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Living with Wildfire in Montrose County, Colorado: 2023 Data Report

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Abstract: During 2022–2024, the Wildfire Research (WiRē) Center partnered with the West Region Wildfire Council (WRWC) to learn more about parcel-level wildfire risk in Montrose County, Colorado. This research project was part of a larger, sustained collaboration between WiRē and the WRWC, moving the focus from areas typically characterized as fire-prone due to heavily treed and steep topography, into an area with relatively gentle topography and lighter fuels. The study area borders and includes northern portions of Ouray County that fall within the service area of Montrose County Fire Protection District. The area was of particular interest to the WRWC because it lacks some of the social infrastructure typically leveraged to build community relationships, such as Homeowners Associations, and the WRWC sought to build understanding in order to provide a foundation to foster stronger ties to pursue wildfire risk reduction. The study also presented an opportunity to help assess interest in the WRWC’s cost share program intended to facilitate risk mitigation action on private properties.

Keywords: WiRē (wildfire research), co-produced research, risk assessment, survey data, social science, community, resident, wildfire risk, preparedness, mitigation, wildland urban interface (WUI)

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¹ Goolsby, Julia B.; Champ, Patricia A.; Wittenbrink, Suzanne; Donovan, Colleen; King, Kris; Brenkert-Smith, Hannah; Meldrum, James R.; Barth, Christopher M.; Wagner, Carolyn; Forrester, Chiara C. 2024. Living With wildfire in Lake Wenatchee, Chelan County, Washington: 2022 Data report. Res. Note RMRS-RN-103. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 130 p. <https://doi.org/10.2737/RMRS-RN-103>

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Executive Summary

During 2022–2024, the Wildfire Research (WiRē) Center partnered with the West Region Wildfire Council (WRWC) to learn more about parcel-level wildfire risk in Montrose County, Colorado. This research project was part of a larger, sustained collaboration between WiRē and the WRWC, moving the focus from areas typically characterized as fire-prone due to heavily treed and steep topography, into an area with relatively gentle topography and lighter fuels. The study area borders and includes northern portions of Ouray County that fall within the service area of Montrose County Fire Protection District. The area was of particular interest to the WRWC because it lacks some of the social infrastructure typically leveraged to build community relationships, such as Homeowners Associations, and the WRWC sought to build understanding in order to provide a foundation to foster stronger ties to pursue wildfire risk reduction. The study also presented an opportunity to help assess interest in the WRWC's cost share program intended to facilitate risk mitigation action on private properties.

This project centers on two types of data: rapid wildfire risk assessment data and household survey data. The WiRē Rapid Wildfire Risk Assessment (WiRē RA) protocol measures parcel-level risk as the sum of a set of 13 attributes, building materials, defensible space, background conditions, and access to the property. The assessments were conducted on all properties with residential structures within the study area. Next, a survey was sent to all households in the study area, collecting homeowners' self-assessment of their property's wildfire risk as well as a range of social data related to how residents live with the risk of wildfire. The survey included a battery of questions intended to assess interest in the WRWC's cost share program and evaluate whether the way the program was being administered created barriers to participation. This report summarizes the results of this study.

Montrose County residents who responded to the survey reported being aware of wildfire despite very little direct or indirect experience with wildfire. Further, respondents report having taken action to reduce risk on their property. However, when comparing results from the WiRē RA with survey respondents' self-assessments it appears that respondents systematically overestimate the distances from their homes to unmanaged vegetation and other combustibles that could lead to home ignition, indicating opportunities to engage residents to improve conditions within that critical zone. The cost share program evaluation component of the household survey revealed both a broad interest in being compensated for fuels reduction activities and highlighted some programmatic features that deterred potential participation. This included having to hire the contractor who would do the work and paying in full ahead of reimbursement, the timing of knowing the final cost of reimbursement, as well as the perceived complexity of the cost share program.

Further, given the lack of multiple egress opportunities observed through the WiRē RA and the low portion of respondents reporting having signed up for emergency notification, it appears that residents may benefit from outreach and incentive programs to encourage emergency preparedness measures including notification sign-ups in addition to efforts to encourage wildfire risk mitigation.

What is WiRē?

The Wildfire Research (WiRē¹) Center 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 is 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, as an important ecological process, on the landscape when it is safe and beneficial 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 mission of the WiRē Center is to support evidence-based community wildfire education and mitigation 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 in the study area. Leveraging lessons learned across projects, the WiRē Center pursues scientific approaches to inform conversations and decisions about wildfire adaptation.

The WiRē Approach

The WiRē Approach includes two central data collection efforts:

1. A property-level WiRē Rapid Wildfire Risk Assessment (WiRē RA) based on attributes related to building materials, fuels near the home, background fuels and topography, and access to the property. The WiRē RA also includes an overall risk rating for the property. 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 (refer to *Methods*).
2. A social survey sent to the owner of each assessed property, which represents their notions of wildfire risk, how they communicate about wildfire risk, risk mitigation behaviors, including evacuation planning, and barriers and incentives to mitigate wildfire risk on private properties.

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 a vocal few. To support these discussions and other partner goals, the WiRē Center summarizes local data and provides wildfire practitioner partners with the tools

¹ Pronounced Wy-REE

to act on research results. The WiRē Center also works with some partners with a regional reach 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 lands and wildfire risk. Guided by the WiRē Team, the WiRē Center advances understanding of effective pathways to community wildfire adaptation.

Study Area: What Do the Community and Environment Look Like?

The WiRē Center partnered with the West Region Wildfire Council (WRWC) to implement the WiRē Approach in the Montrose Fire Protection District service area, which includes some parts of northern Ouray County (refer to fig. 1). This project grew out of a long-running collaboration with the West Region Wildfire Council and the Wildfire Research (WiRē) Center that has included projects in Ouray, San Miguel, and Delta Counties.² Following those collaborations, the WRWC approached the WiRē Center about implementing a project in the Montrose Fire Protection District service area in order to learn more about the residents, their understandings of wildfire risk, and how the WRWC can foster more opportunities to support action to reduce wildfire risk.

The landscape within the WRWC service area presents significant mitigation challenges and opportunities on private properties as well as on public lands that surround the communities. A significant challenge of wildfire in the area relates to fire response capacity within local fire response organizations. For the broader area, there are typically fewer than 20 career firefighters on duty at any one time. Accordingly, the WRWC views this limited response capacity as a significant challenge that could exacerbate the severity and impact of both wildland and structural fire events.

2 Donovan, C.; Gomez, P.J.; Falk, L.; Barth, C.M.; Champ, P.A.; Brenkert-Smith, H.; Meldrum, J.R.; Wagner, C. 2022. Living with wildfire in Log Hill Mesa, Ouray County, Colorado: 2017 data report and a comparison to 2011 and 2012 data. Res. Note RMRS-RN-91. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 45 p. <https://doi.org/10.2737/RMRS-RN-91>

Meldrum, J.R.; Falk, L.C.; Gomez, J.; Barth, C.M.; Brenkert-Smith, H.; Warziniack, T.; Champ, P.A. 2017. Living with wildfire in Telluride Fire Protection District, Colorado. Res. Note RMRS-RN-75. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 30 p. <https://doi.org/10.2737/RMRS-RN-75>

Meldrum, J.R.; Barth, C.M.; Colter Falk, L.; Brenkert-Smith, H.; Warziniack, T.; Champ, P.A. 2015. Living with wildfire in Delta County, Colorado: Cross-community comparisons. Res. Note. RMRS-RN-67. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 33 p. <https://doi.org/10.2737/RMRS-RN-67>

Meldrum, J.R.; Barth, C.M.; Falk, L.C.; Brenkert-Smith, H.; Warziniack, T.; Champ, P.A. 2013. Living with wildfire in Log Hill Mesa, Colorado. RMRS-RN-66. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 35 p. <https://doi.org/10.2737/RMRS-RN-66>

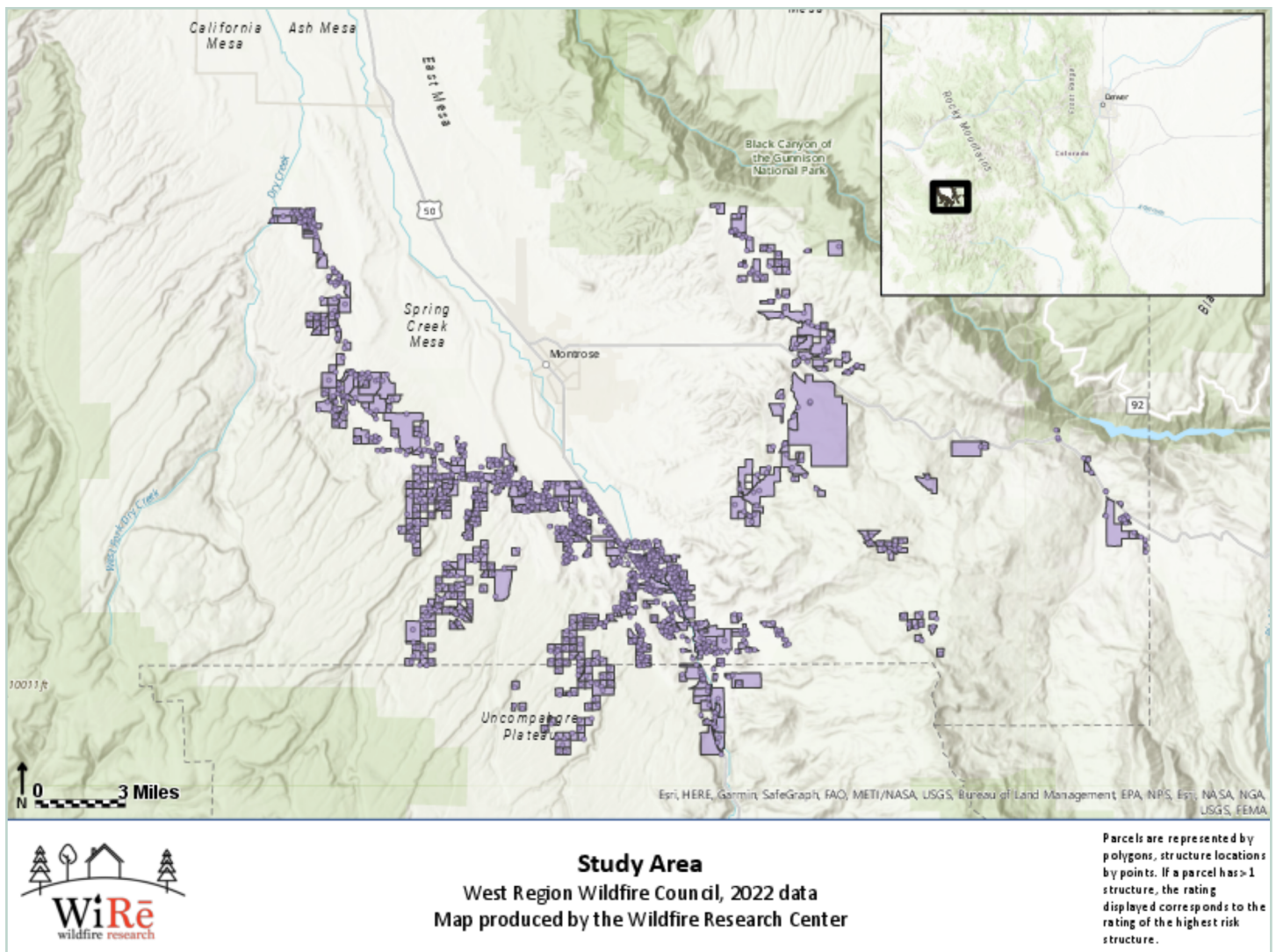


Figure 1—Map of residential parcels in the Montrose (and parts of Ouray) County, Colorado study area. Inset shows the location of the study area in Colorado. Map image is the intellectual property of Esri and is used herein under license. Copyright © 2020 Esri and its licensors. All rights reserved.

WiRē Partner: West Region Wildfire Council

Headquartered in Ridgway, Colorado, the West Region Wildfire Council (WRWC) serves six western Colorado counties—Delta, Gunnison, Hinsdale, Montrose, Ouray, and San Miguel—as a critical umbrella organization dedicated to reducing wildfire losses in the wildland-urban interface. The WRWC helps communities prepare for wildfires by providing mitigation support, technical assistance, and funding while fostering collaboration to reduce risk and prevent devastation.

Methods: What Did We Do?

In the study area, the WRWC and WiRē implemented the WiRē Approach, a systematic approach to data collection that includes a parcel-level WiRē RA and household survey data collection. This project also included a follow-up survey to residents living in the unannexed part of the study area. Together, these three forms of data collection support better understandings of wildfire risk and the residents whose decisions and actions shape the

community landscape. The project launched with the mailing of an initial letter in summer 2022 to inform residents in the study area of the upcoming activities (refer to Appendix A for correspondence materials and household survey).

Rapid Wildfire Risk Assessments

Rapid assessment data collection was conducted by the WRWC’s mitigation specialist as a census of all residential properties with a structure in the study area. Rapid assessments were conducted for 1,260 residential properties in summer and fall of 2022 using the standard WiRē RA. The WiRē RA is composed of a set of 13 attributes that includes building materials, vegetation near the home, background fuels and topography, and access to the property.

To calculate a parcel’s overall “risk score” (continuous number on a 1,000-point scale), each WiRē RA attribute is weighted, reflecting its relative contribution to parcel-level wildfire risk (refer to fig.2). For example, because roofing materials can present a more significant risk than address posting, these attributes are weighted differently, constituting 30 percent and 1 percent of the overall risk score, respectively. Refer to Appendix B for specific rapid assessment attribute weightings.

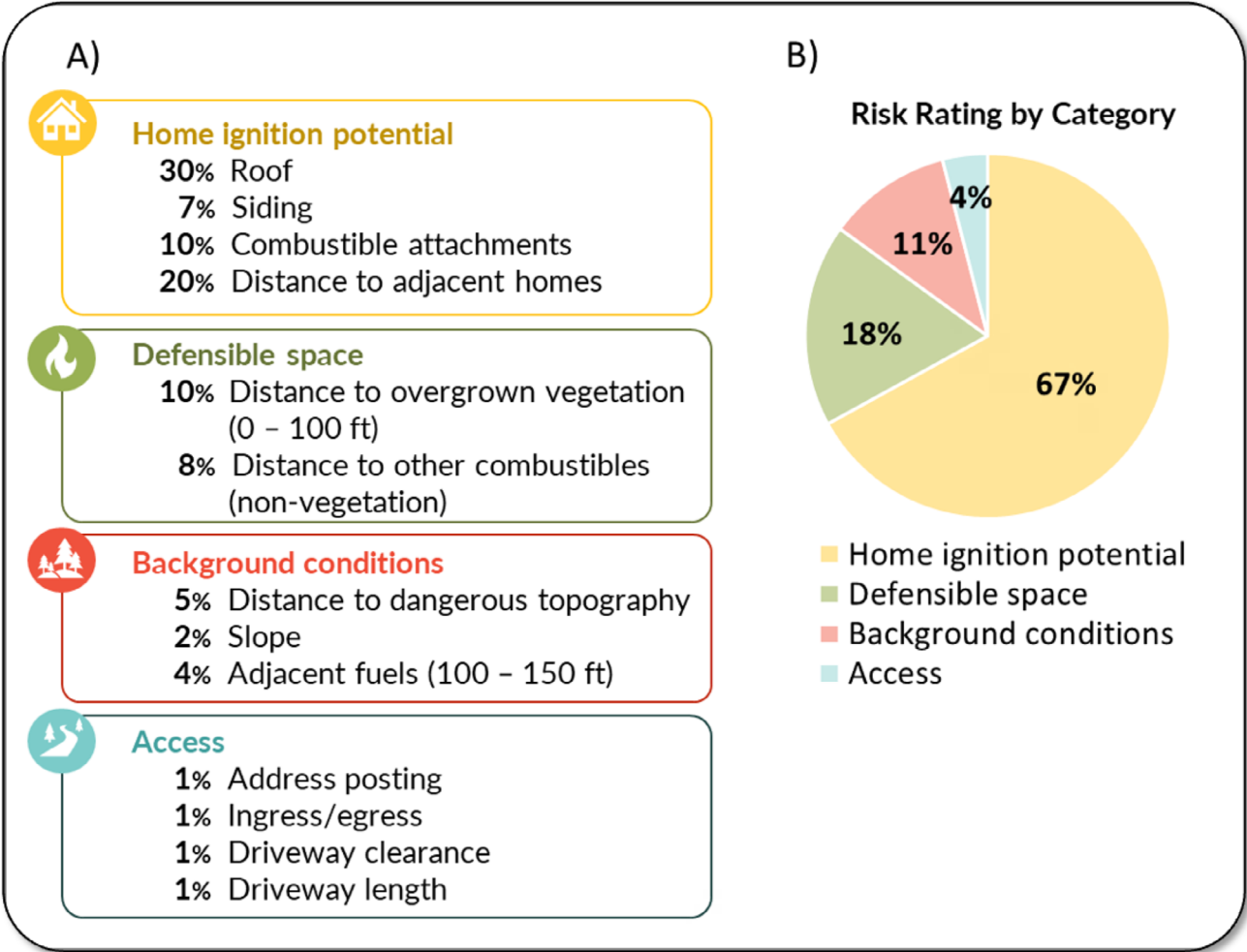


Figure 2—Wildfire Research (WiRē) Rapid Wildfire Risk Assessment. (a) Relative weight of each risk attribute within the overall risk score. (b) Relative weight of each risk category within the overall risk score.

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. This resulted in the following overall risk ratings: low (20–260), moderate (261–325), high (326–455), very high (456–540), extreme (541–1,000).

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 (see Appendix B).

To ensure consistent, high quality data collection, WiRē wildfire practitioners conducted a training that included a virtual orientation for those who would conduct the rapid assessments. Additionally, data were collected using ArcGIS Collector. A standardized reference sheet for data collectors was available in the *Assessor Reference Guide* for use in the field (refer to Appendix B).

All parcel level assessments were conducted by the WRWC and were completed on all residential properties in the study area unless access was blocked by a gated driveway or posted with no trespassing signage. 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, many of the responses pertaining to combustible attachments and combustibles other than vegetation were coded as “unknown/not observed.”

Household Survey

The household survey was designed to collect a range of social data related to how residents in the study area live with the risk of wildfire. Most of the survey questions are standardized across WiRē projects. However, some questions were tailored to address the interests of the WRWC. WiRē and the WRWC worked collaboratively to develop the final version of the household survey. The household survey was mailed to the owners of all the properties for which a WiRē RA was completed.³ Household survey data were collected using a modified Dillman approach⁴ that includes three mailings after the initial letter announcing project activities and the data collection efforts (refer to 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, a reminder/thank you postcard, was 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 non-respondents approximately one month after the reminder postcard.

³ 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.

⁴ For details, refer to Dillman, Don A. 2000. *Internet and Mail Surveys: The Tailored Design Method*, 2000. New York: John Wiley. 480 p.

The household survey was sent to 1,081 households. Nineteen were returned as undeliverable and 270 surveys were completed and returned for a 25 percent response rate.

Table 1—Timing of the household survey administered to residents in the study area (Montrose (and parts of Ouray) County, Colorado) by the West Region Wildfire Council and the Wildfire Research (WiRē) to collect information related to wildfire risk.

Mailing	Date of mailing
Initial letter	6/21/2022
First survey package	12/28/2022
Postcard reminder	1/26/2023
Second survey package	3/2/2023

Paired Rapid Assessment and Household Survey Data

The WiRē RA data, for which we have 1,260 records, were paired with the household survey data, for which we have 270 records, to produce 268 records with all the household survey and WiRē RA variables. This report summarizes results based on those 268 paired records.⁵

A Comparison of Rapid Assessment: Results of the Wirē Rapid Assessment and Household Survey

In this section, we present the rapid risk assessment results from the WiRē RA and the household survey. First, we present overall wildfire risk from all rapid assessments in the study area, and then we focus on the properties for which we have both rapid assessment and household survey data (“paired data,” refer to fig. 3) to compare the professional risk ratings to the self-assessed risk ratings.

Statistical tests were performed to assess whether parcel-level wildfire risk was different for parcels whose residents responded to the household survey (i.e., the paired data) compared to parcels in the study area whose residents did not respond. No statistical differences were found.

