your group elects to go with a different measurement methodology - that is okay so long as all of the assessors are using the same methodology. Certain GIS tools have made the measurement of slope possible from your computer. That said, keep in mind that for this assessment, we are putting slope in to three categories which are fairly course descriptions of slope options.
		Moderate - Between 20% - 45% (11.3-24.2 degrees)	25			
		Steep - Greater than 45% (>24.2 degrees)	50			
		Unknown - not observed	49			
DistanceToSlope	What is the closest distance from the residence to a ridge, steep drainage or narrow canyon?	More than 150 feet	0	10%	Topography is one of the three main factors that influence wildland fire behavior. It is well documented and understood that certain topographic features, such as gullies and drainages, are known to dramatically increase the flame front intensity (and similar metrics of wildfire behavior) when the fire is interacting with these bio-physical environments. As such, homes that are located in the direct 'line of fire' with these features are at significantly higher risk than those homes that are situated back and away from such features. The goal of this domain is to assess the relative proximity of the home to any observed feature.	This category has obvious overlap with the Slope category. However, we have this as a separate category because of the potential for certain topographic features to <i>dramatically</i> increase wildfire risk.
		Between 50 and 150 feet	50			
		Less than 50 feet	100			
		UNKNOWN - Not observed	99			
AdjacentFuels	Which of the following best describes the dominant vegetation on the property and those properties immediately surrounding it?	Light - Grasses	35	10%	Fuels are one of the three categories on the wildfire behavior triangle. This domain looks at a proxy of "fuel type" <i>as well as a proxy for fuel load measurement</i> . It does not necessarily analyze factors related to fuel conditions that are critical to understanding future potential wildfire behavior including: true fuel type, fuel arrangement, fuel continuity (vertical and horizontal), fuel moistures, fuel loads, combustion characteristics, etc. As such, this domain is subject to a significant amount of assessor interpretation and subjectivity. That said, we recommend the following methodology: Look at the general area where the home is situated. Within approximately 500 feet of the home, in all directions , guestimate what is the dominant and primary fuel description. By "dominant and primary" we mean which of the fuels within this area will more likely than not play the greatest role in a future wildfire incident should those fuels become involved in the fire and does that fuel type cover at least 30% of the defined area.	
		Medium - Light brush and/or isolated trees (e.g. grass with some lodgepole pine, scattered aspen, or other conifer)	65			
		Dense - Dense brush and/or dense trees (e.g. continuous lodgepole pine, dense aspen or other conifer)	100			
		Unknown - not observed	99			

Field Name	Description	Response categories	Score	Category weight	Rationale & Additional Considerations	Related
DefendSpace	What is the closest distance from the residence to overgrown, dense, or unmaintained vegetation?	≥ 150 feet	0	15%	Primary experimental research from the International Crown Fire Modeling Experiment (1998) demonstrated that mockup home structures (stick built, T-1-111 siding, composite shingles) were able to survive (with light scorch) from the <u>radiant</u> heat of an active crown fire (Jack Pine) at a distance as little as 10 meters (32.8 feet), without direct flame contact, but did ignite when the structure was exposed to direct flames. At a distance of 30 meters (98.42 ft), the same structures survived without any scorch. Along with modeling, case studies and other research, this famous experiment laid the foundation for the classic zones of defensible space: Zone 1 (0-30 feet) / Zone 2 (30-100 feet) / Zone 3 (100 feet or more with slope factor). Additional understanding and research has lead to a fuller understanding of ignition vulnerabilities for the home (primarily related to ember ignitions). A new 5 foot zone has emerged from the work being conducted by IBHS and has begun to gain more widespread adoption. For this domain, each assessor will need to determine, using best professional judgement, the amount of distance (in feet) between the home and any "overgrown, dense or unmaintained vegetation". To this extent, it is important to consider the vegetation in question and whether or not that <i>particular</i> vegetation would more likely than not contribute to an active wildland fire and thusly expose the home in question to direct flames and/or radiant heat and/or convective heat that could presumably result in ignition in most imagined scenarios. In other words, if you were recommending treatment/mitigation for defensible space, would you recommend that the vegetation in question be managed within 5 feet of the home? Within 30 feet of the home? Within 100 feet of the home? Within 150 feet of the home for homes exposed to steep slopes or other high risk topographic features?	Truly assessing defensible space requires a more thorough evaluation of the home and its immediate surroundings and typically necessitates an in-person walk through with the homeowner. Determining an appropriate prescription for vegetation management will depend upon a number of factors. The intent of question is to raise and/or increase awareness related to the fact that additional vegetation management is necessary to adequately reduce the potential for radiant or convective heat exposure to the home from burning vegetation during a wildland fire. The new 5 foot zone should be devoid of all combustible materials (including bark mulch or combustible vegetation).
		≥ 100 feet and < 150 feet	0			
		≥ 30 feet and < 100 feet	50			
		≥ 5 feet and < 30 feet	100			
		< 5 feet	150			
		UNKNOWN - Not observed	149			
RoofingMat	What is the most vulnerable roofing material?	Noncombustible or not applicable	0	30%	By "non-combustible" we are assuming that is going to be a typical Class A material like tile, metal or asphalt shingle. Tar or rubberized roofs are most commonly found with adobe SW style homes with a flat roof. Certainly there are some additional types of roofing materials that are used besides the ones listed - in which case the assessor should make a determination using best available information related to the roofing material and its potential ignitability. In other instances, multiple types of roofing materials are used, particular in homes with complex roof lines, dormers and extensions. In these cases, we recommend rating the entire roof as whatever is the most vulnerable section.	It is important to note that roofing material is only one factor in the roofing equation as it relates to wildland fire. During a more in-depth analysis, it will be important to consider the entire roofing assembly with regards to the potential for future ignition during a wildland fire. Certain asphalt shingle and even metal roofs remain vulnerable to ignition due to the assembly. Important related factors to the roof are eaves and gutters. Open eaves represent a higher risk than soffited eaves. All eaves should at minimum incorporate 1/8" metal screening. Additionally, gutters play a major role.
		Fire resistant - tar, rubberized	0			
		Combination of fire resistant and combustible	300			
		Combustible or no roof	300			
		UNKNOWN - not observed	299			
SidingMat	What is the most vulnerable siding material?	Not applicable	119	12%	Only use this category if you cannot visibly observe the siding and cannot get that information from another source.	This is probably the most challenging domain to assess during the Rapid Assessment. There are literally dozens of commonly used materials that exist on the market for the exterior cladding of a home. Many of these materials claim to be resistant to fire, resistant to ignition or noncombustible. In addition, it is very common for a home to incorporate multiple different types of exterior cladding/siding. Additionally, some of the newer available products that fall in the general category of "fiber cement siding" have been designed to mimic wood - and are increasingly getting better at 'looking the part'. These products can make it difficult to discern the difference. Additionally, it is known that not all stucco applications meet fire resistant standards. All of this said, the intent of this domain is to increase awareness related to the potential for home ignition via risk exposure vulnerabilities on the home, and the role of the assessor is to determine if any such ignition vulnerabilities likely exist. Using all available information, including visual observation, photographs, county assessor data, it is up to the assessor to make a determination if any exterior cladding/siding represents a potential risk for ignition on the home and to utilize the response categories to denote these risk. After the roof, the exterior siding represents the second largest (in terms of square feet) surface that is exposed to potential ignition risks. However, mitigating the risk, even to wood siding, can be achieved through defensible space combined with a variety of other "ember mitigation" techniques.
		Rock, concrete, metal	0		This category includes brick, stone, block, concrete synthetic stone, metal, stucco (3 stage or EIFS), fiber cement (e.g. Hardie Board) or other materials that are considered Class A or B.	
		Vinyl	120		Vinyl siding only	
		Log construction	30		In order to qualify as log, it needs to be considered "heavy log construction" with a minimum log diameter of 6 inches with all bark striped and incorporating a chinking material to fill the gaps between the logs. Faux logs, D-Link, and square logs DO NOT qualify for this category and should be counted as "Wood or open sided".	
		Wood or open sided	120			
		UNKNOWN - not observed	119			