5 Any differences between the numbers reported here and the Household Survey Summary (Appendix E) should be minor and the result of rounding.

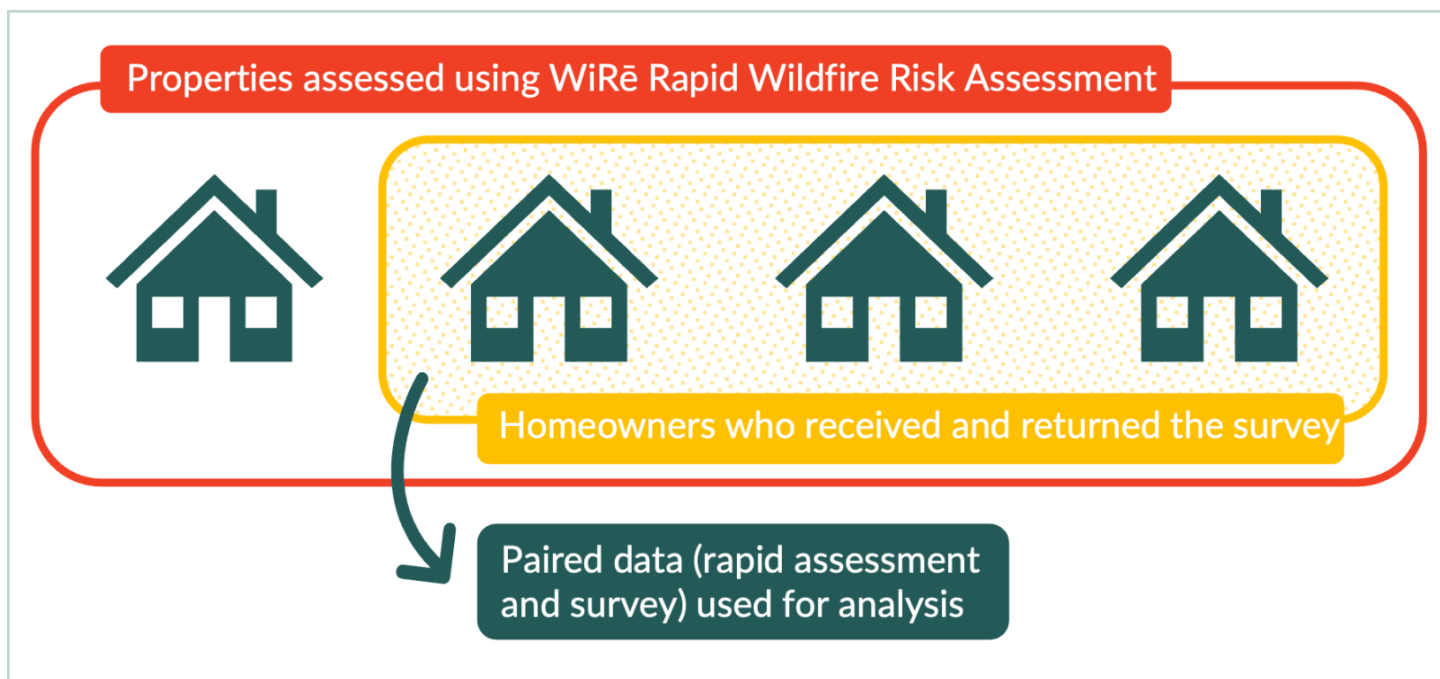


Figure 3—Representation of the rapid assessment and household survey data collected as part of a WiRē project, which combine to produce the paired data.

Community Risk: Results of the WiRē Risk Assessment

A total of 1,260 parcels were assessed by the WRWC using the WiRē RA. These parcels were assessed on 13 attributes and overall risk was categorized as low risk (49%), moderate risk (27%), high risk (19%), very high risk 1%) or extreme risk (4%). For more details, refer to Appendix C, table 1.1. Risk Assessment Attributes: Observed in WiRē Risk Assessment Versus Self-Assessed by Household Survey Respondents

The results presented below are based on data for which we have a risk assessment paired with a household survey (N =262) (refer to Appendix D). In other words, the data used in this section only represent properties for which a household survey was completed and there is an associated WiRē RA. The WiRē RA and household survey data were compared by looking at the overall wildfire risk rating and the results for each risk attribute. The household survey asked residents to evaluate their property using the same attributes as the WiRē RA, which allows for this comparison. The results below are organized by overall risk and then risk categories of home ignition potential, defensible space, background conditions, and access.

Overall wildfire risk rating—

Survey respondents evaluated their property's risk for each of 13 risk attributes included in the WiRē RA. They were also asked to provide an assessment of their property's overall wildfire risk based on the 13 risk attributes. The survey question about overall wildfire risk offered five response options: low, moderate, high, very high, or extreme risk. This scale matches the WiRē RA's overall risk rating scale; however, unlike the survey overall ratings, the WiRē RA's overall ratings were calculated as the sum of each individual risk attribute score with each risk category (i.e., low, moderate, high, very high, extreme) representing a specific numerical range. The WiRē RA overall ratings reflect the relative weight of the various attributes (e.g., a wood roof is 30 percent of the overall risk score). Comparing the WiRē RA to

survey responses provides insight into the differing risk perspectives of residents and wildfire professionals. Below we compare the 262 matched pairs.

Overall, the distribution across the five risk categories based on the WiRē RA and the survey respondents’ self-assessments are largely similar. Respondents were slightly more likely to characterize their parcel as having low or moderate risk (89%) than was found through the WiRē RA that identified 75 percent as low or moderate risk. Twenty-one percent of the parcels were categorized as having high risk by the WiRē RA compared to only 9 percent of survey respondents identifying their parcel as such. The WiRē RA only identified 5 percent of properties as very high (1%) or extreme (4%), while only 3 percent of survey respondents identified their properties as very high, and no respondents identified their property as having extreme risk (refer to fig. 4).

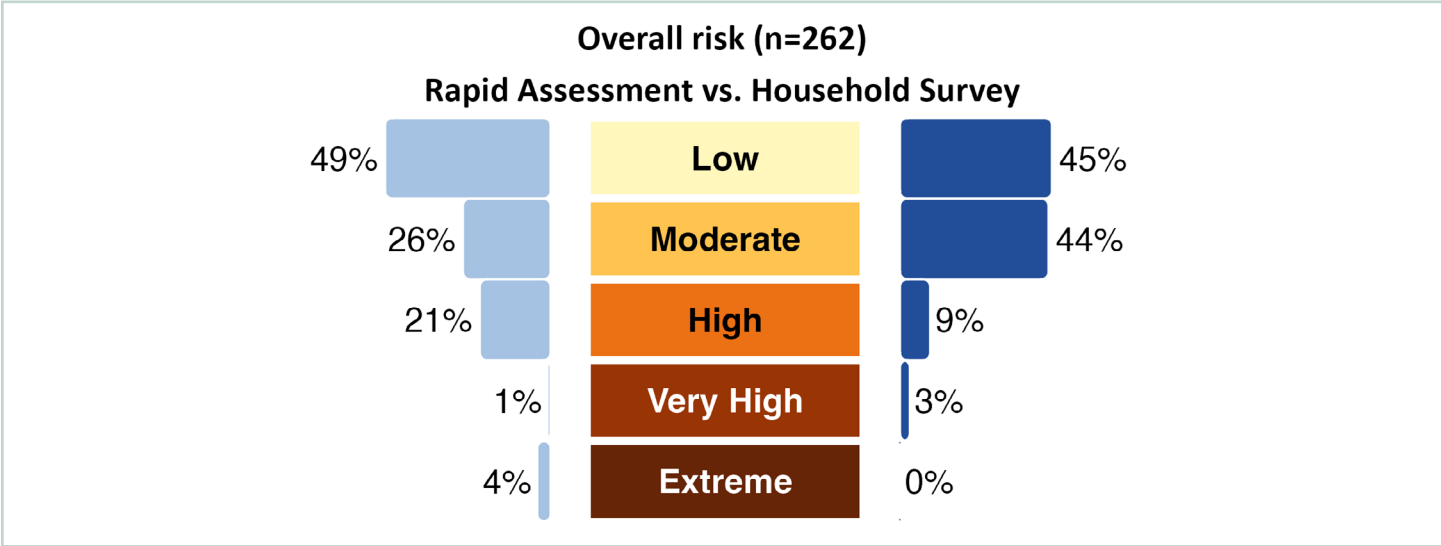


Figure 4—Distribution of overall risk rating. Comparison of household survey data collected in 2022–2023 as reported by survey respondents in the Montrose (and parts of Ouray) County, Colorado study area, and paired Wildfire Research (WiRē) Rapid Assessment data. Represents 262 paired household survey and rapid assessment data.

Home ignition potential—

Wildfire conditions can impose long periods of convective, conductive, and radiant heat on structures. These conditions test the limits of the materials used in construction. Both the design and building materials play a role in the ignitability of a structure.

Risk attribute: roof—

The roofing material of a structure is a critical component in determining ignitability. Roofs were assessed by the material from which they were constructed. These were either fire-resistant (noncombustible) materials such as metal, tile, and asphalt, or fire-receiving (combustible) materials such as wood shingles.

The survey responses and WiRē RA data are similar with most roofs observed in the RA or reported in the survey as being made of non-combustible materials (96% and 98%, respectively) (refer to fig. 5).

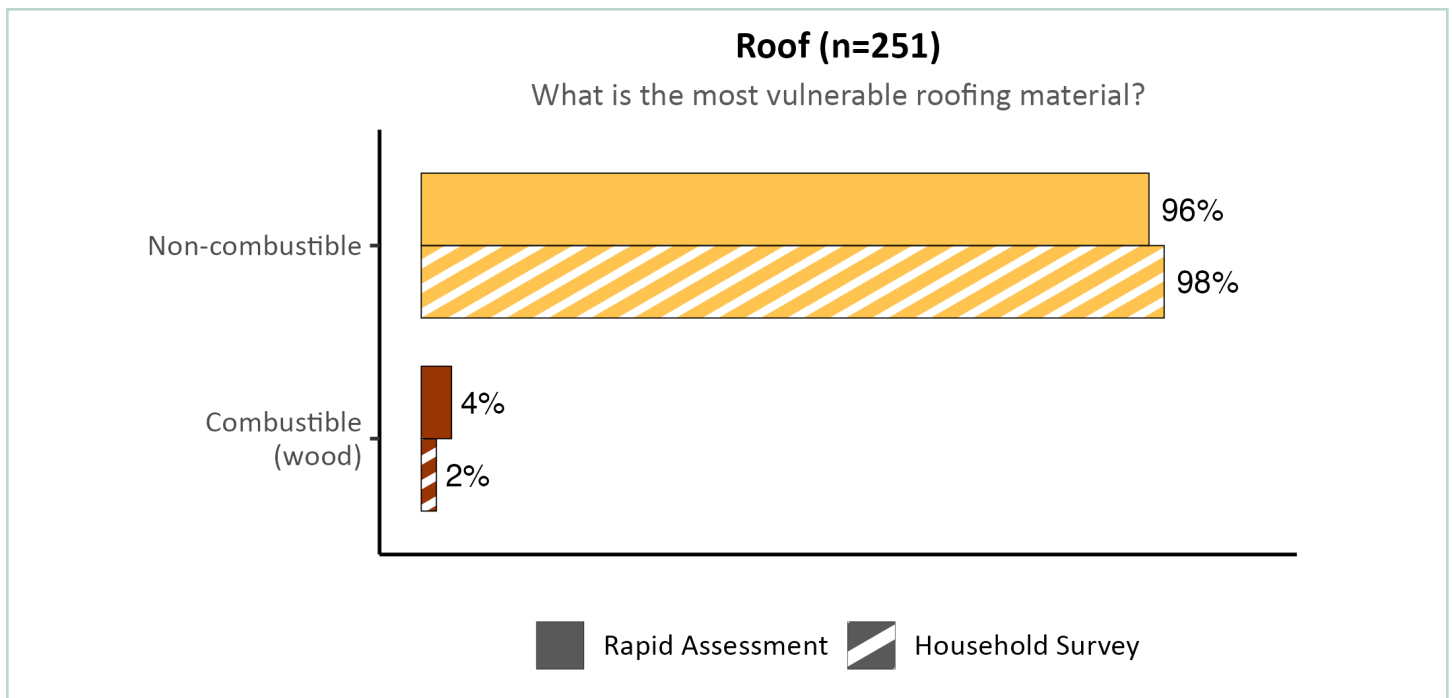


Figure 5—Combustibility of residential roof type. Comparison of household survey data collected in 2022–2023 as reported by survey respondents in the Montrose (and parts of Ouray) County, Colorado study area, and paired Wildfire Research (WiRē) Risk Assessment data. N = 251 responses to this survey question.

Risk attribute: siding—

A structure’s exterior walls, including the materials used, contribute to the overall ignitability of a home in a wildfire event. The siding of homes was assessed into three categories: low-risk, noncombustible materials (e.g., stucco, brick, stone); medium-risk, combustible materials (log or heavy timbers); or high-risk combustible materials (vinyl, wood, or other ember-receptive siding).

Half the survey respondents (50%) reported that their home’s siding is non-combustible. However, the WiRē RA observed wood or vinyl siding on nearly two thirds (67%) of the homes (refer to fig. 6).

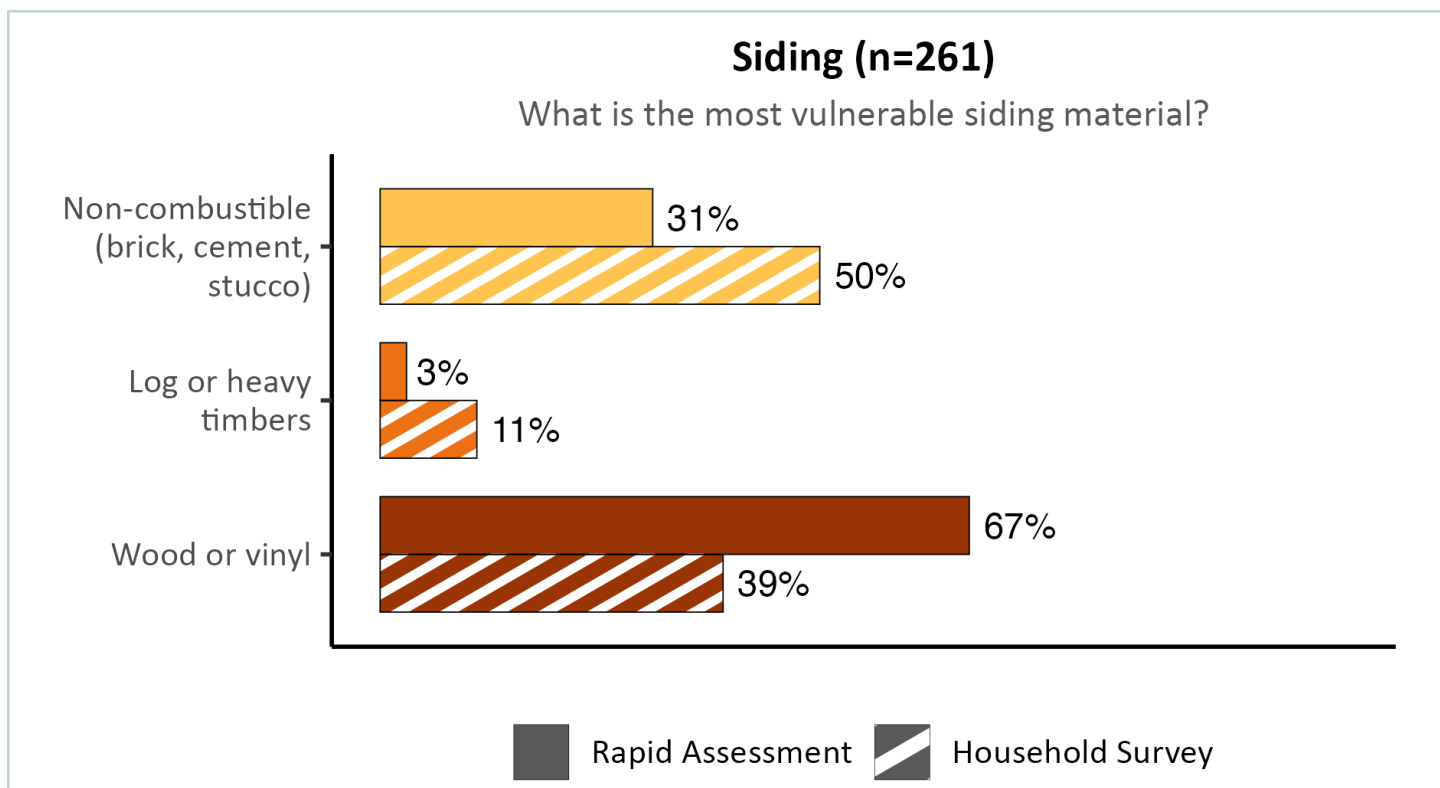


Figure 6—Residential exterior siding type, categorized by material into low, medium, and high-risk categories. Comparison of household survey data collected in 2022-2023 as reported by survey respondents in the Montrose (and parts of Ouray) County, Colorado study area, and paired Wildfire Research (WiRē) Rapid Assessment data. N = 261 responses to this survey question.

Risk attribute: combustible attachments—

Attachments to structures (e.g., wooden decks, fences) increase the area exposed to blowing embers in a wildfire event and could increase ignition potential. Parcels were assessed on the presence or absence of combustible attachments, including a combustible balcony, deck, porch, and fence.

Regarding the presence of combustible attachments, survey and WiRē RA data are largely in alignment. Both the WiRē RA and the survey respondent data indicate that most structures had combustible attachments, at 63 percent and 60 percent, respectively (refer to fig. 7).

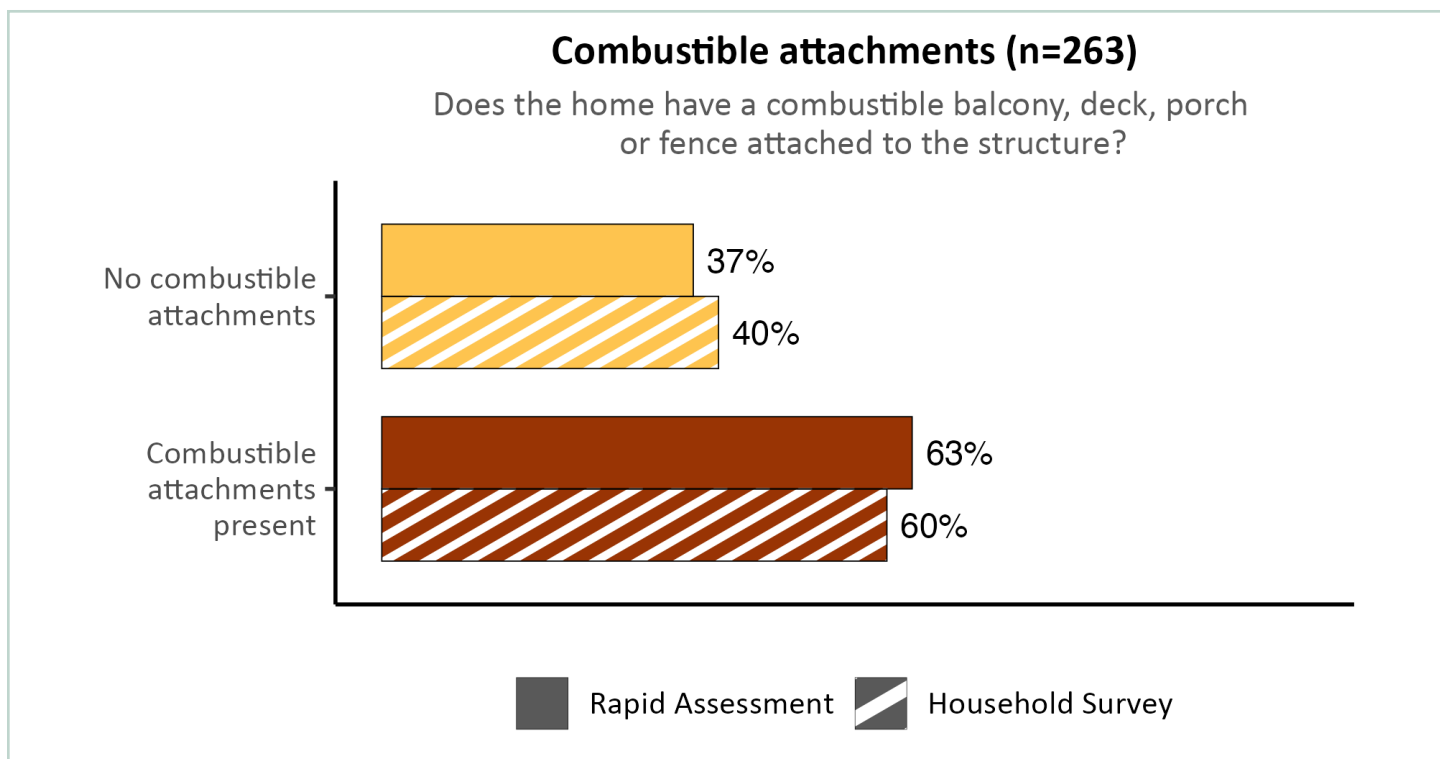


Figure 7—Presence or absence of combustible attachments. Comparison of household survey data collected in 2022-2023 as reported by survey respondents in the Montrose (and parts of Ouray) County, Colorado study area, and paired Wildfire Research (WiRē) Rapid Assessment data. N = 263 responses to this survey question.

Risk attribute: proximity to adjacent homes—

Home-to-home ignitions (i.e., conflagration) are a significant factor in the spread of fire through more densely built environments. Homes and structures built with combustible materials can ignite due to radiant heat. Homes located in close proximity are more likely to result in home-to-home ignition. In conflagration events, homes are both the recipients of fire and the drivers of fire. Parcels were assessed on the proximity of homes to nearby structures.

Nearly all survey respondents (94%) reported that adjacent homes were more than 100 feet away. Similarly, the WiRē RA placed most (97%) homes in that category (refer to fig. 8).

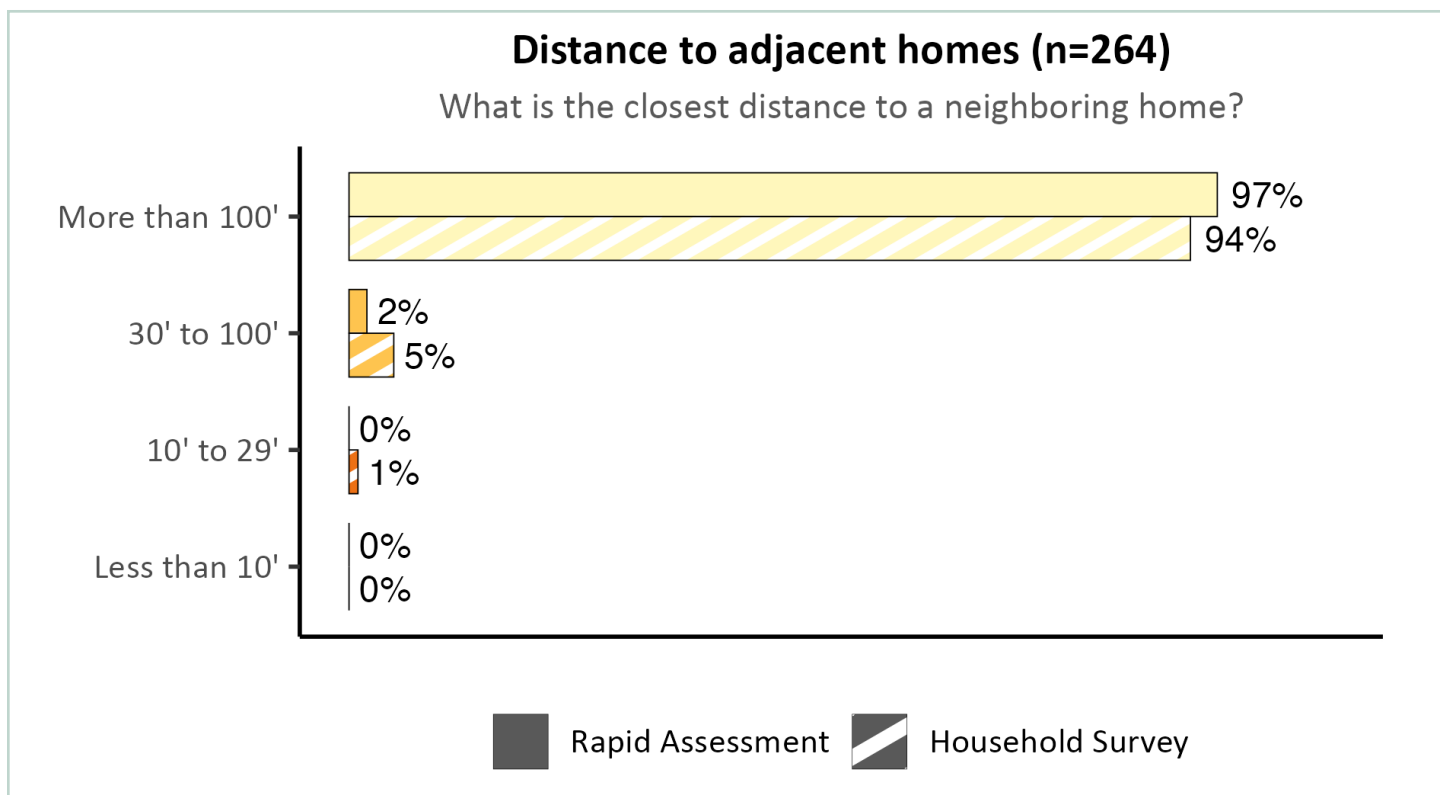


Figure 8—Proximity to adjacent homes, categorized by closest distance to neighboring home. Comparison of household survey data collected in 2022-2023 as reported by survey respondents in the Montrose (and parts of Ouray) County, Colorado study area, and paired Wildfire Research (WiRē) Rapid Assessment data. N = 264 responses to this survey question.

Defensible space—

Home ignition is affected by the presence of, or in direct contact with, vegetation and other combustible materials which can ignite and transfer heat to the home itself. Additionally, vegetation and combustible materials around the home influence fire behavior and firefighters' ability to access and defend the home (e.g., a canopy fire in a densely treed area around the home is more difficult to suppress than a fire on the ground).

Risk attribute: distance to overgrown vegetation—

The presence of fuels within 100 feet of the home increases the risk of wildfire damage to the home. Particularly flammable or abundant vegetation near the home may ignite and spread fire to the home. Distance to overgrown vegetation (also referred to in earlier versions of the assessment as “defensible space”) was assessed by the proximity of the home to vegetation categorized as overgrown, dense, or unmaintained.

This attribute showed one of the largest differences between survey respondent and WiRē RA data. The majority of survey respondents (51%) reported more than 100 feet between their home and overgrown vegetation; however, the WiRē RA indicated that only 13 percent of parcels were clear of overgrown vegetation in that area. The WiRē RA indicated that, in fact, the majority (73%) had overgrown vegetation within 30 feet of the home, with 35 percent of the parcels observed to have overgrown vegetation within the 5–29-foot zone and 38 percent observed to have overgrown vegetation within five feet of the home (refer to fig. 9).

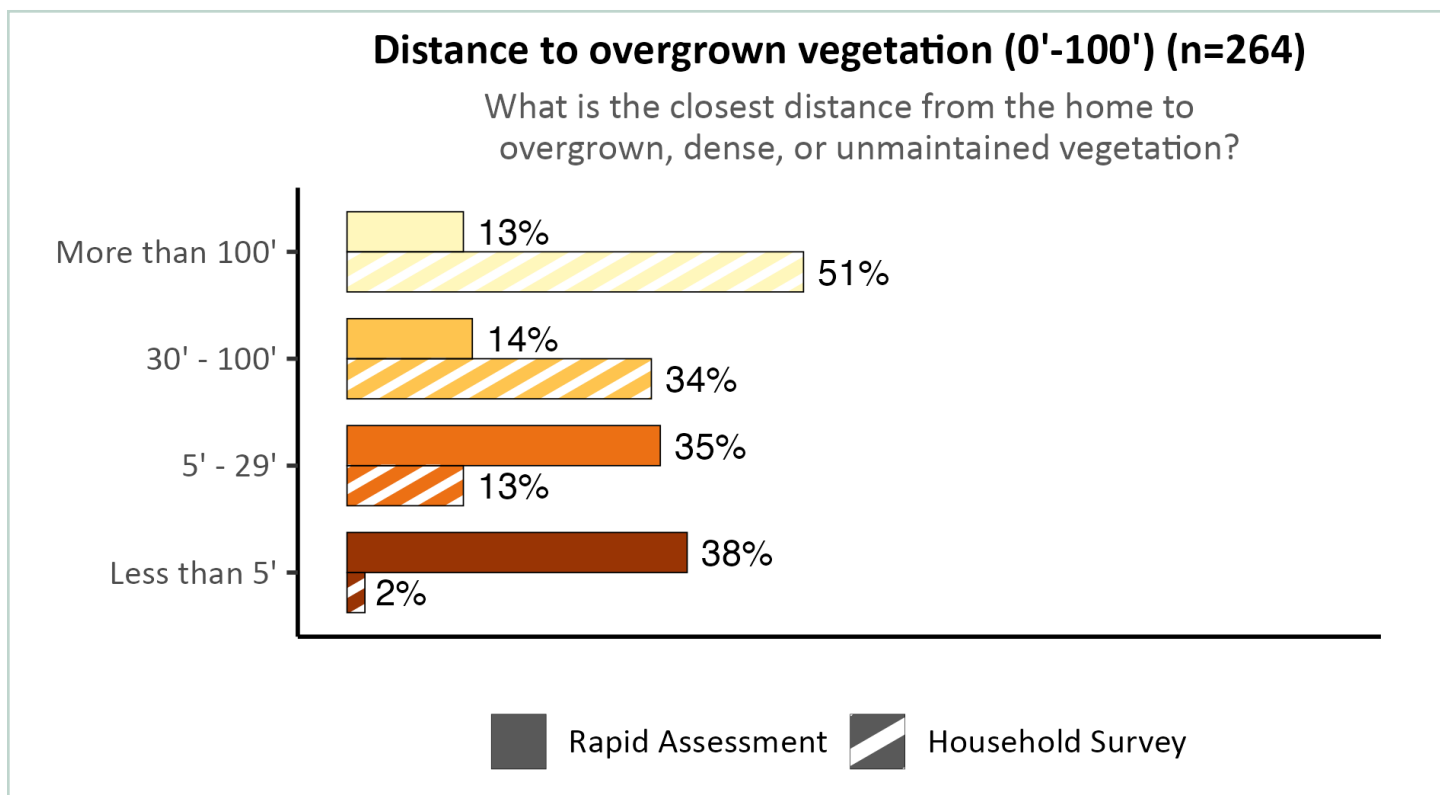


Figure 9—Distance to overgrown vegetation, categorized by distance between the home and overgrown, dense, or unmaintained vegetation. Comparison of household survey data collected in 2022–2023 as reported by survey respondents in the Montrose (and parts of Ouray) County, Colorado study area, and paired Wildfire Research (WiRē) Rapid Assessment data. N = 264 responses to this survey question.

Risk attribute: other combustibles—

In addition to vegetation, defensible space includes the presence of other combustible materials within 30 feet of the home such as lumber, firewood, hay bales, propane tanks, storage sheds, and other flammable materials.

The WiRē RA and the survey responses indicated similar portions of parcels with more than 30 feet to non-vegetative combustible items (58% and 55%, respectively). However, in the zones closer to the home, the results are notably different. Only 6 percent of survey respondents reported combustibles within five feet of the home, whereas the WiRē RA indicates that combustibles were observed within this zone for 25 percent of the homes. In contrast, it appears that survey respondents were more likely to report non-vegetative combustibles in the 5–29 foot zone (39%) than was observed through the WiRē RA (17%) (refer to fig. 10).

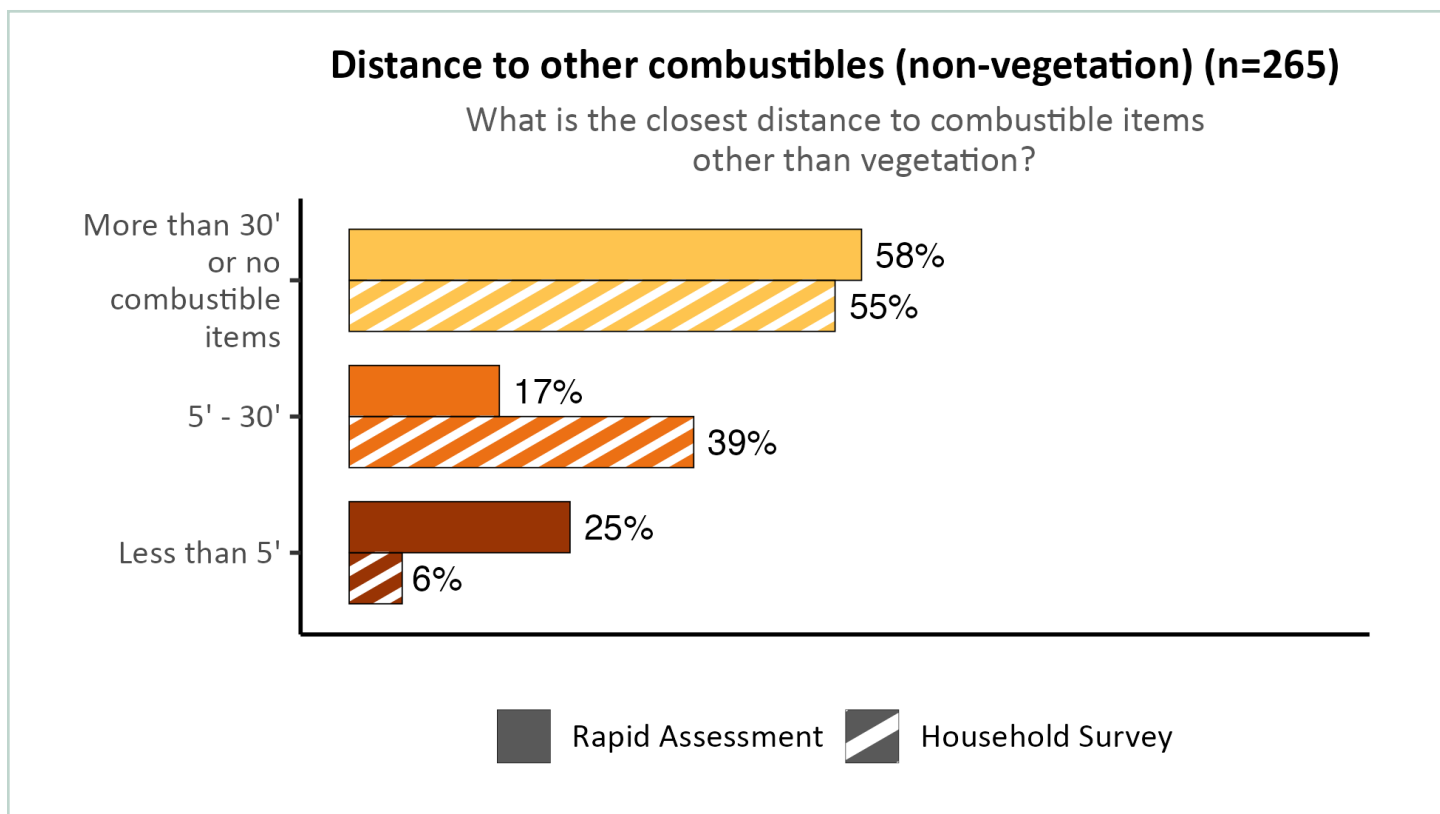


Figure 10—Other combustible materials, categorized by closest distance from home to combustible items other than vegetation. Comparison of household survey data collected in 2022–2023 as reported by survey respondents in the Montrose (and parts of Ouray) County, Colorado study area, and paired Wildfire Research (WiRē) Rapid Assessment data. N = 265 responses to this survey question.

Background conditions—

Background conditions may vary from parcel to parcel within communities, creating unique levels of risk for each home. Such conditions include dangerous topography, overall slope of the property, and the type and density of surrounding vegetation. These are further described below.

Risk attribute: distance to dangerous topography—

Wildfire behavior is influenced by topography. Features that can facilitate increased fire behavior (rate of spread, intensity, etc.) such as drainages, narrow canyons, and chimneys are considered when assessing topography. Properties are assessed into categories that measure the distance of the home to steep or dangerous topography at distances of less than 50 feet, 50 feet to 150 feet, and more than 150 feet.

Results indicate a relatively small difference between survey respondents and the WiRē RA in estimation of the distance between the home and dangerous topography. Survey respondents slightly overestimate close proximity to dangerous topography compared to the risk assessment in the 50–150 foot zone and slightly underestimate the distance in the “More than 150 foot” zone. It is possible the survey respondents observed smaller scale topographical features that may exacerbate fire that those conducting the WiRē RA were unable to observe from the roadside (refer to fig. 11).

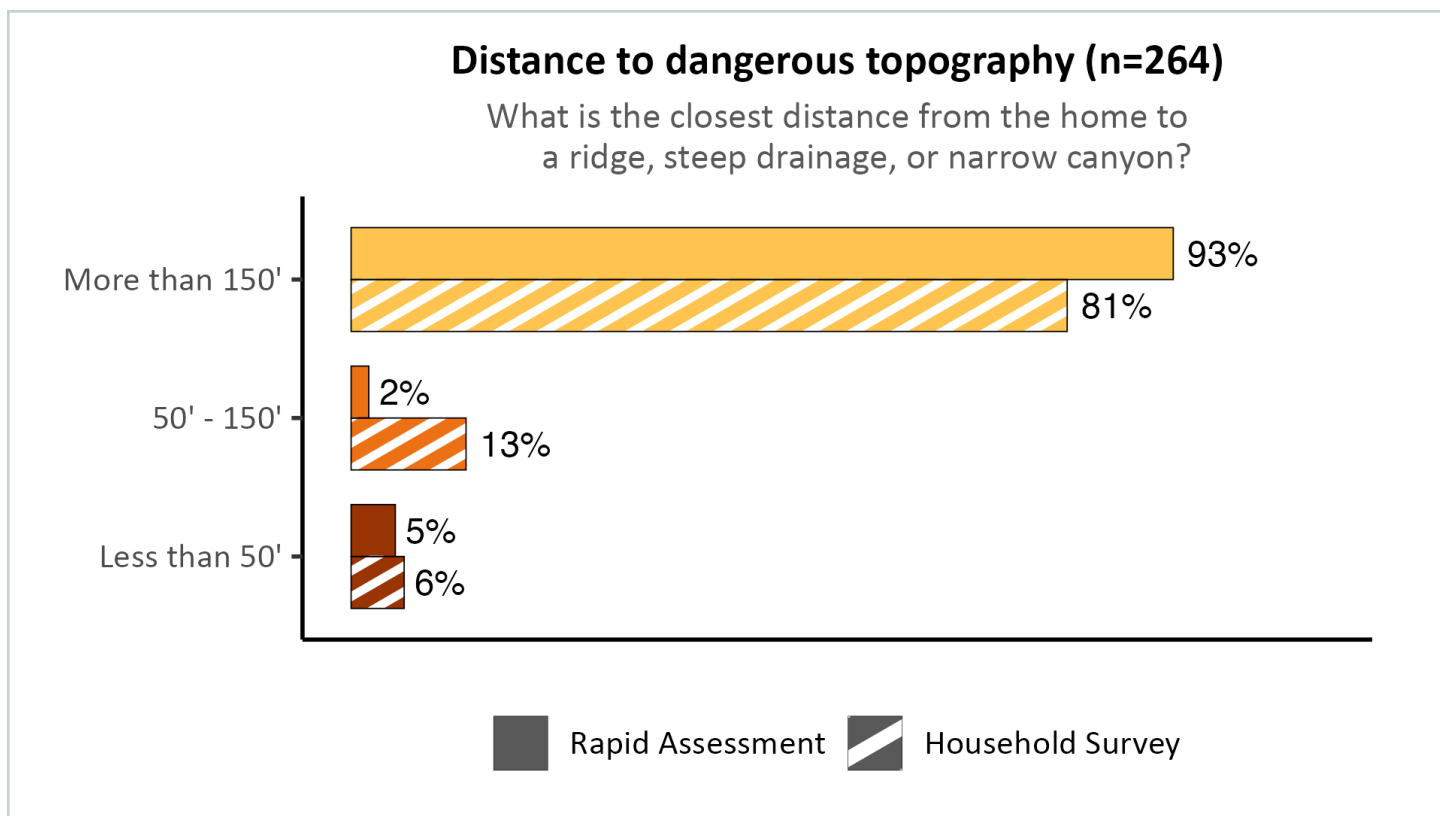


Figure 11—Closest distance from the home to dangerous topography (e.g., a ridge, steep drainage, or narrow canyon). Comparison of household survey data collected in 2022–2023 as reported by survey respondents in the Montrose (and parts of Ouray) County, Colorado study area, and paired Wildfire Research (WiRē) Rapid Assessment data. N = 264 responses to this survey question.