Wildfire Research (WiRē) Center Rapid Wildfire Risk Assessment - Assessor Reference Guide (ARG)

Field Name	Description	Response categories	Score	Category weight	Rationale & Additional Considerations	Related
DeckFence	Does the residence have a combustible balcony, deck, porch, or fence attached to the structure?	No	0	5%	Decks and fences are well know to be considerable home ignition vulnerabilities. If no deck or fence is attached to the structure, then the answer is no. However, if a deck or fence is attached, the assessor will need to determine to what extent the attached deck or fence poses an ignition risk based upon an observation of the combustibility of such attachment. While composite decking boards (e.g. Trex) are considered by many to be a better alternative than standard decking boards, for the purposes of this risk assessment, we are considering composite decking to fall in to the category of "combustible".	Attached decks and fences is a complicated subject. There are many, many types of decks construction styles and materials on the market. Recent research has indicated some novel approaches to mitigation for decks, including covering the tops of joists with a metal wrap.
		Yes	50			
		Unknown - not observed	49			
OtherCombust	What is the closest distance to combustible items other than vegetation such as lumber, firewood, a propane tank, hay bales, or other materials that could easily ignite?	None, more than 30 feet from the structure	0	5%	Are there any other combustible materials, near the home (within Zone 1), that a structure protection specialist group would likely want to remove/clean up in the event of an impending wildfire? Common items include lumber, construction materials, firewood, propane tanks, hay bales, leaves, wicker furniture, decorative ornaments, etc. If so, how close to the home is this item or these items?	Other combustibles are extremely common. It is important for homeowners to be aware that these materials represent a risk, particularly during the fire season, and particularly related to ember ignition exposure.
		Between 10 feet and 30 feet from the structure	20			
		Less than 10 feet from the structure	50			
		UNKNOWN - Not observed	49			
	Enter additional comments necessary to understand this assessment.				This is a great place to add any notes that will help back end data compilation and analysis efforts. Type away and help everyone understand what other things we might all need to know!	
The rest of the questions are related to the National Interagency Fire Center survey. Please refer to NIFC provided materials for further instructions related to that portion of the risk assessment.						

Questions? Need support? Please contact a Wildfire Research team member depending upon the nature of your question or support need:		
Nature of support need	Wire Team Member	Phone and Email
Technical support with ArcOnline or Survey 123	Pam Froemke	970-498-2567 / pam.froemke@usda.gov
Unable to load surveys or access the map feature	Pam Froemke	970-498-2567 / pam.froemke@usda.gov
Unable to access data points for a particular community or home	Pam Froemke	970-498-2567 / pam.froemke@usda.gov
Unable to access ArcOnline	Pam Froemke	970-498-2567 / pam.froemke@usda.gov
The community I want assess is not available	Colleen Donovan	303-810-2922 / colleen@wildfireresearchcenter.org
Support related to how to answer specific WiRē questions	Jamie Gomez	970-615-7300 / jamie.gomez@cowildfire.org
Support related to assessing wildfire risk associated with WiRē questions	Jamie Gomez	970-615-7300 / jamie.gomez@cowildfire.org
Support related to answering NIFC questions	PCFPD	PCFPD

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Additional Instructions and Tips	
Strucutre Location Pins	Use +/- to zoom in and out
Strucutre Location Pins	If pin is accidentally moved, hit back button OR use laction services to locate yourself then move pin back on to house.
Strucutre Location Pins	Pin locations can be adjusted - but be careful!
Unsure of how to respond to a question?	The default answer should be the most vulneralbe/high risk answer. Be conservative with answering questions.

Appendix C: Comparison of Rapid Assessment and Household Survey

Starts on next page.



1 Platte Canyon Fire Protection District Rapid Assessment Compared to Household Survey Responses

Platte Canyon Fire Protection District conducted parcel-level rapid wildfire risk assessments (RA) and administered a household survey. The following tables present a summary of the professional's responses to the 13 risk attributes in the RA and the homeowner's self-assessment for all the risk attributes. Additionally, the tables present the results of the overall wildfire risk rating, which is the sum of the attribute scores; and compared it to the homeowner's self-reported overall risk.

Professional RA results are presented in two forms: all RA data in the study area, and a subset of that data, including only the RA data for parcels that returned a household survey. The tables below are organized by risk categories of access, home ignition potential, defensible space, and background conditions.

This project was supported with funding from USDA Forest Service, Washington Office Fire and Aviation Management and a University of Colorado Boulder Outreach Award.

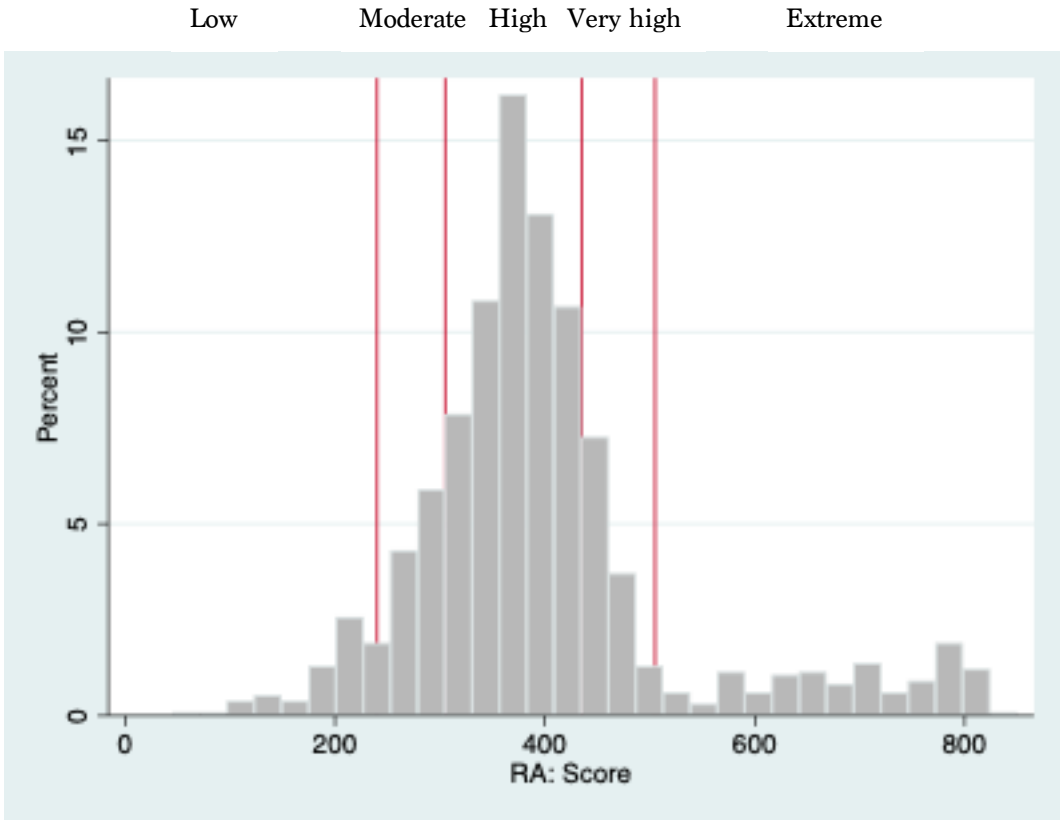
1.1 Overall risk rating

Overall risk rating:

RA: Based on the sum of the 13 attribute scores. Homeowner's self-assessment response to: What do you think is your Park County property's current overall wildfire risk rating?

Response categories	All RAs in study area (N=1,322)	Subset of RAs for parcels that returned a household survey (N=415)	Self-assessment from household surveys (N=415)
Low	6%	8%	11%
Moderate	12%	11%	59%
High	60%	61%	22%
Very high	10%	7%	6%
Extreme	12%	13%	2%

The histogram below shows the distribution of the RA risk ratings across the study area.



1.2 Access

Risk attribute: Address Posting			
Is the house number posted at the end of the driveway and is the posted number reflective?			
Response categories	All RAs in study area (N=1,322)	Subset of RAs for parcels that returned a household survey (N=405)	Self-assessment from household surveys (N=405)
Posted and reflective	23%	33%	60%
Posted, NOT reflective	66%	61%	34%
Not posted (not visible)	11%	6%	6%

Risk attribute: Ingress/Egress

If the road to access the residence was blocked due to a wildfire, is there another road to get out of the community?

Response categories	All RAs in study area (N=1,322)	Subset of RAs for parcels that returned a household survey (N=413)	Self-assessment from household surveys (N=413)
Two or more roads in/out	54%	51%	55%
One road in/out	46%	49%	45%

Risk attribute: Driveway clearance

How wide is the driveway of the residence at the narrowest point?

Response categories	All RAs in study area (N=1,322)	Subset of RAs for parcels that returned a household survey (N=415)	Self-assessment from household surveys (N=415)
More than 26' (<i>more than two cars wide</i>)	2%	2%	7%
Between 20' -26' (<i>two cars wide</i>)	8%	8%	24%
Less than 20' (<i>one car wide</i>)	90%	90%	69%

Risk attribute: Driveway length

What best describes the driveway?

Response categories	All RAs in study area (N=1,322)	Subset of RAs for parcels that returned a household survey (N=408)	Self-assessment from household surveys (N=408)
150 feet long or less	68%	70%	62%
Longer than 150 feet with turnaround for Type 1 engine	7%	6%	23%
Longer than 150 feet without turnaround for Type 1 engine	25%	24%	15%

1.3 Background conditions

Risk attribute: Distance to dangerous topography What is the closest distance from the home to a ridge, steep drainage, or narrow canyon?			
Response categories	All RAs in study area (N=1,322)	Subset of RAs for parcels that returned a household survey (N=411)	Self-assessment from household surveys (N=411)
More than 150'	54%	56%	69%
50' - 150'	22%	21%	19%
Less than 50'	25%	23%	12%

Risk attribute: Slope The "slope" or "grade" of a property refers to the steepness of the land. A large property may have steep, moderate, and gentle slopes. How would you describe the overall slope of the residence?			
Response categories	All RAs in study area (N=1,322)	Subset of RAs for parcels that returned a household survey (N=412)	Self-assessment from household surveys (N=412)
Gentle (less than 20%)	32%	35%	35%
Moderate (between 20% and 45%)	46%	45%	48%
Steep (greater than 45%)	22%	20%	17%

Risk attribute: Adjacent Fuels Which of the following best describes the dominant vegetation on the property and those properties immediately surrounding it?			
Response categories	All RAs in study area (N=1,322)	Subset of RAs for parcels that returned a household survey (N=414)	Self-assessment from household surveys (N=414)
Light - Grasses	3%	4%	8%
Moderate - Light brush and/or isolated trees	66%	70%	74%
Dense - Dense brush and/or dense trees	31%	26%	18%

1.4 Defensible space

Risk attribute: Defensible Space			
What is the closest distance from the residence to overgrown, dense, or unmaintained vegetation?			
Response categories	All RAs in study area (N=1,322)	Subset of RAs for parcels that returned a household survey (N=412)	Self-assessment from household surveys (N=412)
More than 100'	17%	17%	48%
Between 30' - 100'	30%	28%	34%
Between 5' - 29'	36%	38%	15%
Less than 5'	18%	16%	2%

Risk attribute: Other combustibles			
What is the closest distance to combustible items other than vegetation such as lumber, firewood, a propane tank, hay bales, or other materials that could easily ignite?			
Response categories	All RAs in study area (N=1,322)	Subset of RAs for parcels that returned a household survey (N=415)	Self-assessment from household surveys (N=415)
None, greater than 30' from structure	18%	18%	47%
Between 10'-30' from structure	24%	25%	41%
Less than 10' from structure	58%	57%	12%