Risk attribute: slope—

Slope is an additional factor that influences wildfire behavior and response. For example, steep terrain can increase the rate of wildfire spread. Additionally, firefighters and their equipment may be hindered by uneven topography.

The distribution of responses from the survey respondents varied from the conditions observed through the WiRē RA with a smaller portion of survey respondents (11%) selecting the steepest slope option, greater than 45 percent, compared to the WiRē RA (15%). Likewise, a smaller portion of respondents (59%) indicated that their parcel's slope was gentle compared to the portion of parcels observed to have a gentle slope according to the WiRē RA (69%). In contrast, a larger portion of respondents (30%) selected the moderate slope response option compared to the slope observed through the WiRē RA (16%) (refer to fig. 12).

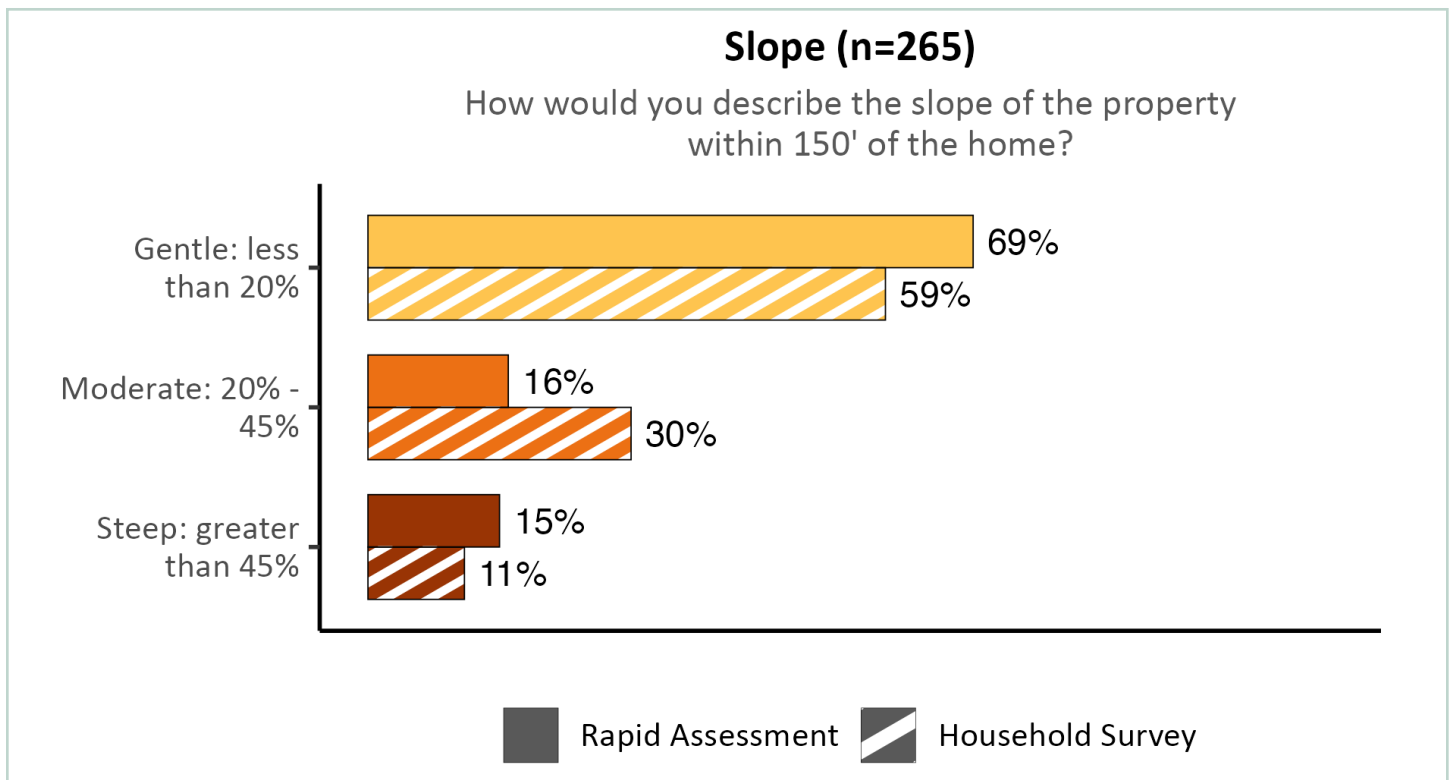


Figure 12—Overall slope of property. Comparison of household survey data collected in 2022–2023 as reported by survey respondents in the Montrose (and parts of Ouray) County, Colorado study area, and paired Wildfire Research (WiRē) Rapid Assessment data. N = 265 responses to this survey question.

Risk attribute: adjacent fuels—

Vegetation surrounding the home beyond the defensible space zone is another factor in determining wildfire behavior. Properties are assessed on the dominant vegetation type present between 100 feet and 150 feet from the home, regardless of whether this falls within the property boundary. Three categories of vegetation are used: light (grasses), medium (light brush and/or isolated trees), and dense (dense brush and/or dense trees).

There are notable apparent differences between the survey responses and the density of fuels observed through the WiRē RA. A third of the parcels (33%) were observed to have dense fuels in the 100–150 foot zone surrounding the home, while only 14% of household survey responses indicated dense fuels in this zone. Following a similar pattern, the WiRē RA indicated that half (50%) of the homes had medium fuels in this zone while a smaller portion (41%) of survey respondents indicated the same. In contrast, 45 percent of survey respondents indicated that fuels in this zone were light, only 17 percent of parcels were observed to have light fuels in this zone using the WiRē RA (refer to fig. 13).

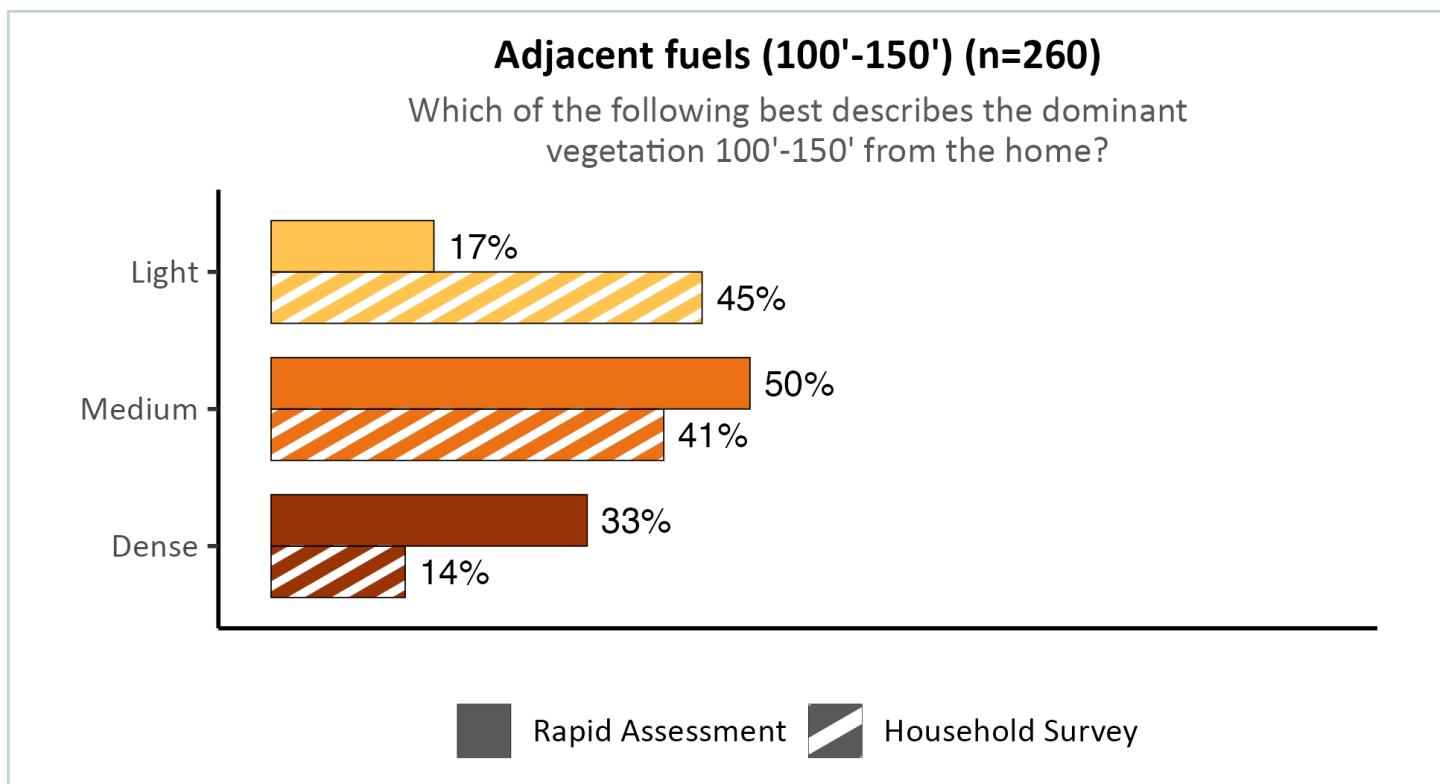


Figure 13—Adjacent fuels, categorized by the density of dominant vegetation 100 to 150 feet from the home. Comparison of household survey data collected in 2022–2023 as reported by survey respondents in the Montrose (and parts of Ouray) County, Colorado study area, and paired Wildfire Research (WiRē) Rapid Assessment data. N = 260 responses to this survey question.

Access—

During a wildfire, residents must have evacuation route options and emergency responders must be able to safely identify and access properties. The following four attributes describe access for both residents and emergency responders in terms of home identification, evacuation routes, and parcel accessibility by way of a driveway.

Risk attribute: address posting—

The visibility of home addresses in various conditions of smoke and daylight is critical for swift and safe response. Properties' addressing conditions are assessed based on local standards of signage posted at the end of the driveway. Standards further specify that address signage has four-inch numerals with a contrasting background, is reflective, and is made of noncombustible materials.

While the distribution of survey responses and WiRē RA results is similar on address posting, there is a mismatch in each category. The WiRē RA indicated that only 10 percent of parcels had address signage that fully met local standards, whereas 16 percent of household survey respondents indicated that they thought their signage complied with local standards. In contrast, 85 percent of the parcels were observed to have a visible address posting that lacked one or more of the other local standards while 70 percent of respondents indicated that they believed their address signage fell into this category. Finally, only 5 percent of parcels were

reported to have either no address signage or not visible address signage according to the WiRē RA while 13 percent of survey respondents reported the same (refer to fig. 14).

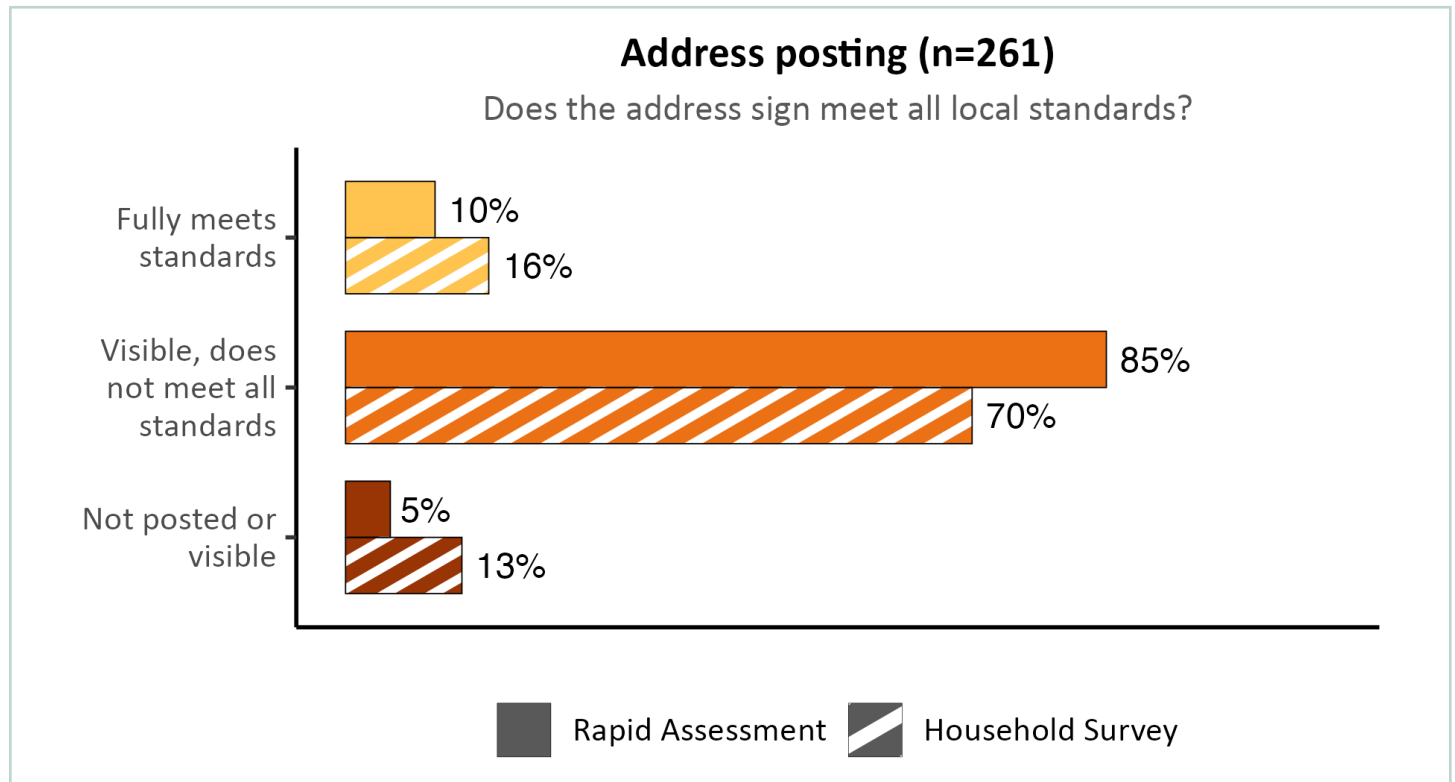


Figure 14—Characteristics of property address. Comparison of household survey data collected in 2022–2023 as reported by survey respondents in the Montrose (and parts of Ouray) County, Colorado study area, and paired Wildfire Research (WiRē) Rapid Assessment data. N = 261 responses to this survey question.

Risk attribute: evacuation routes for ingress/egress—

Resident evacuation options and safe routes for emergency responders to access properties are critical. This access is dictated by existing road systems within communities. Wildfire conditions may block evacuation routes, limiting residents' ability to safely evacuate. Thus, properties are evaluated based on having two (or more) roads in and out.

Survey respondents and the WiRē RA were aligned in their perceptions of ingress/egress routes: both data sources indicated that just over half (53%) of the parcels had two or more roads out of the community and just under half (47%) had only one road in or out (refer to fig. 15).

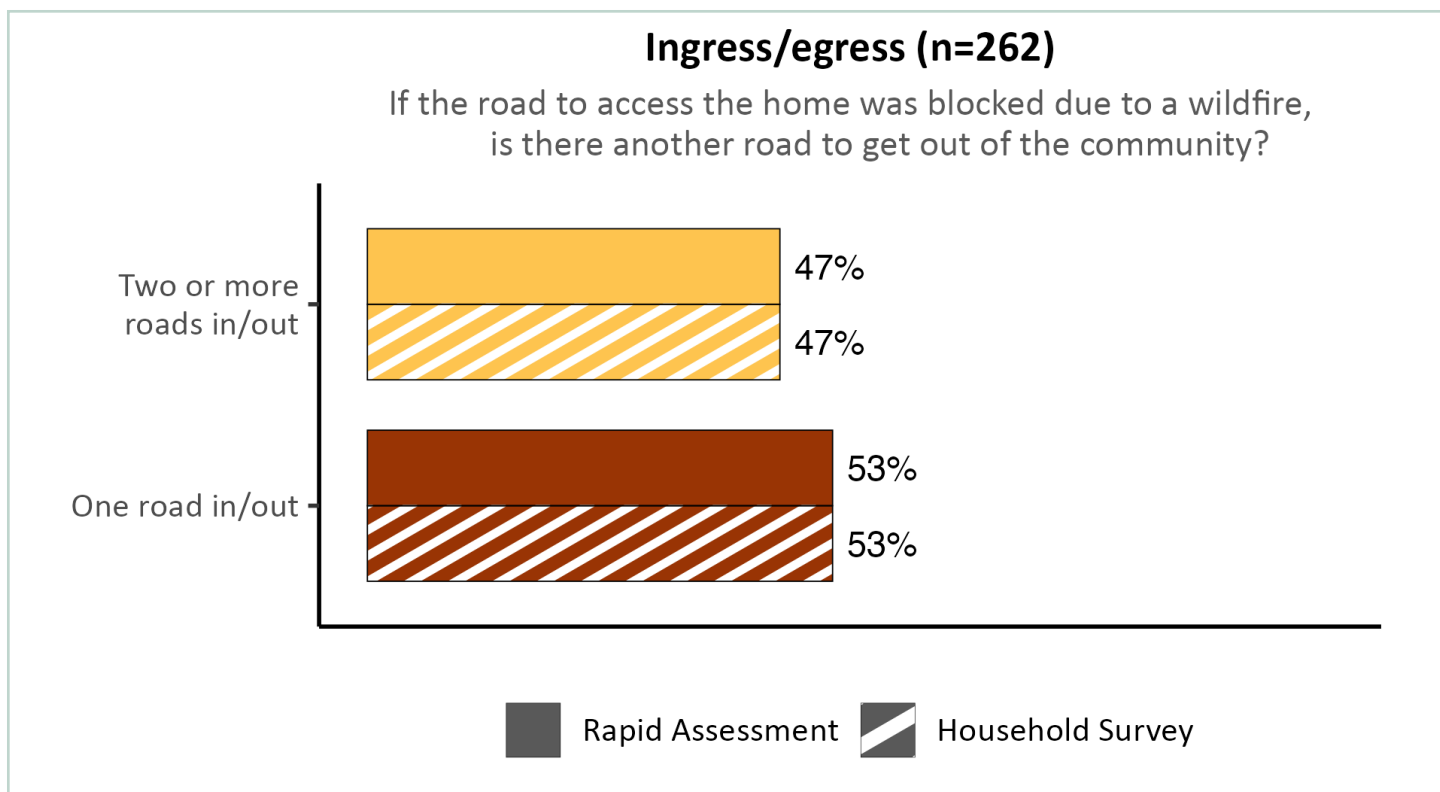


Figure 15—Number of evacuation routes in or out of community. Comparison of household survey data collected in 2022–2023 as reported by survey respondents in the Montrose (and parts of Ouray) County, Colorado study area, and paired Wildfire Research (WiRē) Rapid Assessment data. N = 262 responses to this survey question.

Risk attribute: driveway clearance—

Emergency vehicles must be able to easily access and quickly exit a property. This ability can be affected by a driveway’s width, length, and presence or lack of a turnaround, as well as narrow gates or low hanging tree branches. Driveway clearance is assessed based on height and width and is reported as meeting both standards, meeting one standard but not the other, or not meeting either standard. The standards are greater than 13.5 feet in height and 20 feet in width.

While it is common for survey respondents to underestimate their risk in comparison to WiRē RA results, the results of the driveway clearance item indicate the opposite. While the WiRē RA indicated that 88 percent of driveways met horizontal and vertical clearance standards, only 52 percent of respondents indicated that their driveways complied. Forty-two percent of respondents indicated that their driveways met one, but not both clearance standards compared to only 7 percent observed in this category based on the WiRē RA (refer to fig. 16).