1.5 Home ignition potential

Risk attribute: Roof			
What is the most vulnerable roofing material?			
Response categories	All RAs in study area (N=1,322)	Subset of RAs for parcels that returned a household survey (N=411)	Self-assessment from household surveys (N=411)
Non-combustible (tile, metal, or asphalt shingles)	88%	87%	98%
Combustible (wood shake shingles)	12%	13%	2%

Risk attribute: Siding What is the most vulnerable siding material?			
Response categories	All RAs in study area (N=1,322)	Subset of RAs for parcels that returned a household survey (N=413)	Self-assessment from household surveys (N=413)
Stucco, cement, brick, stone, or other noncombustible siding	2%	2%	7%
Log or heavy timbers	2%	3%	5%
Wood or vinyl siding	96%	94%	88%

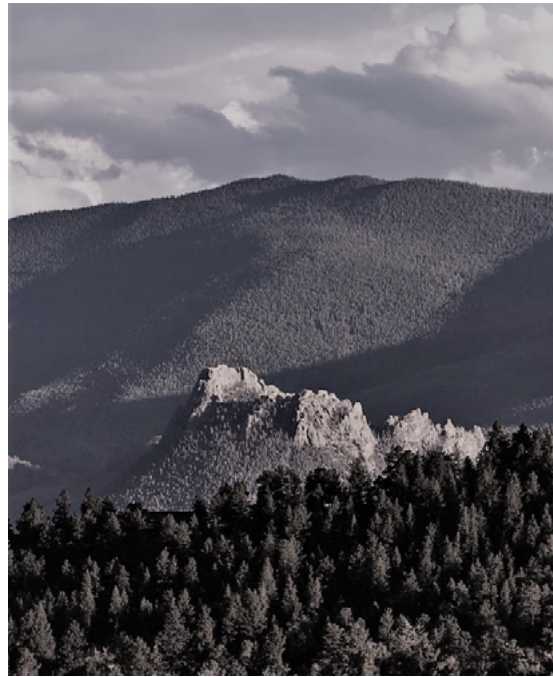
Risk attribute: Combustible Attachments (Decking and Fencing) Does the residence have a combustible balcony, deck, porch, or fence attached to the structure?			
Response categories	All RAs in study area (N=1,322)	Subset of RAs for parcels that returned a household survey (N=412)	Self-assessment from household surveys (N=412)
No combustible attachments	4%	4%	5%
Combustible attachments present	96%	96%	95%

Risk attribute: Proximity to adjacent homes What is the closest distance to a neighboring home? (Note: Distance to a neighboring home was calculated in GIS).			
Response categories	All RAs in study area (N=1,322)	Subset of RAs for parcels that returned a household survey (N=413)	Self-assessment from household surveys (N=413)
More than 100'	78%	83%	76%
30' – 100'	21%	17%	23%
10' – 29'	0%	0%	1%
Less than 10'	0%	0%	0%

Appendix D: Park County Household Survey Codebook

Starts on next page.

Living with Wildfire in Park County in 2020



Platte Canyon Fire Protection District Station #2
153 Delwood Drive, Bailey, CO 80421
<https://www.plattecanyonfire.com/>

Entered survey responses: 417 = number of observations (n)

Blue numbers are percent responses (might not total to 100% due to rounding)

Red ALL CAPS are variable names

Please note: We encourage use of this survey instrument for applied, research, and/or publication purposes but request to be notified before any such use at: info@wildfireresearchcenter.org

**Funding for household survey administration is from a University of Colorado Boulder Outreach Award*

**All data received and processed as of January 31, 2022*

**Document prepared May 17, 2022*

Section 1: In this first section of the survey, we ask about your home in Park County. Please answer the following questions with respect to your **Park County home**.

When choosing a response, please fill in the circle completely. Correct: ☒ Incorrect: ☐ ☐ ☐ ☐

OWNRENT (n=412)

1.1. Do you own or rent your Park County home? (*Fill in one circle*)

100% Own

0% Rent

MONTHS (n=412)

1.2. What months do you occupy your Park County home? (*Fill in one circle*)

All 12 months	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	No months
94%	1%	1%	0%	1%	2%	3%	3%	2%	2%	2%	1%	1%	2%

FULLTIME (n=407)

1.3. In what year did you move to your Park County home? (*Fill in the blank*)

AVERAGE = 2004

YRBUILD (n=400)

1.4. In what year was your Park County home originally built? (*Fill in the blank*)

AVERAGE = 1985

RISKAWAR (n=413)

1.5. How aware of wildfire risk were you when you bought or decided to rent your Park County home? (*Fill in one circle*)

52% Very aware

37% Somewhat aware

10% Not aware

2% Don't remember

Section 2: In this section, we ask about your experience with, and preparation for, wildfire at your Park County home.

FIRE (n=413)

2.1. What is the closest distance (as a crow flies) a wildfire has come to your Park County property? *(Fill in one circle)*

- 3% There has been a wildfire on my property
- 27% Less than 2 miles away but not on my property
- 43% 2 to 10 miles away
- 17% More than 10 miles away
- 9% Not sure

2.2. Has your Park County home ever had smoke or fire damage from a wildfire?
(Fill in one circle per row)

		No	Yes
SMOKEDAM (n=413)	My Park County home has had smoke damage	97%	3%
FIREMADAM (n=404)	My Park County home has had wildfire damage	100%	1%
DESTROY (n=404)	My Park County home was destroyed by a wildfire	100%	0%

2.3. Do you currently have an evacuation plan in the event a wildfire threatens your Park County home? *(Fill in one circle per row)*

		No	Yes	Not applicable
EVACPPPL (n=413)	For the people in my household	15%	85%	
EVACPETS (n=410)	For the pets in my household and on my property	14%	63%	24%
EVACLIVSTOC (n=409)	For livestock on my property	5%	4%	91%

2.4. Would the following information help you develop or improve your wildfire evacuation plan? *(Fill in one circle per row)*

		No	Yes
EVACINFO1 (n=414)	How I will be notified about evacuating	6%	94%
EVACINFO9 (n=411)	When to evacuate	5%	95%
EVACINFO3 (n=413)	Safe evacuation routes	8%	92%
EVACINFO5 (n=410)	What to bring and what to leave behind	30%	70%
EVACINFO4 (n=409)	Where to go during an evacuation (area of refuge)	14%	87%

2.5. Have you done any of the following? *(Fill in one circle per row)*

		No	Yes
EVACACT2 (n=413)	Signed up for the CodeRED emergency notification service that alerts residents to evacuate or prepare to evacuate in the event of a wildfire?	27%	73%
EVACUATED (n=405)	Evacuated from your Park County home due to a wildfire or threat of a wildfire?	71%	29%
BURNPERMIT2020 (n=414)	Applied for a Burn Permit in 2020 (ex. for outdoor fires, slash burning)?	78%	22%
BURNBAN (n=413)	Signed up with Park County to be notified about a Burn Ban?	53%	47%
ACTIVITIES9 (n=414)	Met with a wildfire professional at your home to evaluate and discuss your property's wildfire risk?	74%	26%

2.6. Please tell us about your experiences with your homeowners insurance for your Park County home. *(Fill in one circle per row)*

		No	Yes	Don't know
INSURE2 (n=407)	Has your current or a previous homeowners insurance company ever provided information on reducing the risk of wildfire?	50%	34%	15%
INSURE3 (n=410)	Did an insurance company ever refuse to provide or renew homeowners insurance because of the risk of wildfire?	74%	24%	2%
INSURE4 (n=407)	Do you pay a higher premium for your homeowners insurance due to wildfire risk?	29%	30%	41%
INSURE10 (n=407)	Do you receive a discount on your homeowners insurance premium because you have reduced wildfire risk on your property?	59%	10%	31%
INSURE12 (n=408)	Do you think your home is adequately insured against loss from a wildfire?	10%	70%	19%
INSURE13 (n=408)	Did an insurance company ever require you to take action to reduce wildfire risk in order to continue coverage?	79%	19%	2%
INSURE14_wr014 (n=407)	Have you enrolled in a wildfire defense program through your insurance company?	92%	3%	5%

Section 3: In this section, we ask about the characteristics of your Park County home and the area near your Park County home.

3.1. Does your Park County home have any of the following roofing materials?

(Fill in all that apply)

		No	Yes
ROOFTYPE1 (n=411)	Tile, metal, or asphalt shingles	1%	99%
ROOFTYPE2 (n=411)	Wood (shake shingles)	98%	2%

3.2. Does your Park County home have any of the following exterior siding materials?

(Fill in all that apply)

		No	Yes
SIDETYPE1 (n=413)	Stucco, cement, brick, stone, or other noncombustible siding	86%	14%
SIDETYPE2 (n=413)	Log or heavy timbers	92%	8%
SIDETYPE3 (n=413)	Wood or vinyl siding	11%	89%

ATTACHCOMB (n=412)

3.3. Does your Park County home have a combustible balcony, deck, porch, or fence attached to the structure? (Fill in one circle)

5% No
95% Yes

HOMENUM (n=399)

3.4. Is the address number of your Park County home posted at the end of your driveway? (Fill in one circle)

7% No
93% Yes



HOMENUMVIS (n=383)	No	Yes
Is the posted number visible from the road? (Fill in one circle)	2%	98%
Is the posted number reflective? (Fill in one circle) REFLECT (n=371)	35%	65%

COMBUST (n=415)

3.5. What is the **closest** distance from your Park County home to combustible items other than vegetation such as lumber, firewood, a propane tank, hay bales, or other materials that could easily ignite? (Fill in one circle)

47% More than 30 feet or no combustible items
41% 10 - 30 feet
12% Less than 10 feet

CLOSEVEG_WR014 (n=412)

3.6. What is the **closest** distance from your Park County home to overgrown, dense, or unmaintained vegetation? *(Fill in one circle)*

- 31% 150 feet or more
- 17% 100 – 149 feet
- 34% 30 – 99 feet
- 15% 5 – 29 feet
- 2% Less than 5 feet

DOMVEG (n=414)

3.7. Which of the following best describes the **majority** of vegetation on your Park County property and those properties immediately surrounding you? That area might be outside your property boundary. *(Fill in one circle)*

- 8% Grasses
- 74% Light brush and/or isolated trees (ex. grass with some lodgepole pine, scattered aspen, or other conifer)
- 18% Dense brush and/or dense trees (ex. continuous lodgepole pine, dense aspen, or other conifer)

CLOSEHOME (n=413)

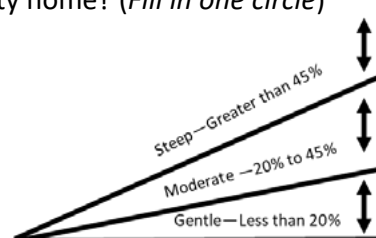
3.8. What is the **closest** distance from your Park County home to a neighboring home? *(Fill in one circle)*

- 76% More than 100 feet
- 23% 30 - 100 feet
- 1% 10 – 29 feet
- 0% Less than 10 feet

SLOPE (n=412)

3.9. The “slope” or “grade” of a property refers to the steepness of the land. How would you describe the slope within 150 feet of your Park County home? *(Fill in one circle)*

- 17% Steep – Greater than 45%
- 49% Moderate – 20% to 45%
- 34% Gentle – Less than 20%



RIDGE (n=411)

3.10. What is the closest distance from your Park County home to a ridge, steep drainage, or narrow canyon? *(Fill in one circle)*

- 69% More than 150 feet
- 19% 50 – 150 feet
- 12% Less than 50 feet

DRIVEWAYL (n=411)

3.11. How long is your driveway? *(Fill in one circle)*

- 61% 150 feet long or less
- 39% Longer than 150 feet

**TURNARND (n=162)**

Would a fire truck be able to turn around in your driveway? *(Fill in one circle)*

- 39% No
- 61% Yes

DRIVEWAYW1 (n=415)

3.12. How wide is the driveway of your Park County residence at the narrowest point? *(Fill in one circle)*

- 8% More than 26 feet (more than two cars wide)
- 24% 20 – 26 feet (two cars wide)
- 68% Less than 20 feet (one car wide)

ROADS (n=413)

3.13. If the road you use to access your Park County home was blocked due to a wildfire, is there another road you could use to get out of your community? *(Fill in one circle)*

- 45% No
- 55% Yes

RISKRATE (n=415)

3.14. Properties in your community are assessed for overall wildfire risk based on the items asked about in questions 3.1 – 3.13 above. What do you think is your Park County property's current overall wildfire risk rating? *(Fill in one circle)*

- 11% Low risk
- 58% Moderate risk
- 23% High risk
- 6% Very high risk
- 2% Extreme risk

Section 4: In this section, we ask about wildfire risk reduction activities.