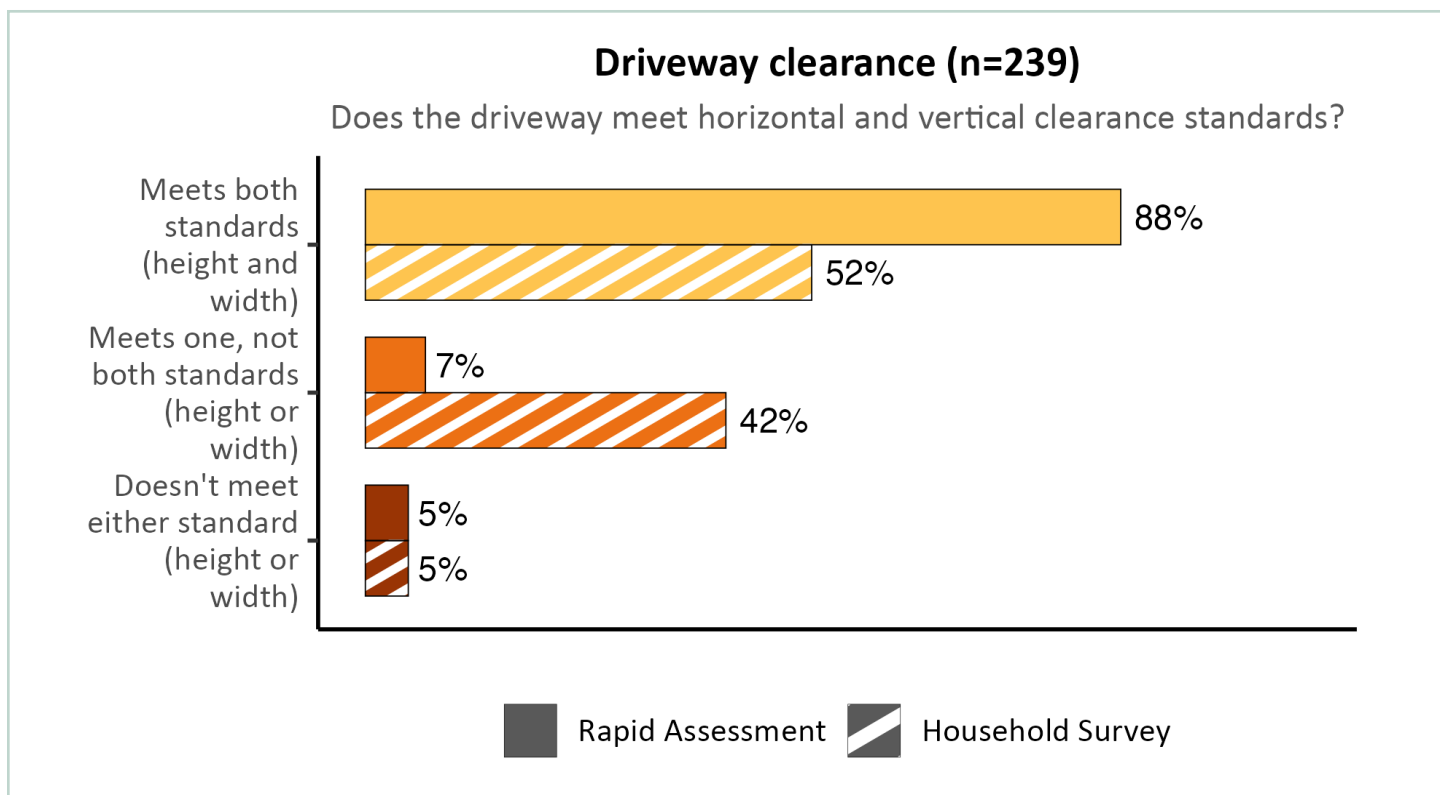


Figure 16—Width of residence driveway at its narrowest point. Comparison of household survey data collected in 2022–2023 as reported by survey respondents in the Montrose (and parts of Ouray) County, Colorado study area, and paired Wildfire Research (WiRē) Rapid Assessment data. N =239 responses to this survey question.

Risk attribute: driveway length—

Similar to driveway clearance, the length of a driveway also affects the ability of fire engines to turn around and safely respond to a wildfire. The WiRē RA distinguishes between properties with driveways that are shorter than 150 feet, driveways that are longer than 150 feet but with a turnaround suitable for a Type 1 engine, and driveways longer than 150 feet without adequate turnaround space.

A quarter (24%) of survey respondents stated that the length of their driveways was less than 150 feet compared to slightly more (31%) observed in this category through the WiRē RA. In contrast, over two thirds (67%) of respondents indicated that their driveway was 150 feet or longer with a turnaround adequate for a Type 1 fire engine while the WiRē RA indicated that slightly fewer (59%) fell in this category. Finally, the WiRē RA and survey respondents indicated a small portion of properties (10% and 9%, respectively) were more than 150 feet and lacked an adequate turnaround (refer to fig. 17).

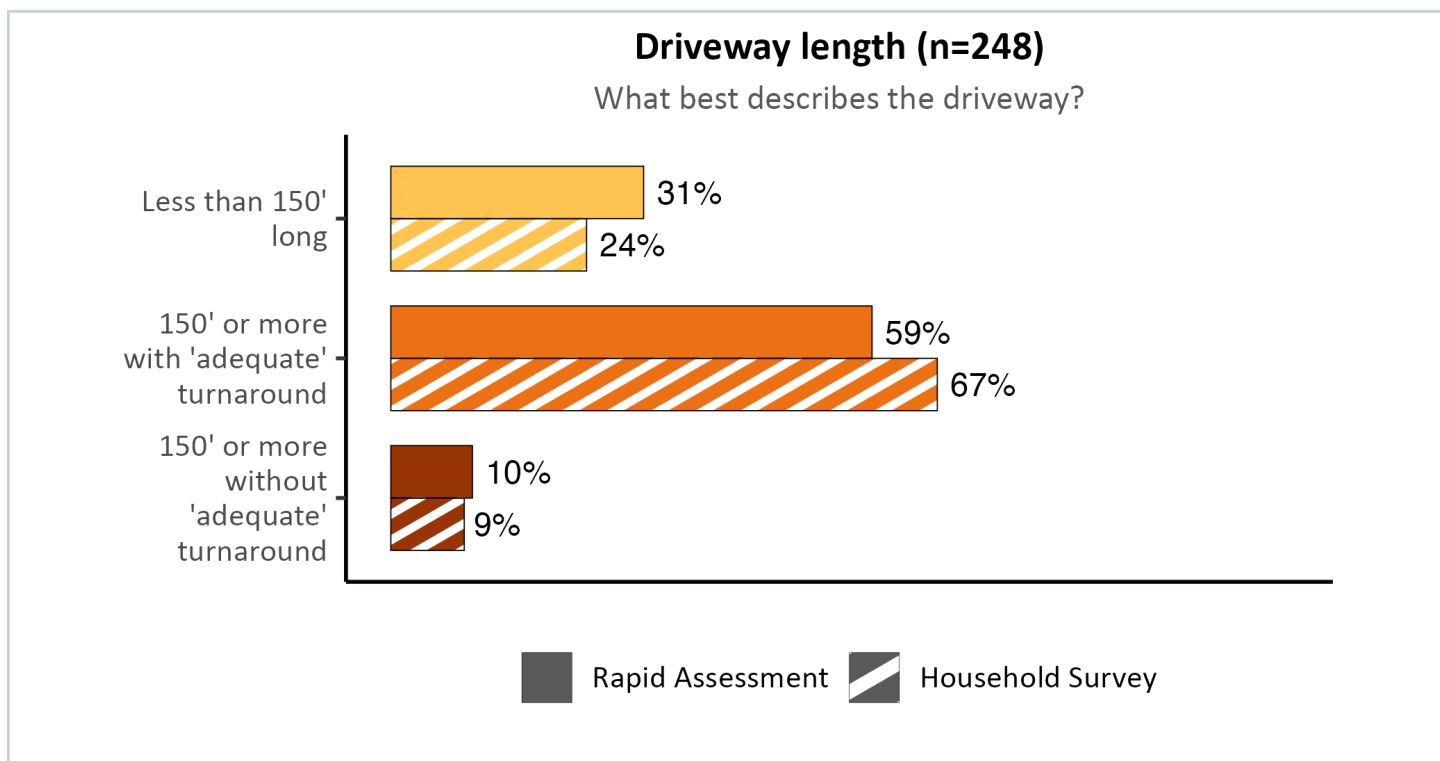


Figure 17—Driveway length and presence of turnaround. Comparison of household survey data collected in 2022–2023 as reported by survey respondents in the Montrose (and parts of Ouray) County, Colorado study area, and paired Wildfire Research (WiRē) Rapid Assessment data. N = 248 responses to this survey question.

Social Dimensions of Wildfire Risk in Montrose County: Results of the Household Survey

In this section, we present the results of the data collected from the household survey to demonstrate the social dimensions of wildfire in this unique study area (refer to Appendix E for household survey questions and responses).

Demographics

Almost all (90%) of survey respondents spend time at their homes in the Montrose study area every month of the year, with just 9 percent indicating their Montrose home is their secondary residence. The average year of construction of the homes in the study area was 1993, and the average year that survey respondents moved into their homes was 2006. At the time of purchasing their home, 49 percent of survey respondents reported being very aware of the wildfire risk, 37 percent reported being somewhat aware, and 12 percent reported being unaware of wildfire risk (refer to fig. 18).

Two thirds of survey respondents (66%) identified as male, and the average age of survey respondents was 65 years old. Sixty-three percent of survey respondents reported holding a bachelor's degree or higher. Fifty-six percent of survey respondents were retired, 32 percent worked full-time, and 8 percent worked part-time. Thirty-nine percent of households reported yearly incomes of \$100,000 or greater, 33 percent reported an annual income of \$50,000 to \$99,999, and 29 percent reporting an income of \$49,999 or less per year.

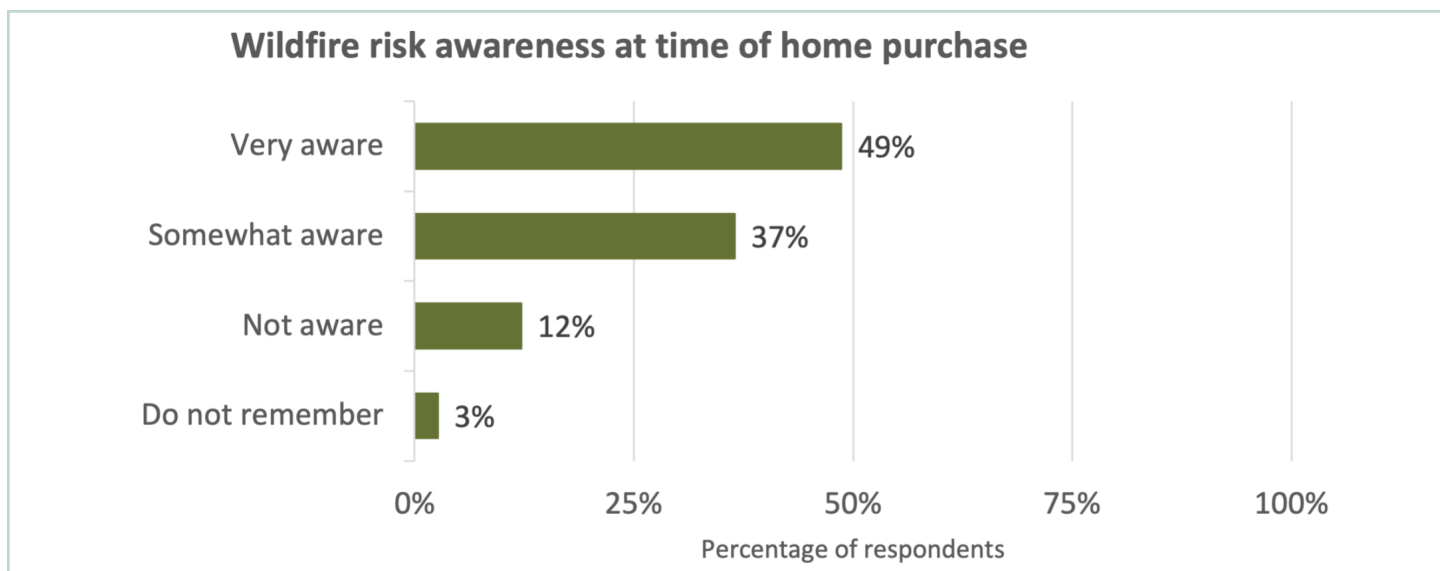


Figure 18—Respondents’ reported awareness of wildfire risk, when they bought, as reported in 2022–2023 by respondents residing in the study area in Montrose (and parts of Ouray) County, Colorado. N = 263 respondents to this survey question.

Wildfire Experience and Risk Perceptions

Wildfire experience—

Only 4 percent of survey respondents have evacuated due to wildfire in the past. Almost no respondents reported having experienced fire damage, smoke damage, or destruction of their residence due to wildfire (refer to fig. 19).

Despite few survey respondents with direct experience of wildfire on their properties, more than two-thirds (67%) reported that a wildfire had come within 10 miles from their properties (refer to fig. 20).

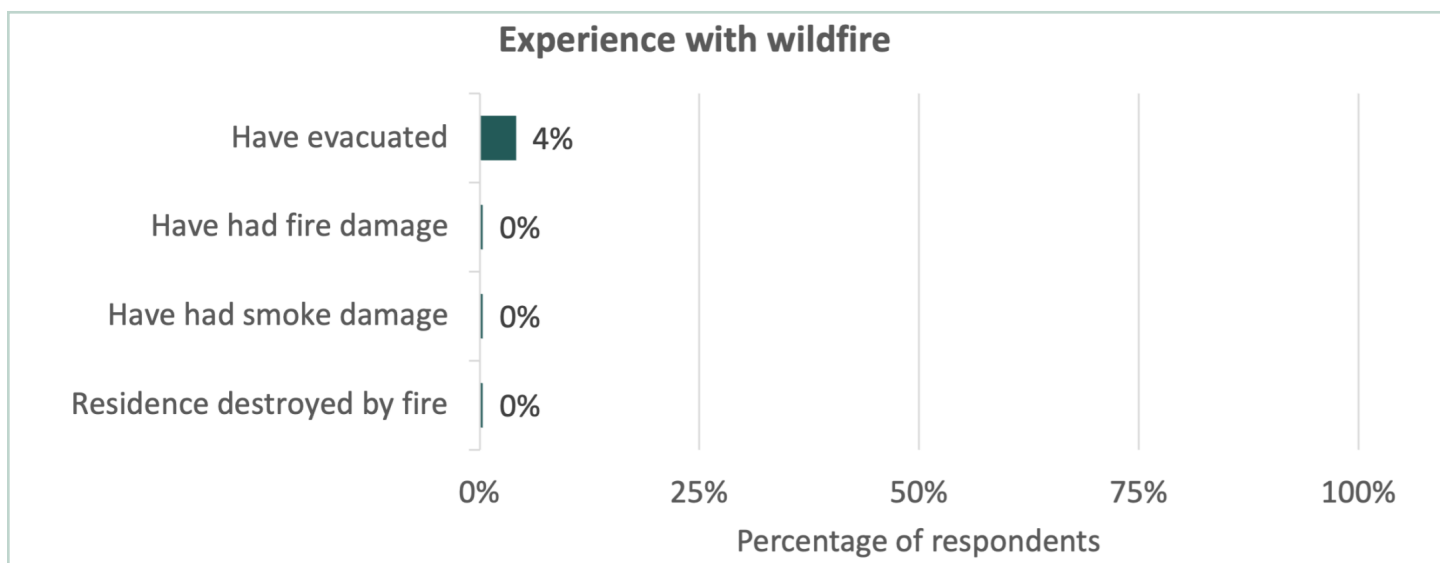


Figure 19—Respondent experience with various impacts of wildfire, as reported in 2022–2023 by respondents residing in the study area in Montrose (and parts of Ouray) County, Colorado. N = 262–265 respondents to these survey questions.

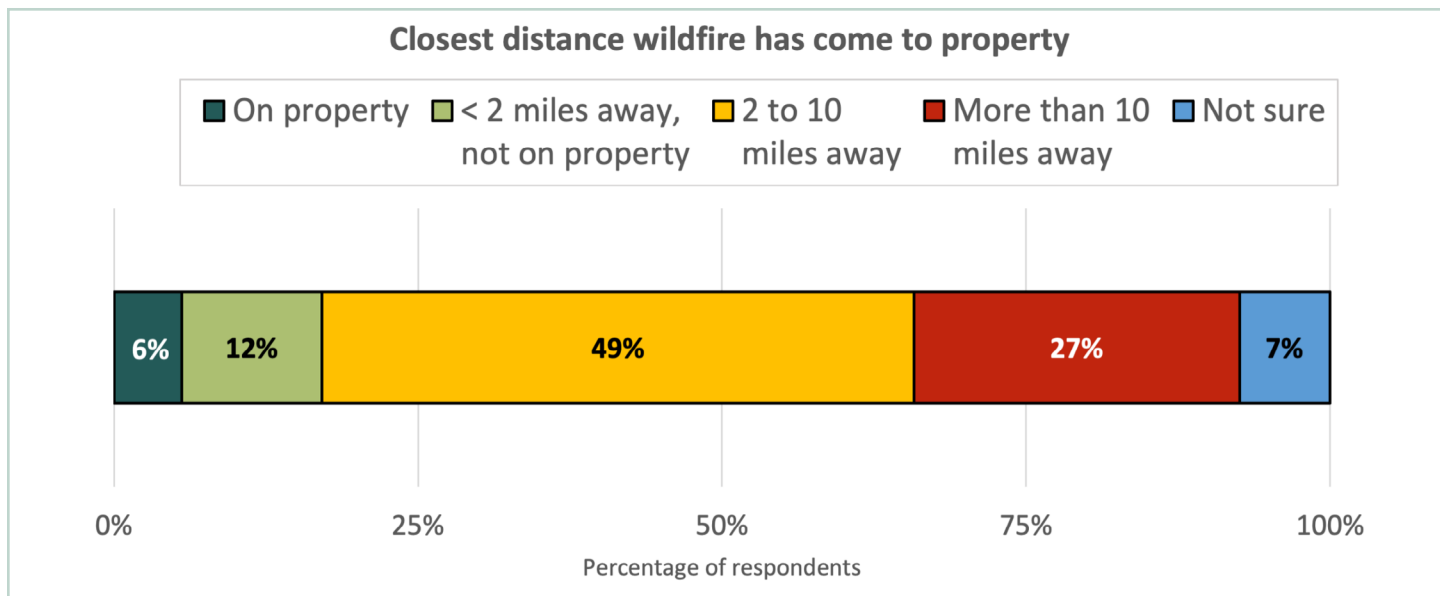


Figure 20—Respondent estimates of how close a wildfire has come to their property, as reported in 2022–2023 by respondents residing in the study area in Montrose (and parts of Ouray) County, Colorado. N = 269 respondents to this survey question.

Perceptions of risk—

Survey respondents were asked to consider the likelihood of a wildfire occurring on their property and potential outcomes in that event. Thirty-three percent agreed or strongly agreed with the statement, “My property is at risk of wildfire” (refer to fig. 21).

Despite awareness that their property is at risk of wildfire, only 10 percent of survey respondents thought it likely (greater than 50% chance) that there would be a wildfire on their property in the next year. Furthermore, if there were a wildfire on their property in the next year, less than a quarter (23%) of survey respondents thought it likely they would lose their home (refer to fig. 22).