TALKFIRE (n=411)

4.1. Have you ever talked about wildfire issues with a neighbor? *(Fill in one circle)*

38% No

62% Yes

4.2. Have you done any of the following wildfire-related activities? *(Fill in one circle per row)*

		No	Yes
ACTIVITIES1 (n=415)	Reduced vegetation on my Park County property (ex. cleared/pruned weeds, brush, and trees)	7%	93%
ACTIVITIES7 (n=409)	Regularly cleared my roof and gutters of leaves and pine needles	14%	86%
ACTIVITIES8 (n=415)	Regularly mowed and raked around my Park County home	19%	81%
ACTIVITIES2 (n=411)	Made my Park County home more fire resistant (ex. replaced roofing, siding, added hardscaping)	53%	47%
ACTIVITIES3 (n=415)	Helped neighbor(s) reduce vegetation on their properties	74%	26%
ACTIVITIES4 (n=415)	Helped reduce vegetation on community property (ex. HOA, subdivision)	91%	9%
ACTIVITIES5 (n=415)	Helped reduce vegetation on nearby public lands (ex. county, state, federal lands)	93%	7%
ACTIVITIES6 (n=415)	Participated in a community wildfire activity (ex. meeting, chipper day, etc.)	74%	26%

4.3. How much do you think each of the following factors contributes to the chances of a wildfire damaging your Park County property **in the next 12 months**? *(Fill in one circle per row)*

		A lot	Somewhat	Not at all
CONTRIB1 (n=412)	Vegetation on my property	19%	64%	17%
CONTRIB2 (n=410)	Physical characteristics of my house or other buildings (ex. roofing or siding) on my property	19%	64%	17%
CONTRIB3 (n=413)	Vegetation on my neighbors' properties	28%	59%	14%
CONTRIB4 (n=408)	Vegetation on nearby public or large undeveloped land	23%	48%	29%

NACTION2 (n=407)

4.4. How many of your immediate neighbors do you think have taken action to reduce wildfire risk on their properties (ex. removing dense vegetation or switching to noncombustible siding) *(Fill in one circle)*

- 5% All my neighbors have taken action
- 23% Most of my neighbors have taken action
- 60% Some of my neighbors have taken action
- 12% None of my neighbors have taken action

4.5. How acceptable to you are the following approaches to reducing wildfire risk on nearby public lands? *(Fill in one circle per row)*

		Extremely acceptable	Very acceptable	Moderately acceptable	Slightly acceptable	Not at all acceptable
ACCEPT1 (n=414)	Removing trees and reducing other vegetation (thinning/fuel breaks)	44%	31%	18%	6%	1%
ACCEPT2 (n=413)	Burning piles of vegetation (slash piles)	35%	25%	17%	8%	14%
ACCEPT3 (n=413)	Conducting a prescribed fire ignited by fire managers	23%	24%	26%	16%	12%
ACCEPT4 (n=413)	Managing a naturally ignited fire (lightning)	41%	27%	16%	9%	7%
ACCEPT5 (n=409)	Land use regulations and building codes	29%	31%	27%	8%	5%
ACCEPT9 (n=413)	Removing vegetation along roadways for safe evacuation	54%	34%	10%	1%	1%

Section 5: In this section, we ask about your notions, expectations, and risk perceptions related to wildfire.

5.1. How much do you agree or disagree with the following statements about wildfire?
(Fill in one circle per row)

		Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
STATE2 (n=412)	With proper technology, we can control most wildfires.	5%	35%	25%	30%	5%
STATE3 (n=413)	We should put out wildfires that threaten human life.	62%	32%	5%	1%	0%
STATE4a (n=413)	We should put out wildfires that threaten homes.	55%	37%	7%	1%	0%
STATE5 (n=413)	During a wildfire, saving homes should be a priority over saving forests.	37%	39%	19%	4%	1%
STATE6 (n=415)	Wildfires are a natural part of the balance of a healthy forest/ecosystem.	39%	50%	10%	1%	1%
STATE11 (n=415)	I live here for the trees and will not remove any of them to reduce wildfire risk.	2%	6%	16%	46%	29%
STATE13 (n=415)	Managing the wildfire danger is a government responsibility, not mine.	1%	2%	16%	54%	27%
STATE14 (n=412)	Homeowners' actions to reduce wildfire are not effective.	1%	3%	9%	54%	33%
STATE15 (n=413)	My property is at risk of wildfire.	14%	50%	23%	11%	1%
STATE17 (n=411)	My effort to reduce wildfire risk on my property is ineffective because of the heavy vegetation on my neighbors' properties.	2%	14%	28%	47%	9%
STATE19 (n=409)	Local firefighters have sufficient resources to keep the wildfire from spreading.	1%	8%	34%	39%	19%
STATE20 (n=408)	Local firefighters have sufficient resources to protect threatened homes.	2%	11%	37%	36%	15%
STATE21 (n=410)	Firefighters should put their lives at risk to protect my home.	2%	3%	12%	36%	46%
STATE22 (n=410)	Wildfires threaten my community water supply.	5%	25%	42%	22%	6%
STATE24 (n=411)	I plan to move out of the area in the next 12 months because of wildfires.	0%	0%	7%	28%	65%

5.2. If there is a wildfire on your Park County property, how likely do you think it is that the following would occur? *(Fill in one circle per row)*

		Extremely likely	Very likely	Moderately likely	Slightly likely	Not at all likely	Not applicable
LACT1 (n=415)	I would put the fire out.	11%	10%	20%	30%	27%	1%
LACT2 (n=410)	The fire department would save my home.	7%	33%	43%	14%	3%	0%
LACT3 (n=408)	My home would have smoke damage.	14%	39%	33%	11%	2%	1%
LACT4 (n=408)	My home would have some physical damage.	9%	37%	36%	16%	2%	1%
LACT5 (n=408)	My home would be destroyed.	4%	19%	36%	33%	7%	1%
LACT6 (n=410)	I would lose money due to the loss of business or income on my property.	6%	10%	8%	11%	28%	38%
LACT7 (n=407)	My trees and landscape would burn.	17%	46%	25%	11%	2%	0%
LACT9 (n=408)	My neighbors' homes would be damaged or destroyed.	6%	35%	39%	17%	3%	1%
LACT12 (n=407)	Direct flame would ignite my home.	13%	32%	32%	19%	4%	1%
LACT13 (n=409)	Embers would ignite my home.	8%	31%	37%	20%	4%	1%
LACT14 (n=)	Nearby homes would ignite my home.	3%	17%	23%	29%	27%	2%

CHANCES1 (n=409)

5.3. What do you think is the chance that a wildfire will be on your Park County property **in the next 12 months?** *(Fill in one circle)*

For sure										No chance
100%	90%	80%	70%	60%	50%	40%	30%	20%	10%	0%
0%	0%	1%	2%	2%	24%	6%	14%	20%	26%	4%

CHANCES2 (n=411)

5.4. If there is a wildfire on your property **in the next 12 months**, what do you think is the chance that it will destroy or severely damage your Park County home? *(Fill in one circle)*

For sure										No chance
100%	90%	80%	70%	60%	50%	40%	30%	20%	10%	0%
6%	5%	7%	9%	6%	30%	7%	10%	9%	9%	1%

Section 6: In this section, we ask where you get information about wildfire, how useful the information is, how you receive information, and how you would like to receive information.

6.1. The following sources provide information about wildfire risk. If you have received information from one of these sources, how useful has it been? (*Fill in one circle per row*)

			Usefulness of information among respondents who received information from the source (sums to ~100%)					
		Received information from source		Extremely useful	Very useful	Moderately useful	Slightly useful	Not at all useful
Local fire department	SOURCEREC1 (n=410)	65%	SOURCEUSE1 (n=410)	24%	44%	28%	4%	1%
Community group (ex. homeowners association)	SOURCEREC2 (n=407)	57%	SOURCEUSE2 (n=407)	13%	30%	35%	15%	6%
Community wildfire ambassador	SOURCEREC25 (n=406)	26%	SOURCEUSE25 (n=406)	7%	12%	35%	32%	13%
Fire Adapted Bailey	SOURCEREC26 (n=405)	31%	SOURCEUSE26 (n=405)	17%	37%	30%	10%	6%
Firewise USA®	SOURCEREC5 (n=408)	35%	SOURCEUSE5 (n=408)	19%	33%	32%	9%	6%
Ready, Set, Go! program	SOURCEREC24 (n=406)	15%	SOURCEUSE24 (n=406)	10%	32%	40%	10%	10%
Colorado State Forest Service	SOURCEREC6 (n=406)	24%	SOURCEUSE6 (n=406)	16%	29%	33%	15%	6%
USDA Forest Service	SOURCEREC14 (n=406)	23%	SOURCEUSE14 (n=406)	17%	26%	28%	22%	6%
Bureau of Land Management	SOURCEREC15 (n=406)	15%	SOURCEUSE15 (n=406)	11%	18%	39%	16%	15%
Media	SOURCEREC4 (n=406)	53%	SOURCEUSE4 (n=406)	5%	16%	29%	38%	12%

- 6.2. How do you currently receive information about wildfire risk reduction and how would you prefer to receive information? Please answer **both** questions for each row.
(Fill in two circles per row, one for each question)

		I receive information about how to reduce wildfire risk on my property by...			I prefer to receive information about how to reduce wildfire risk by...	
		No	Yes		No	Yes
Email/e-newsletter	RECEIVEINFO1 (n=394)	62%	38%	WANTINFO1 (n=393)	24%	76%
Mailed newsletter	RECEIVEINFO2 (n=391)	58%	42%	WANTINFO2 (n=398)	28%	72%
Community meetings	RECEIVEINFO3 (n=395)	70%	30%	WANTINFO3 (n=384)	54%	46%
In-person interactions	RECEIVEINFO4 (n=393)	67%	33%	WANTINFO4 (n=381)	43%	58%
Social media (Facebook, Twitter, Nextdoor)	RECEIVEINFO5 (n=395)	64%	36%	WANTINFO5 (n=387)	60%	40%
Internet (non-social media)	RECEIVEINFO6 (n=393)	63%	37%	WANTINFO6 (n=384)	46%	54%
TV news	RECEIVEINFO7 (n=397)	55%	45%	WANTINFO7 (n=381)	57%	43%
Newspaper	RECEIVEINFO8 (n=388)	83%	17%	WANTINFO8 (n=385)	76%	24%
Radio	RECEIVEINFO9 (n=391)	82%	18%	WANTINFO9 (n=385)	71%	29%

Section 7: In this section, we would like to know why you do or do not take action to reduce the risk of wildfire to your Park County property.

- 7.1. Do any of the following **prevent you** from taking action to reduce the wildfire risk on your Park County property (ex. cutting trees, changing roof/siding)?
(Fill in all circles that apply for each row)

	FACTOR1 (n=408)	FACTOR2 (n=408)	FACTOR3a (n=408)	FACTORNO1 (n=408)
Personal resources	Financial cost 44%	Time to do the work 28%	Physical ability to do the work 40%	None of these 29%
Lack of specific information about...	FACTOR11 (n=400) The factors contributing to my property's wildfire risk 19%	FACTOR4 (n=400) How to reduce wildfire risk on my property 24%	FACTOR12 (n=400) Where to dispose of vegetation/slash 23%	FACTORNO2 (n=400) None of these 57%
Personal perspectives	FACTOR6 (n=406) I do not want to change the way my property looks 11%	FACTOR5a (n=406) I do not think taking action would reduce my property's wildfire risk 8%	FACTOR13 (n=406) It's a low priority to me 6%	FACTORNO3 (n=406) None of these 76%
Community	FACTOR14 (n=402) Lack of options for disposing vegetation/slash 27%	FACTOR9a (n=402) Restrictions on the changes I can make to my property 2%	FACTOR15 (n=402) Social pressure from neighbors 1%	FACTORNO4 (n=402) None of these 71%

7.2. Would any of the following encourage you to take action to reduce the wildfire risk on you Park County property? *(Fill in all that apply for each row)*

Resources	INCENTV1 (n=402)	INCENTV3 (n=402)	INCENTV4 (n=402)	INCENTVNO1 (n=402)
	Cost-share or financial assistance 48%	Help doing the work 52%	Recommended contractors 24%	None of these 27%
Information	INCENTV6 (n=404)	INCENTV7 (n=404)	INCENTV8 (n=404)	INCENTVNO2 (n=404)
	A report describing my property's wildfire risk factors 52%	Videos showing how to reduce risk on a property in my area 24%	One-on-one visit with wildfire risk experts on my property 57%	None of these 25%
Other	INCENTV9 (n=402)	INCENTV10 (n=402)	INCENTV11 (n=402)	INCENTVNO3 (n=402)
	Feedback on the work I've done to reduce my property's risk 39%	Recognition for taking action 9%	Neighborhood group that organizes wildfire risk-reduction activities 26%	None of these 45%

Section 8: In this section, we ask about personal and household characteristics. Your name will never be connected to your answers in any way.

RISKTAK1 (n=401)

8.1. In general, do you view yourself as someone who is not at all willing to take risks or very willing to take risks? (Fill in one circle)

Very willing to take risks									Not at all willing to take risks	
10	9	8	7	6	5	4	3	2	1	0
3%	3%	10%	15%	12%	27%	8%	8%	6%	4%	3%

AGE (n=403)

8.2. What is your age? (Fill in the blank)

Mean age 60 years old

GENDER (n=395)

8.3. Are you? (Fill in one circle)

- 63% Male
- 37% Female

EDUC (n=404)

8.4. What is the highest grade or year of school you completed? (Fill in one circle)

- 1% Less than high school
- 9% High school graduate
- 20% Some college or technical school
- 8% Technical or trade school
- 39% College graduate
- 6% Some graduate work
- 17% Advanced degree (M.D., M.A., M.S., Ph.D., etc.)