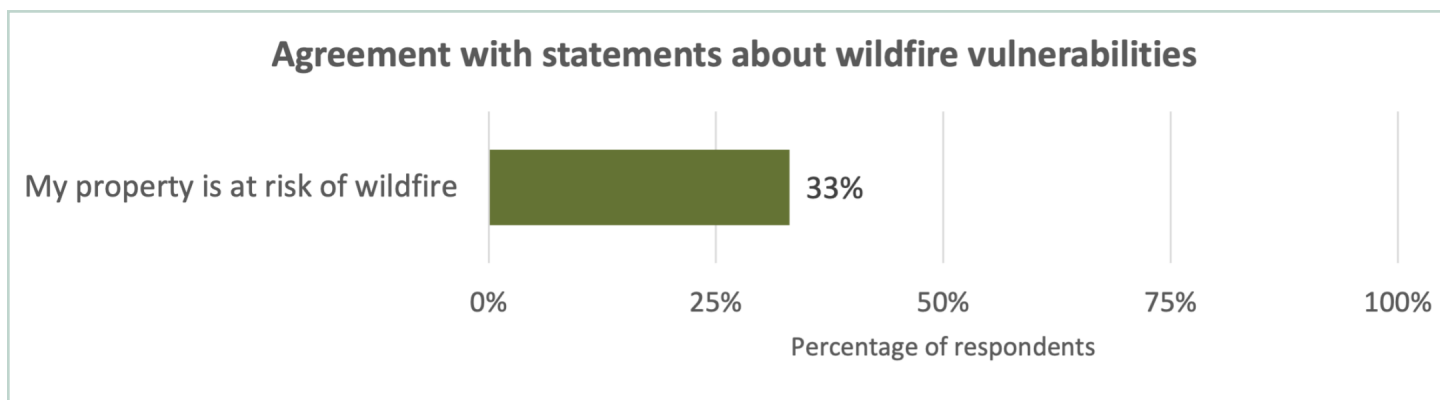


Figure 21—Agreement (“agree” or “strongly agree”) with statements about whether wildfire threatens the respondent’s property as reported in 2022–2023 by respondents residing in the study area in Montrose, Colorado. N = 260 respondents to each survey statement listed.

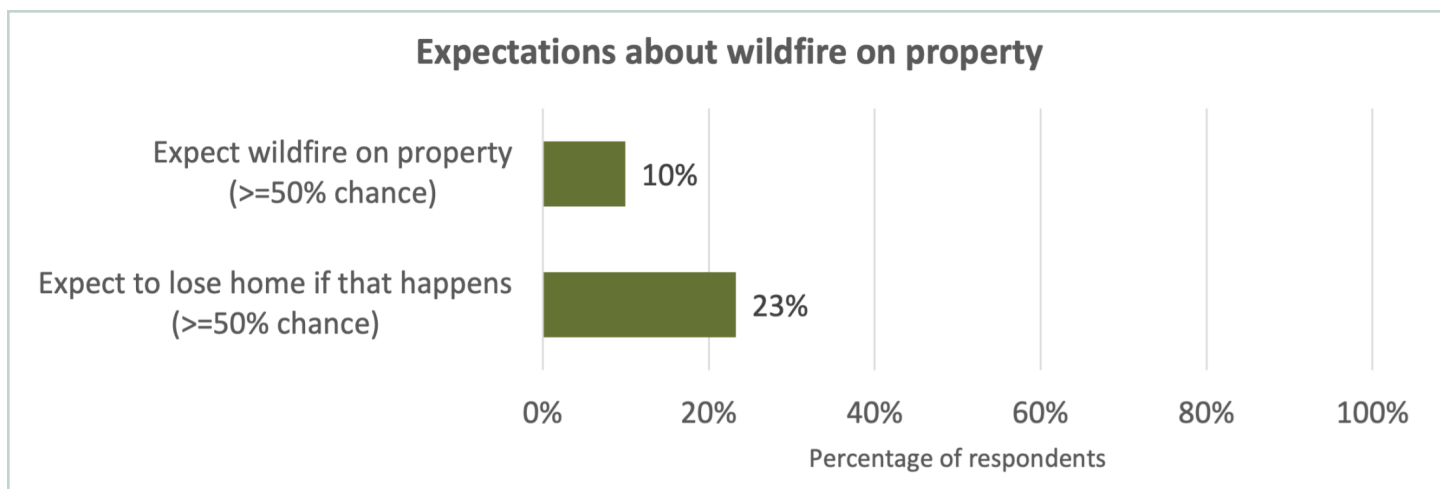


Figure 22—Estimate of the chances ($\geq 50\%$ chance) of a wildfire on property in the next year, and chances ($\geq 50\%$ chance) of losing home in that case, as reported in 2022-2023 by respondents residing in the study area in Montrose (and parts of Ouray) County, Colorado. N = 262 respondents to these survey statements.

Respondents were asked to indicate their agreement or disagreement with a broad set of statements about managing wildfire risk. Together, the responses indicate that the vast majority of respondents do not agree with common assumptions about residents in fire prone communities. Only a small portion strongly agreed or agreed that homeowners' actions to reduce wildfire risk are not effective (3%), that firefighters should put their lives at risk to protect their home (5%), that they live in their place for the trees and will not remove them to reduce wildfire risk (5%), or that managing wildfire danger is a government responsibility and not theirs (6%). Only 12 percent indicated they strongly agreed or agreed that their own mitigation action would not be effective because of heavy vegetation on their neighbors' properties. Notably, just over a quarter (26%) strongly agreed or agreed that development in fire-prone areas of the study area increased their risk (refer to fig 23).

When asked to consider who would protect their home in the event of a wildfire, few survey respondents (41%) thought it was very or extremely likely that the fire department would save their home while a third of respondents (32%) thought it very or extremely likely that they would put the fire out themselves (refer to fig. 24).

In terms of outcomes, 35% of survey respondents reported that, in the event of a wildfire on their property, it was very or extremely likely that their trees and landscape would burn, and 31 percent reported it was very or extremely likely that there would be smoke damage to their homes. Twenty-three percent thought it very or extremely likely that there would be some physical damage to their homes. Notably, more respondents thought it was very or extremely likely their neighbors' homes would be damaged or destroyed (19%) than thought their own home would be destroyed (9%), or they would lose money due to loss of business or income (15%) (refer to fig. 25).

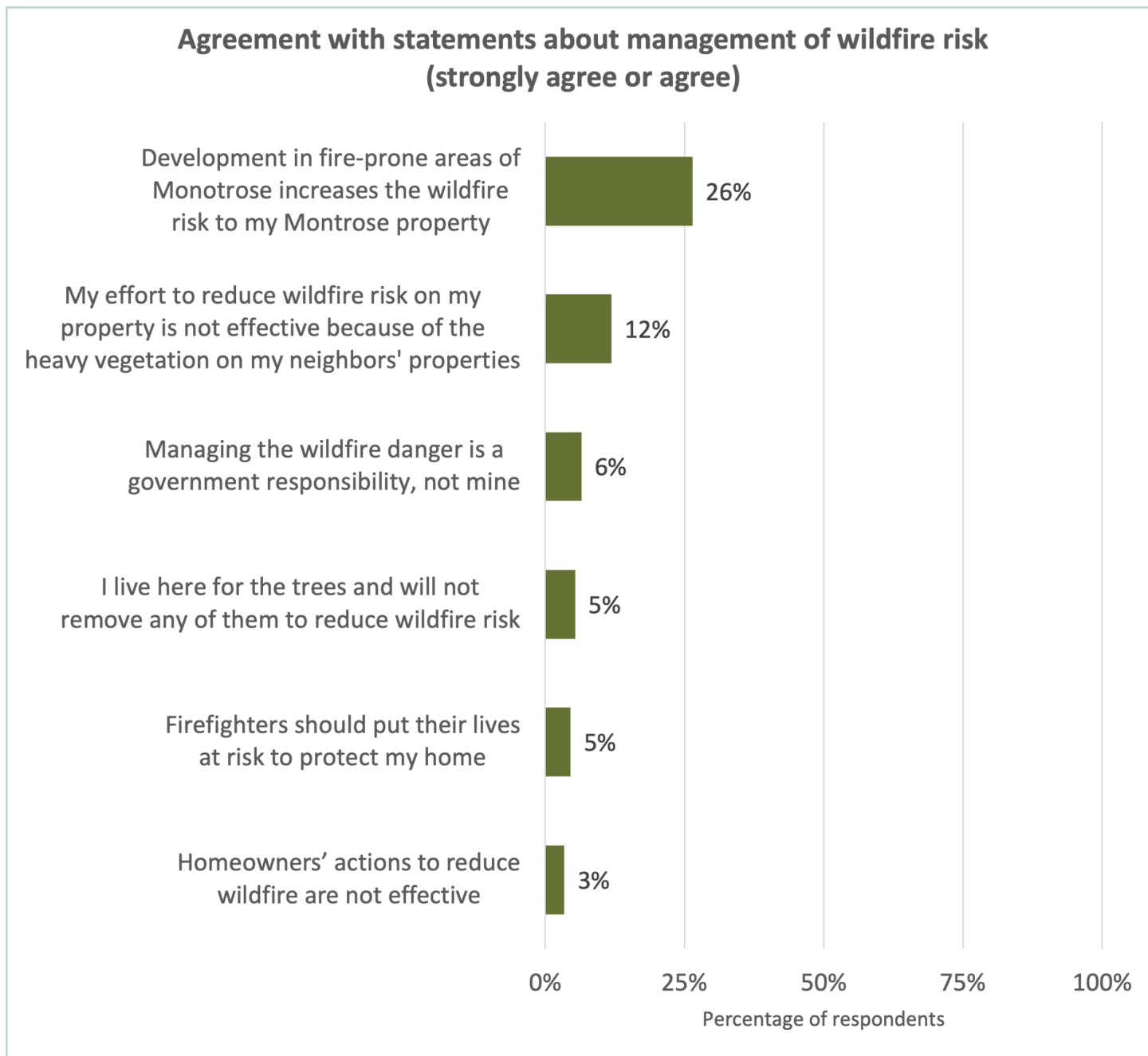


Figure 23—Agreement (“agree” or “strongly agree”) with statements about management of wildfire risk, as reported in 2022-2023 by respondents residing in the study area in Montrose (and parts of Ouray) County, Colorado. N = 260-262 respondents to each survey statement listed.

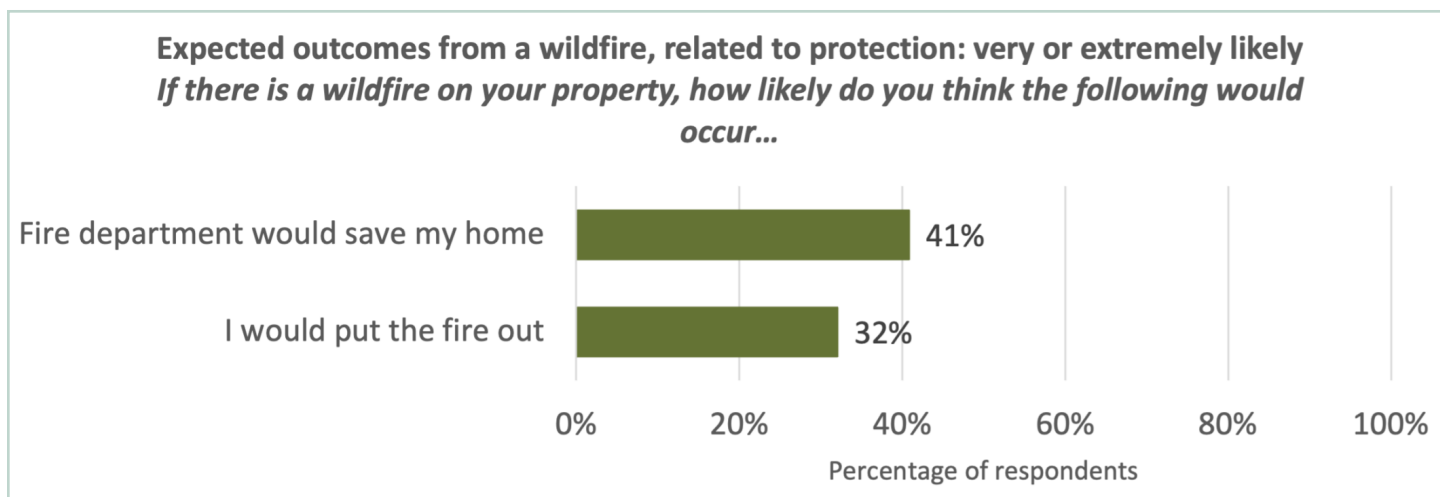


Figure 24—Percentage of respondents who thought it was very or extremely likely that, in the event of a wildfire on their property, the fire department would save their home, or they would put out the fire, as reported in 2022–2023 by respondents residing in the study area in Montrose (and parts of Ouray) County, Colorado. N = 257–259 respondents to each survey statement listed.

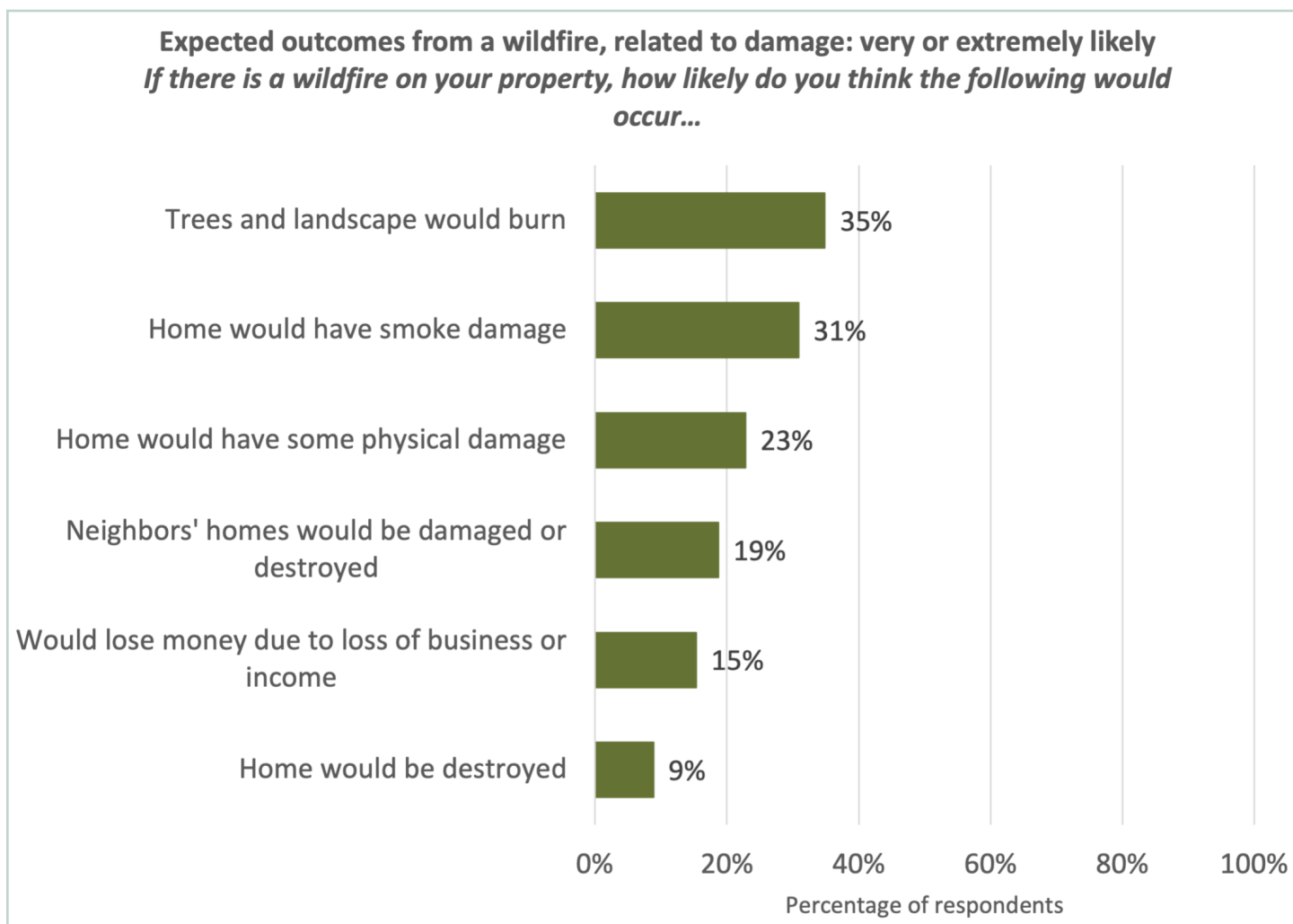


Figure 25—Percentage of respondents who thought the above forms of wildfire damage were very or extremely likely, in the event of a wildfire on their property, as reported in 2022–2023 by respondents residing in the study area in Montrose (and parts of Ouray) County, Colorado. N = 257–264 respondents to each survey statement listed.

Survey respondents indicated their understandings of the physical mechanisms of home ignition. A fifth of respondents thought there was a high likelihood of direct flame (20%) while fewer thought there was a high likelihood that ignition would be caused by embers (19%), and only 4 percent thought there was a high likelihood that nearby homes would ignite their home, in the event of a wildfire on their property (refer to fig. 26).

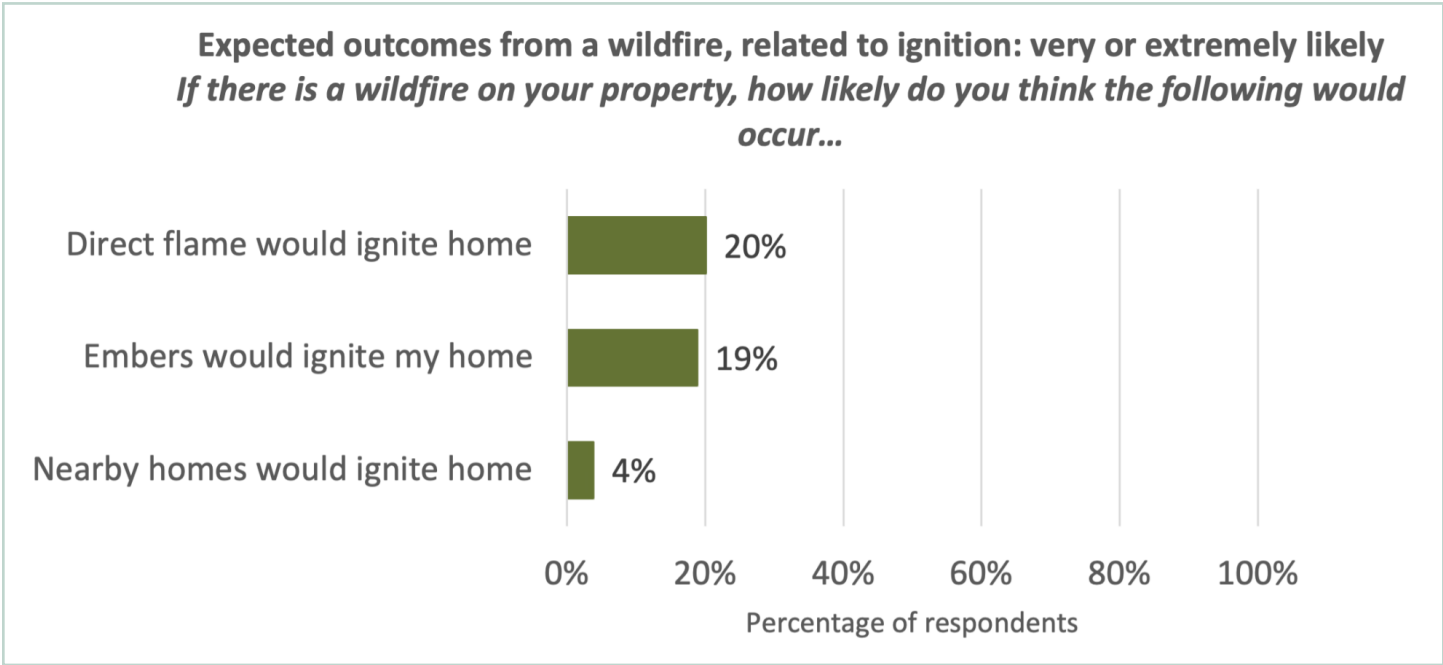


Figure 26—Percentage of respondents who thought different sources of ignition (direct flame, embers, nearby homes) were very or extremely likely, in the event of a wildfire on their property, as reported in 2022–2023 by respondents residing in the study area in Montrose (and parts of Ouray) County, Colorado. N = 259–260 respondents to each survey statement listed.

Communication About Wildfire Risk

This section summarizes survey responses related to different forms of communication about wildfire risk, including via private channels such as conversations with neighbors or interactions with insurance companies. It also describes currently used and preferred sources of wildfire risk information and preferred channels (e.g., e-newsletter, radio, in person) for receiving wildfire risk information.

Communication with neighbors and insurance—

Less than half (43%) of survey respondents reported talking to their neighbors about wildfire (refer to fig. 27). Such interactions can serve to help spread information about localized risk of wildfire. Half of survey respondents (50%) reported that some of their neighbors have taken action to mitigate wildfire risk. Furthermore, 6 percent reported that all of their neighbors had taken action and 20 percent reported that most of their neighbors had taken action. Notably, nearly a quarter (24%) of survey respondents reported that none of their neighbors had taken action to mitigate wildfire risk (refer to fig. 28).

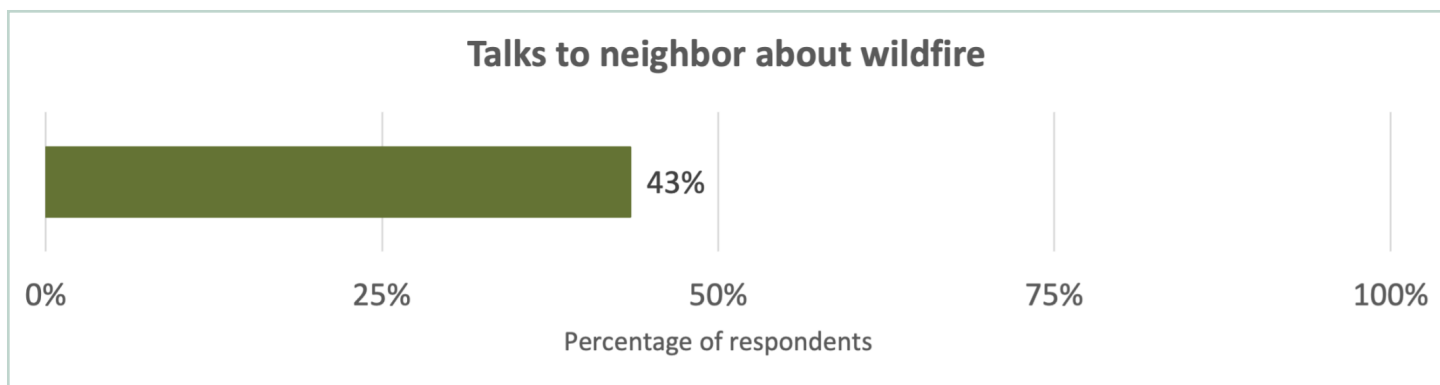


Figure 27—Percentage of respondents residing in the study area in Montrose (and parts of Ouray) County, Colorado, who reported in 2022–2023 talking to their neighbor about wildfire. N = 267 respondents to this survey question.

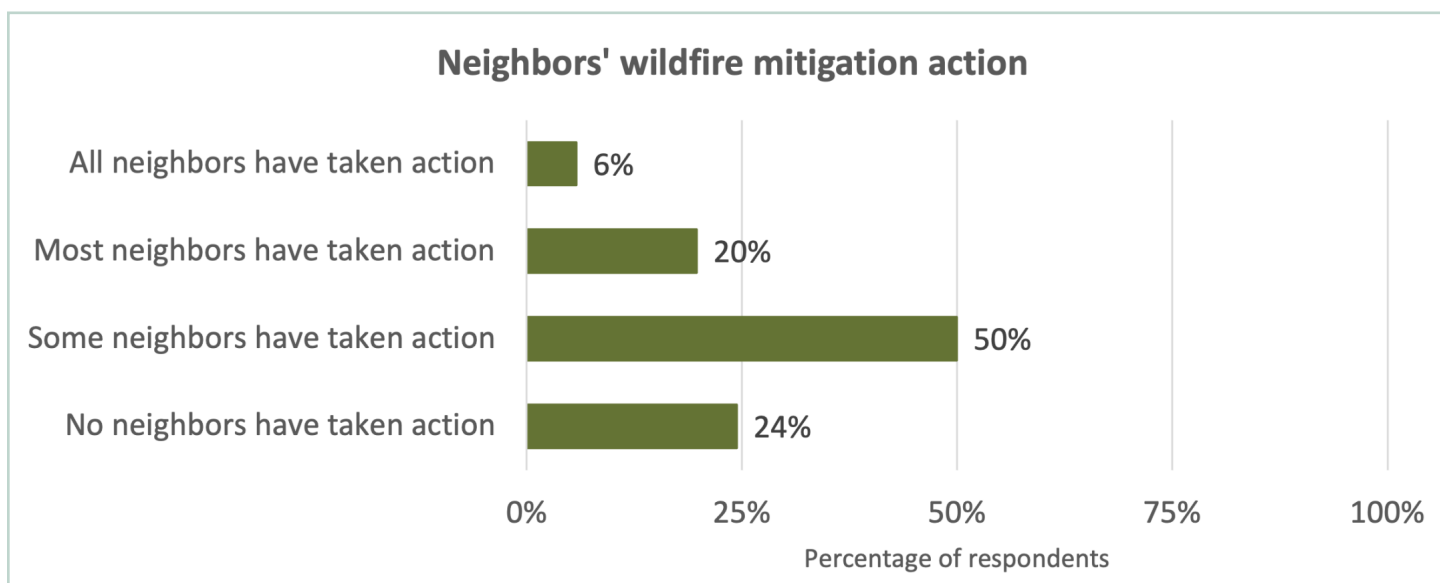


Figure 28—Respondents' estimates of how many neighbors take wildfire mitigation action, as reported in 2022–2023 by respondents residing in the study area in Montrose (and parts of Ouray) County, Colorado. N = 258 respondents to this survey question.

While insurance providers could shape homeowner knowledge and perceptions of wildfire risk and motivate performance of mitigation activities, few survey respondents reported interactions with their insurance companies. Over half (58%) of survey respondents reported that their home was adequately insured against loss from wildfire. A fifth of respondents (21%) received information about wildfire risk reduction from their insurance company, but few respondents reported that their insurance company charged them higher premiums due to wildfire risk (10%), refused them insurance on grounds of wildfire risk (8%), required them to mitigate wildfire risk (3%), or provided a discount because of mitigation action (2%). Three percent of respondents indicated that their insurance provider offered them private firefighting services (3%) (refer to fig. 29).

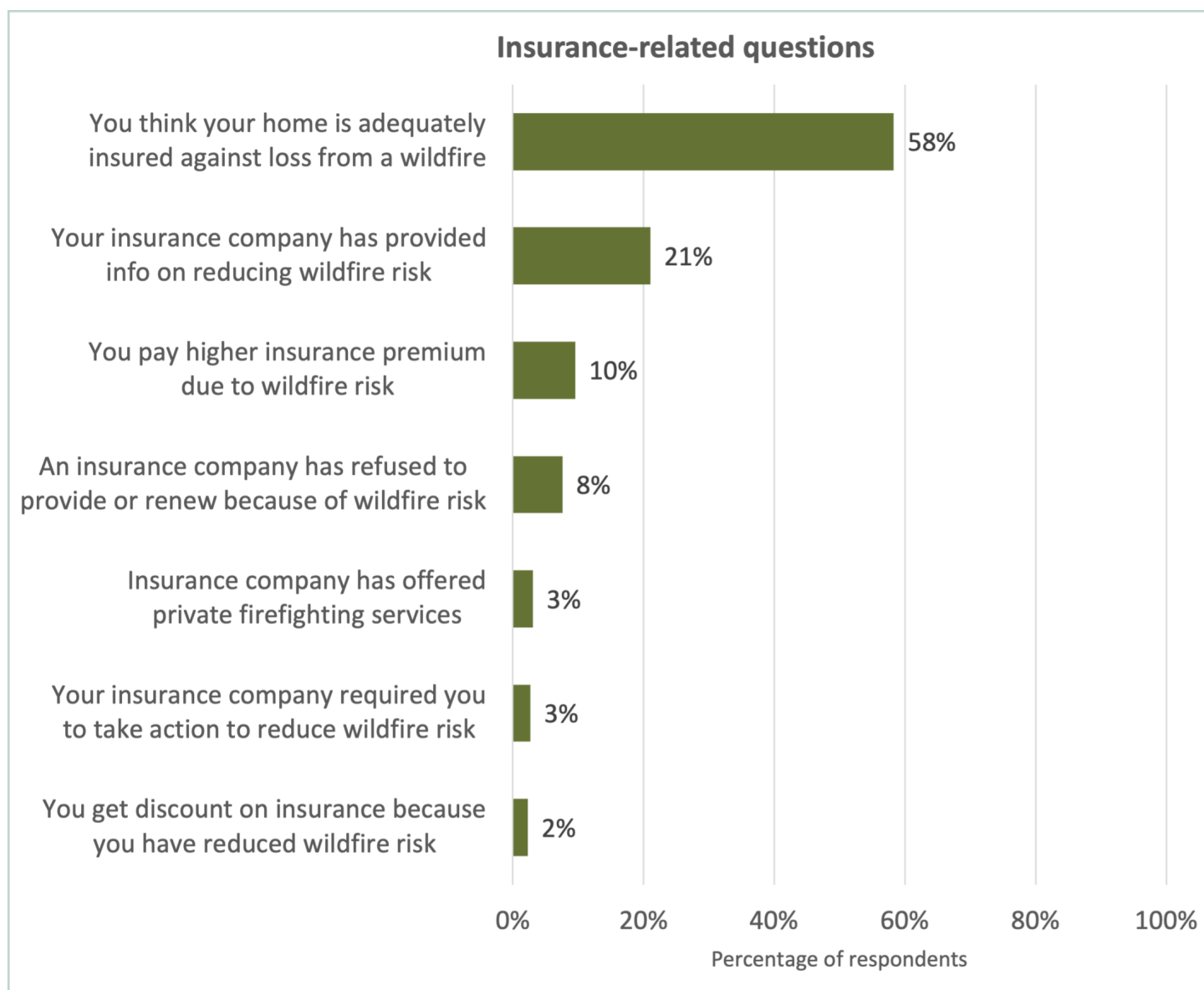


Figure 29—Respondents’ knowledge of and experience with various insurance company actions, as reported in 2022–2023 by respondents residing in the study area in Montrose (and parts of Ouray) County, Colorado. N = 259–262 respondents to each statement.

Sources of information and reported usefulness—

Survey respondents were asked to report on whether they had received information from a variety of sources and to evaluate the usefulness of each of the sources they had used. In general, less than half of respondents reported receiving information from each of the sources listed. There were many sources of information available, but most of them reached less than a quarter of respondents. The most useful sources that reached the most respondents were the West Region Wildfire Council (26%) and 64 percent of those who received information reported it as extremely or very useful. Likewise, 24 percent of respondents reported receiving information from the local fire department and 57 percent of those deemed the information extremely or very useful. Fewer received information from the Montrose Office of Emergency Management (17%), Federal agencies—Bureau of Land Management (16%) and Forest Service (15%), and State sources (Colorado State Forest Service (14%). While media was

the most common source (46%), it was among the lowest ranked in usefulness with only 26 percent reporting extremely or very useful information (refer to fig. 30).

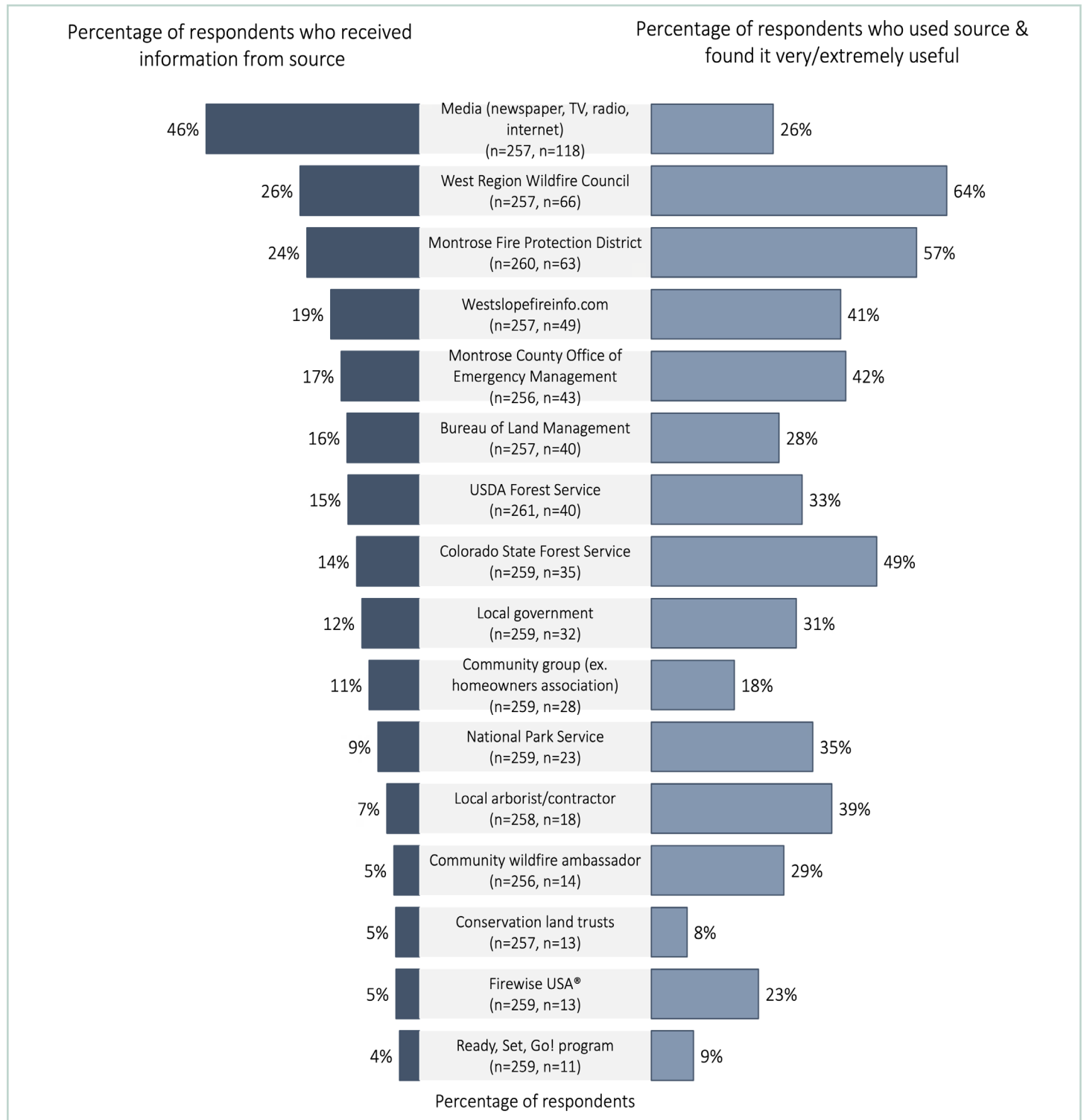


Figure 30—Percentage of respondents who received wildfire risk information, by source, as reported in 2022–2023 by respondents residing in the study area in Montrose (and parts of Ouray) County, Colorado. These data are compared to the percentage of people who said they found each source’s wildfire risk information very or extremely useful (percentage of all respondents who received wildfire risk information from that particular source). N = 256–261 respondents to source receipt questions; N = 11–118 respondents to source usefulness questions. USDA–U.S. Department of Agriculture.

Current and preferred channels of communication—

There are many different channels by which information about wildfire may be distributed. We asked participants about the forms in which they currently receive wildfire-related information, as well as how they would prefer to receive this information. In general, there were three channels through which a significant amount of survey respondents reported receiving wildfire information. The common communication channels reported were radio, TV news, and newspaper (30%, 23%, and 22% respectively), while the most preferred communication channels were mailed newsletter (48%) and email/e-newsletter (41%). Thirty-three percent indicated preferring in-person interactions and twenty-two percent indicated preferring community meetings. For these channels of communication, more participants reported wanting to receive information than reported currently receiving information (refer to fig. 31).

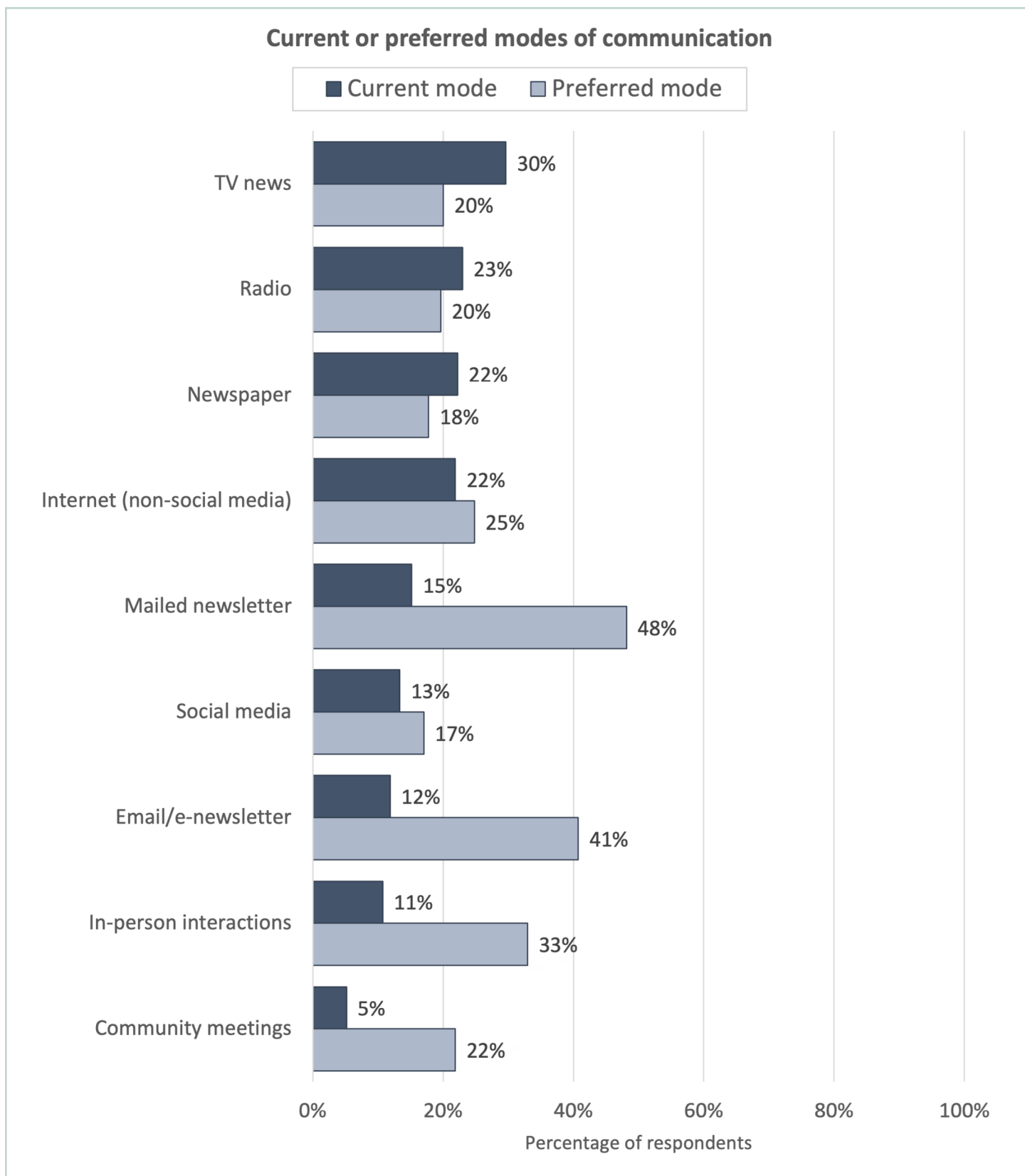


Figure 31—Comparison of current and preferred modes of communication about wildfire risk, ordered by current modes of communication, as reported in 2022–2023 by respondents residing in the study area in Montrose (and parts of Ouray) County, Colorado. Survey respondents were able to select multiple options. N = 270 respondents to current modes; N = 270 respondents to preferred modes.

Mitigation and preparedness activities—

Evacuation planning—

Evacuation planning is an important step in wildfire preparedness, and most survey respondents appear to have completed some planning. Three-quarters of survey respondents (67%) reported having evacuation plans for the people in their household (refer to fig. 32a). Of the survey respondents with pets, 63 percent had a plan for their pets (refer to fig. 32b). Of the survey respondents with livestock, 39 percent had a plan for their livestock (refer to fig. 32c).