EMPLOY (n=404)

8.5. Which of the following best describes your current employment situation?
(Fill in one circle)

- 46% Employed full time (including self-employed)
- 10% Employed part time (including self-employed)
- 4% Unemployed or do not work outside of the home
- 41% Retired

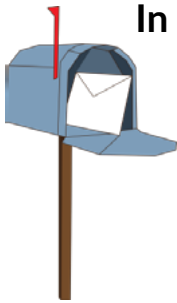
INCOME (n=365)

8.6. Which of the following categories describes your annual household income?
(Fill in one circle)

- 3% Less than \$15,000
- 4% \$15,000 - \$24,999
- 7% \$25,000 – \$34,999
- 13% \$35,000 - \$49,999
- 16% \$50,000 - \$74,999
- 19% \$75,000 - \$99,999
- 21% \$100,000 - \$149,999
- 9% \$150,000 - \$199,999
- 6% \$200,000 or more

Thank you for your help. Please use the space below to write any additional comments.

Appendix E: Infographic-Style Outreach Pamphlet



In 2020, we sent you a survey on wildfire risk.

Who responded?

Over 420 households responded! We had a **36%** survey response rate, which is very high for this type of survey.

Who are we?

Platte Canyon Fire Protection District (PCFPD) provides fire suppression, and PCFPD and **Burland Firewise** both support wildland fire mitigation, education, and many other services to Platte Canyon and Burland Ranchettes.



FIRE ADAPTED
BAILEY
Building Community
& Wildfire Resilience



We also sent professionals to assess your wildfire risk.

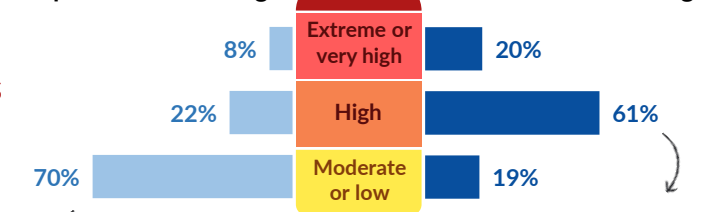


We found a mismatch. Your home's overall wildfire risk may be higher than you think.

Respondent risk ratings

vs.

Professional risk ratings



Residents tended to rate their house's risk as moderate or low.

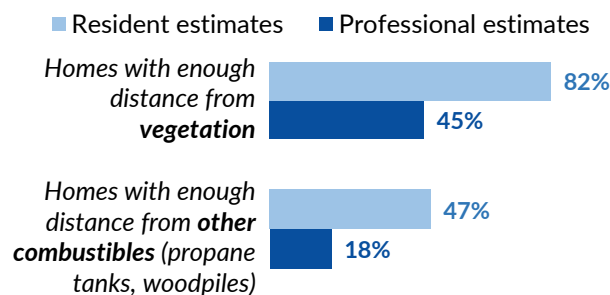
Professionals tended to rate those houses' risk as high.

Respondents (left side) rate wildfire risk lower than professionals (right side), for the same set of houses.

(Each risk rating is relative to the rest of the community, not to the rest of Colorado or the US overall.)

Is your defensible space big enough? Vegetation and other combustibles should be at least 30 feet from the home.

Survey respondents tended to overestimate the size of their defensible space.



To maintain defensible space, within 30 ft of all structures you should **remove**:

- ☐ Weeds/grasses >4 inches
- ☐ Leaves, dead limbs, twigs
- ☐ Tree branches (live & dead) overhanging the home
- ☐ Combustibles/flammables (outdoor furniture, barbecue grills, etc.)
- ☐ Firewood (move 100 ft away and uphill)
- ☐ Tree limbs such that the lowest limbs are 15ft from the ground and there is 20ft between treetop branches



Questions? Please contact us!

(303) 838-5853

info@plattecanyonfire.com

How safe is your home?



Do you have a green reflective 911 sign? Only 33% of residents do, according to the professional assessment. These signs help firefighters find your house in dark, smoky conditions. **Buy one for \$10.** Call Annie Linnehan at (303) 838-5853 or visit plattecanyonfire.com/green-address-signs or, in Burland Ranchettes, email firewisebrhoa@gmail.com or visit burlandfirewise.com/address-markers

Check off the mitigation actions as you accomplish them this month:

- ☐ Cleaned gutters of flammable debris
- ☐ Cleaned chimneys (once a year)
- ☐ Pruned trees and shrubs within 15 ft of a chimney or stovepipe outlet
- ☐ Removed vines from the walls of the home
- ☐ Removed debris under decks
- ☐ Stored gas and oily rags in safety cans
- ☐ Cleared 10 ft around propane tanks or barbeque and placed a screen over the grill
- ☐ Asked the power company to clear branches from power lines



For more details and more suggestions, visit plattecanyonfire.com/wildland-fire-safety or scan the QR code.

Have you talked to your neighbors about wildfire mitigation yet?

Folks who talk to their neighbors about wildfire are more likely to take mitigation action, according to the survey. That means your voice matters!



Your risk is connected to your neighbor's—if their house catches on fire, it's more likely yours will. Work with your neighbors to reduce risk!

Address sign photo courtesy of bewildfireready.org/9-1-1-reflective-address-signs/

Do you have a plan?

Evacuation checklist:

Before a wildfire:

- ☐ Prepare an evacuation kit that is stored in car
- ☐ Determine how members of household will contact each other during an emergency
- ☐ Identify multiple possible evacuation routes
- ☐ Select out-of-town emergency contact
- ☐ Photograph and safely store important documents
- ☐ Complete annual insurance coverage review

During a wildfire:

- ☐ Stay aware of the latest news/updates
- ☐ Leave as early as possible!
- ☐ Pack valuables in the car
- ☐ Close all windows/doors/vents/shutters, remove flammable curtains
- ☐ Shut off natural gas or other fuel sources
- ☐ Fill all tubs, pools, garbage cans with water
- ☐ Leave out ladder and hoses for firefighters

For more details and many more tips, visit plattecanyonfire.com/wildland-fire-safety

Here are some answers to your top questions about evacuation reported on the survey:

How I will be notified about evacuation?



CodeRED will notify you. Sign up today—73% of survey respondents already have! public.coderedweb.com/CNE/en-US/F9FB36CB1C0D

When do I evacuate?

This depends on the wildfire. If you haven't received an evacuation notice, but your instincts are telling you to evacuate, do so immediately.

What are the safe evacuation routes?

There are no guaranteed evacuation routes during a wildfire. Try to leave as soon as possible to avoid road closures.



In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

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