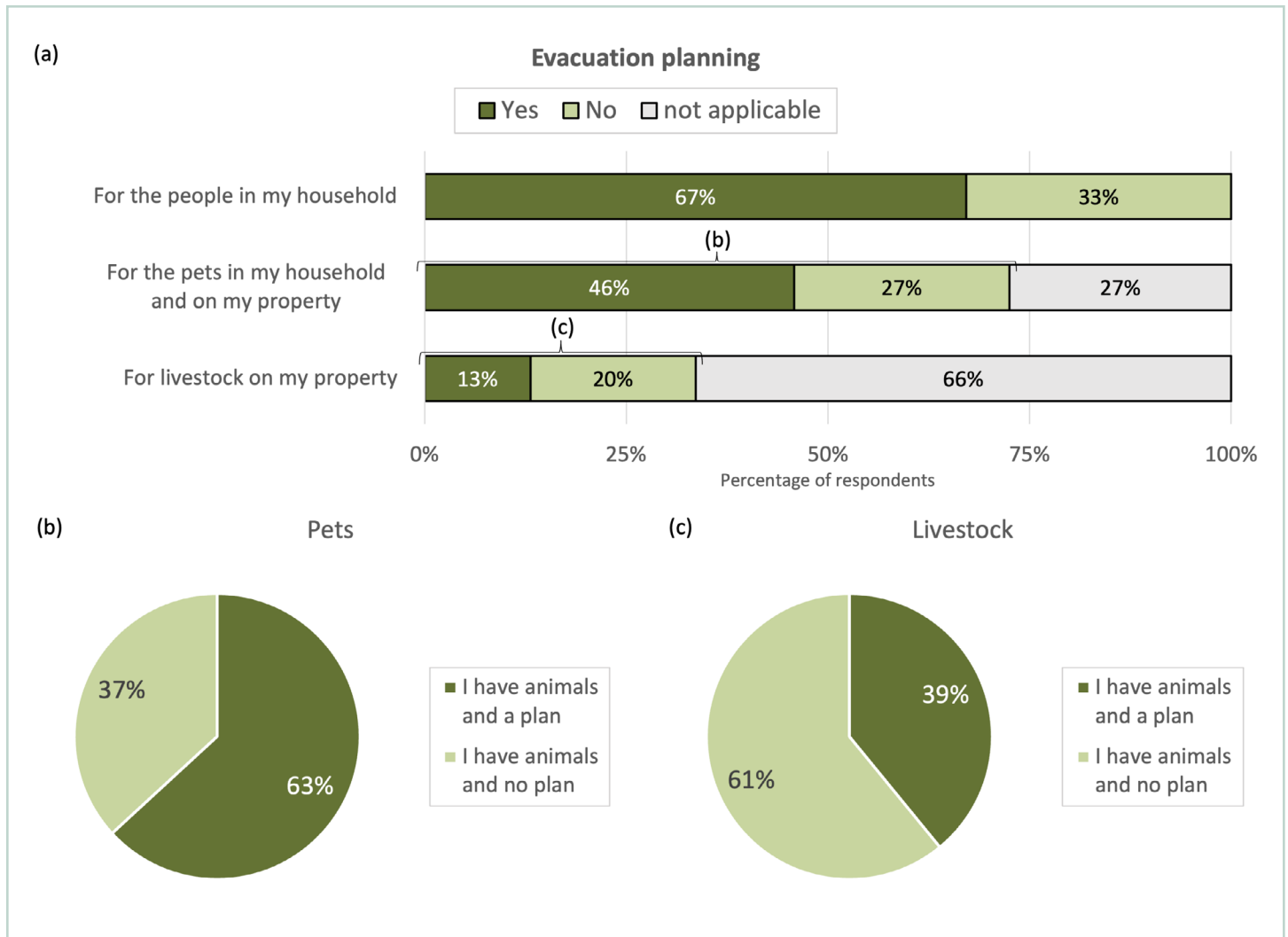


Figure 32—(a) Percentage of survey respondents who report having wildfire evacuation plans for people in the household and for pets and livestock, out of all responses to this question (N = 259–262). (b) Of respondents with pets, percentage who have a wildfire evacuation plan for their pet (N = 190). (c) Of respondents with livestock, percentage of have a wildfire evacuation plan for their livestock (N = 87). Data as reported in 2022–2023 by survey respondents residing in the Montrose (and parts of Ouray) County, Colorado study area.

Respondents were asked to think through the actions regarding evacuation they have completed, as well as to identify topics about which they would like more information. Around half of respondents indicated that they had identified safe evacuation routes (56%), identified where to stay long-term (51%), identified where to evacuate to (50%), and identified what to take and what to leave behind (50%). Notably, for each of these actions, a fifth to a

quarter (21%–26%) of respondents indicated wanting more information about these steps, indicating community interest in additional evacuation preparedness information. Further, although 67 percent of survey respondents reported having an evacuation plan, survey responses indicate that those evacuation plans could be further developed. Notably, only 36 percent of respondents have signed up for the emergency notification, a crucial wildfire preparedness step. The same portion of respondents (37%) want more information about signing up for emergency notification, possibly indicating the need to educate respondents not just about how to sign up but why it is important to do so. Responses to other evacuation actions in this question followed a general trend of having been completed by a moderate number of respondents, with a smaller percentage requesting more information about the action (refer to fig. 33).

Wildfire risk mitigation—

Despite thinking personal wildfire-related property damage is unlikely (fig. 25), survey responses indicate recognition of major sources of wildfire risk. Most respondents (64%) identified vegetation on public or undeveloped lands and vegetation on their property (62%) as major contributors to the chances of wildfire damaging their property in the next year, followed by lack of nearby water supply for fire suppression (61%). Over half (57%) identified vegetation on their neighbors' properties as a major contributor. The factor respondents thought least likely to contribute to property damage was the physical characteristics of the home or other buildings on the property (refer to fig. 34).

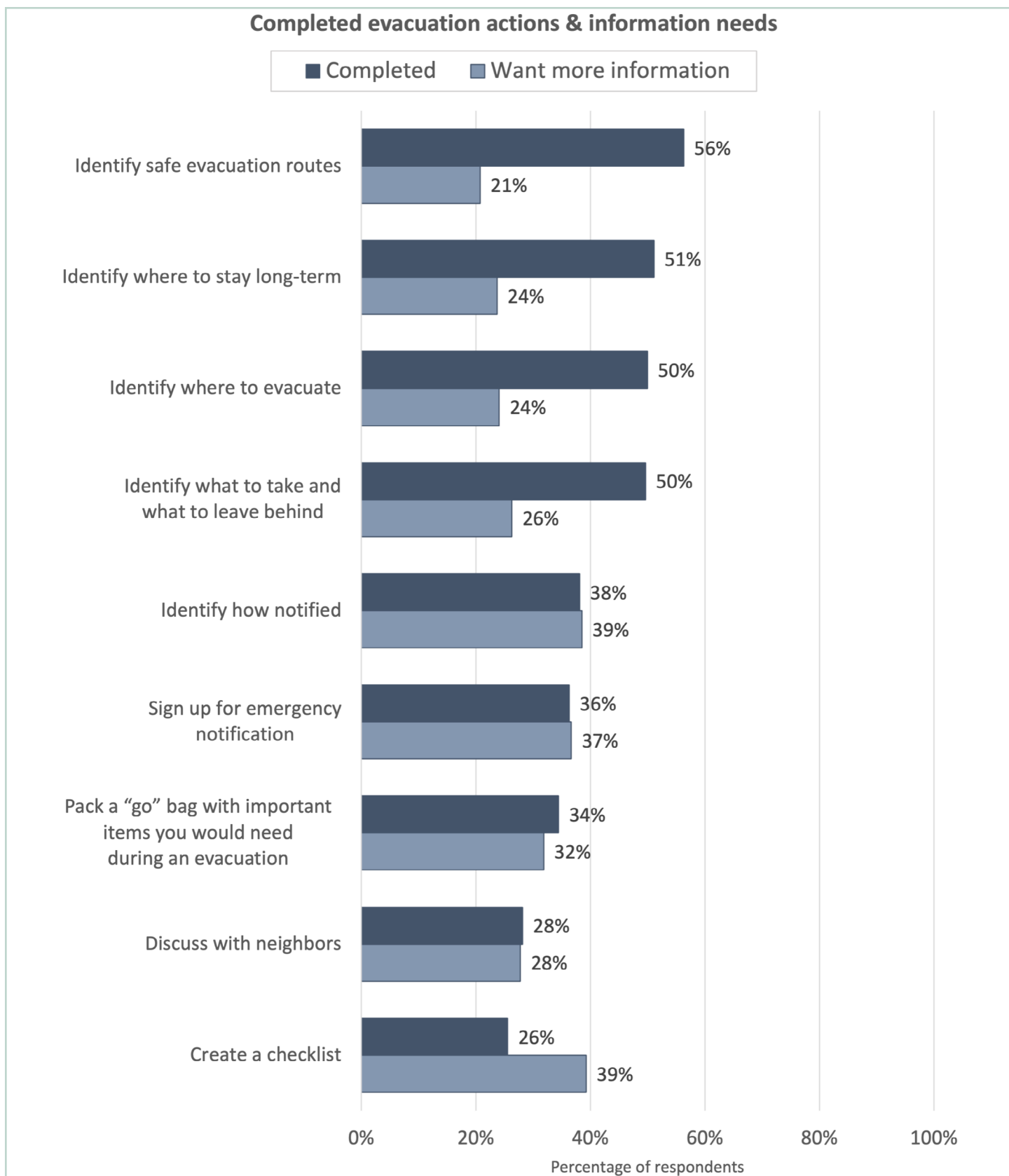


Figure 33—Evacuation preparations completed and information that would be helpful in evacuation plan development, ordered by actions completed, as reported in 2022-2023 by respondents residing in the study area in Montrose (and parts of Ouray) County, Colorado. N = 270 respondents to completed action segment. N = 270 respondents to wanting more information segment.

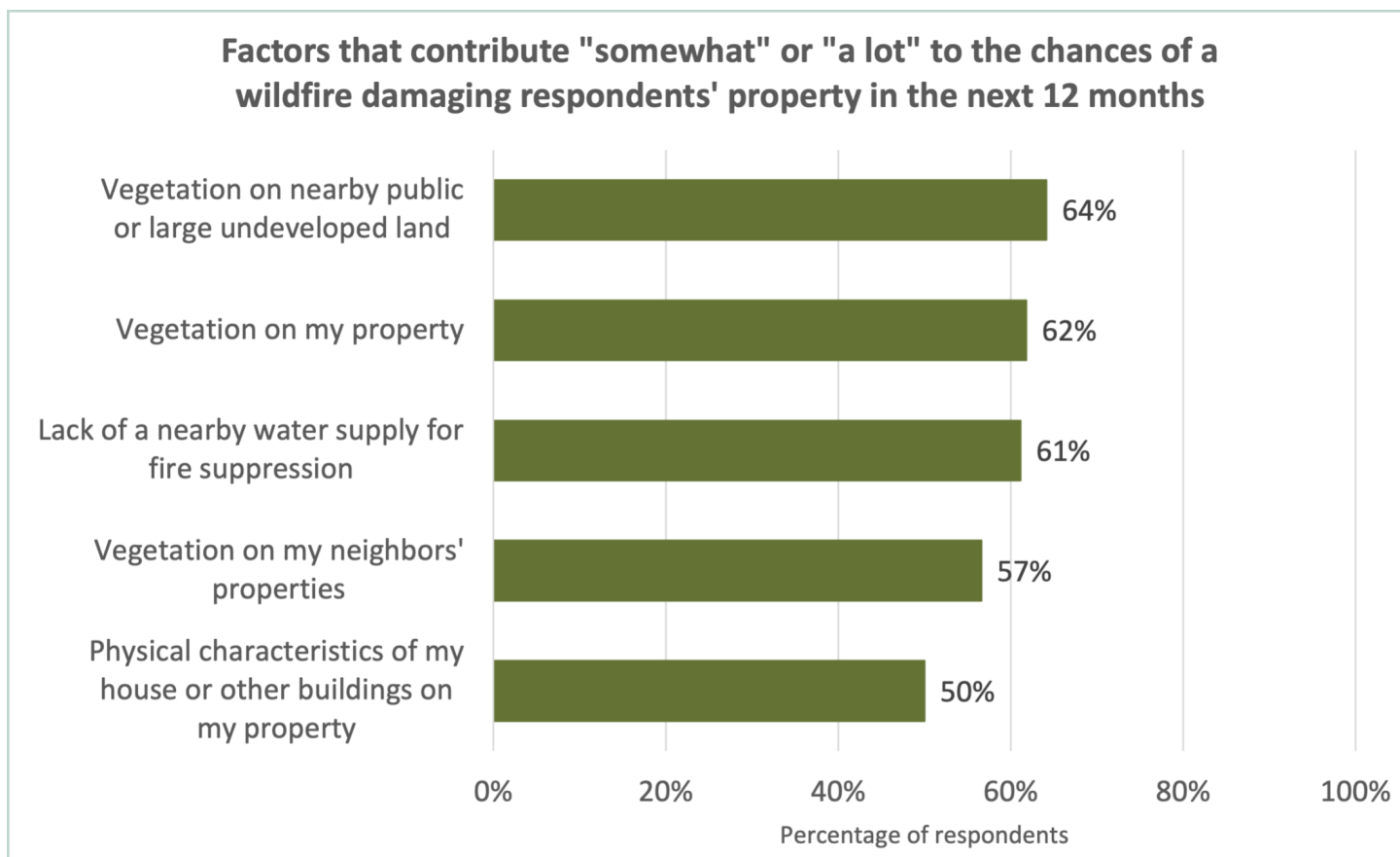


Figure 34—Percentage of respondents who thought the above factors contribute “a lot” to the chances of a wildfire damaging their property in the next 12 months, as reported in 2022–2023 by respondents residing in the study area in Montrose (and parts of Ouray) County, Colorado. N = 262–265 respondents to each survey statement listed.

There are many ways property owners can reduce their risk of wildfire. Respondents reported high levels of mitigation actions they have performed on their properties and around their communities. The three most commonly reported activities were regularly mowing and raking around the residence (86%), reducing vegetation (70%), and regularly clearing roof and gutters (68%). However, fewer respondents (53%) reported hardening their homes, and 16 percent had met with a wildfire professional to evaluate their home’s risk and only 6 percent had participated in a cost share program to reduce the cost of mitigation on their property. Few respondents reported mitigation activities beyond their own property, including helping neighbors reduce vegetation on their property (18%) or in the community (13%), reducing vegetation on public land(s) (11%) and in the community (13%) or participating in a community wildfire activity (9%) (refer to fig. 35).

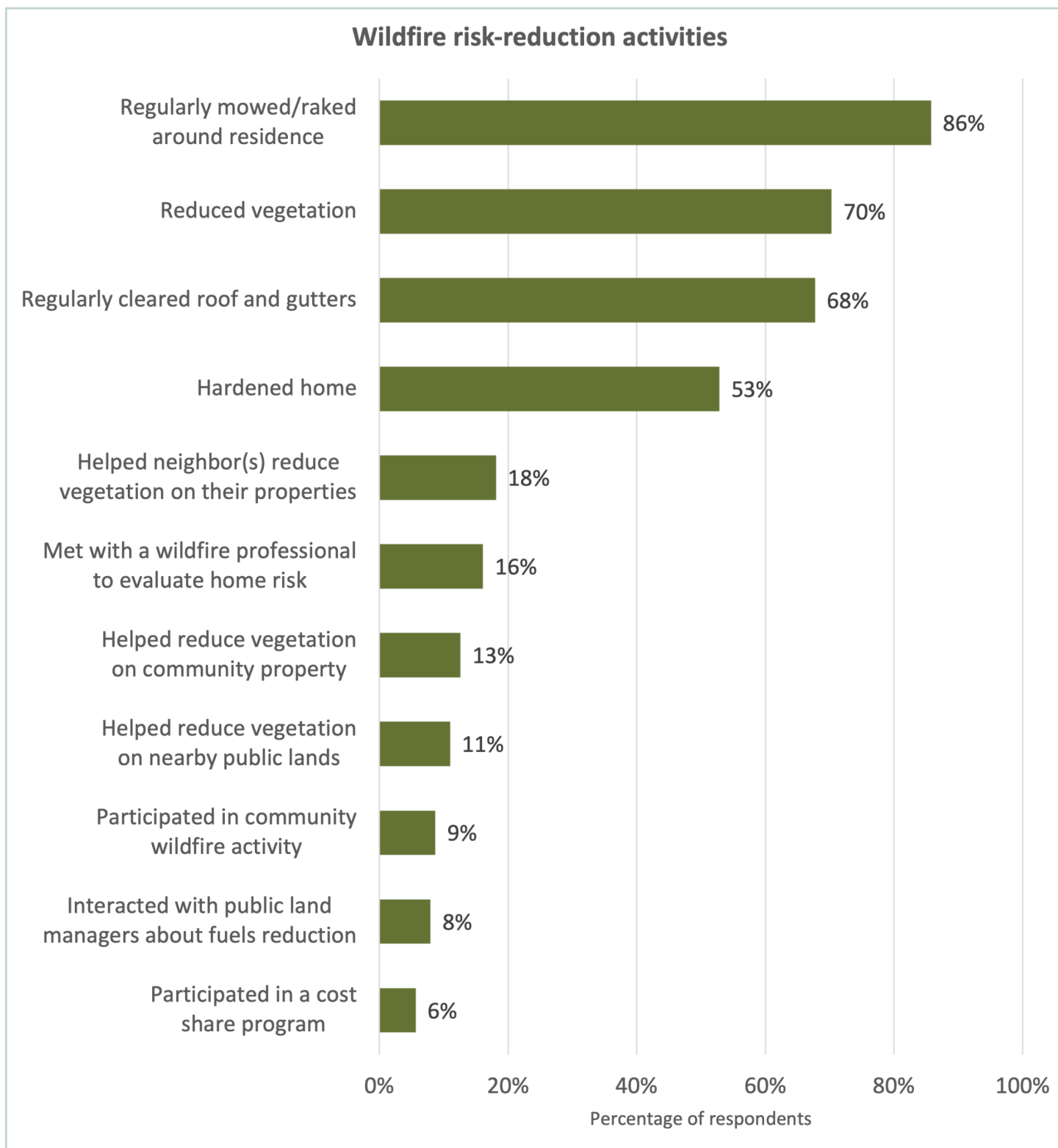


Figure 35—Percent of respondents who reported doing the above wildfire risk mitigation activities, as reported in 2022–2023 by respondents residing in the study area in Montrose (and parts of Ouray) County, Colorado. N = 254–267 respondents for each of the above activity statements.

Barriers and incentives—

Respondents were asked about four categories of potential barriers to conducting wildfire mitigation, including personal resources, lacking specific information, personal perspectives, and community-based barriers. A majority (61–78% per category) of survey respondents reported no barriers, selecting the “none of these” option, for most categories apart from personal resources (49%). Across all four categories, the four most-reported barriers to mitigation were financial expense/cost (31%), physical ability to do the work (30%), time to do the work (27%), and lack of options for or information about disposing of vegetation or slash (20% for each) (figs. 36–39).

The three most reported barriers were within the personal resources category (refer to fig. 36). Nonetheless, nearly half (49%) of respondents reported none of the personal resource factors were barriers.

Few survey respondents reported that a lack of information presented a barrier to wildfire mitigation. Eleven percent of respondents reported lack of information on where to dispose of slash as a barrier to mitigation. Most respondents (61%) reported that none of these were barriers (refer to fig. 37).

Few respondents reported barriers to mitigation rooted in personal perspectives. Fourteen percent of survey respondents indicated that mitigation was a low priority, 12 percent reported that taking action would not reduce risk, and 8 percent of survey respondents reported not wanting to change the look of their property as a barrier to mitigation. Most respondents (70%) reported that none of these were barriers (refer to fig. 38).

Community barriers to mitigation were the least reported barriers overall. The barrier most selected by respondents among those presented was a lack of options for disposing of slash (20%). Very few respondents selected the community barriers of restrictions about changing the look of a property (3%) or social pressure from neighbors (1%). Most respondents (78%) reported that none of these were barriers (refer to fig. 39).

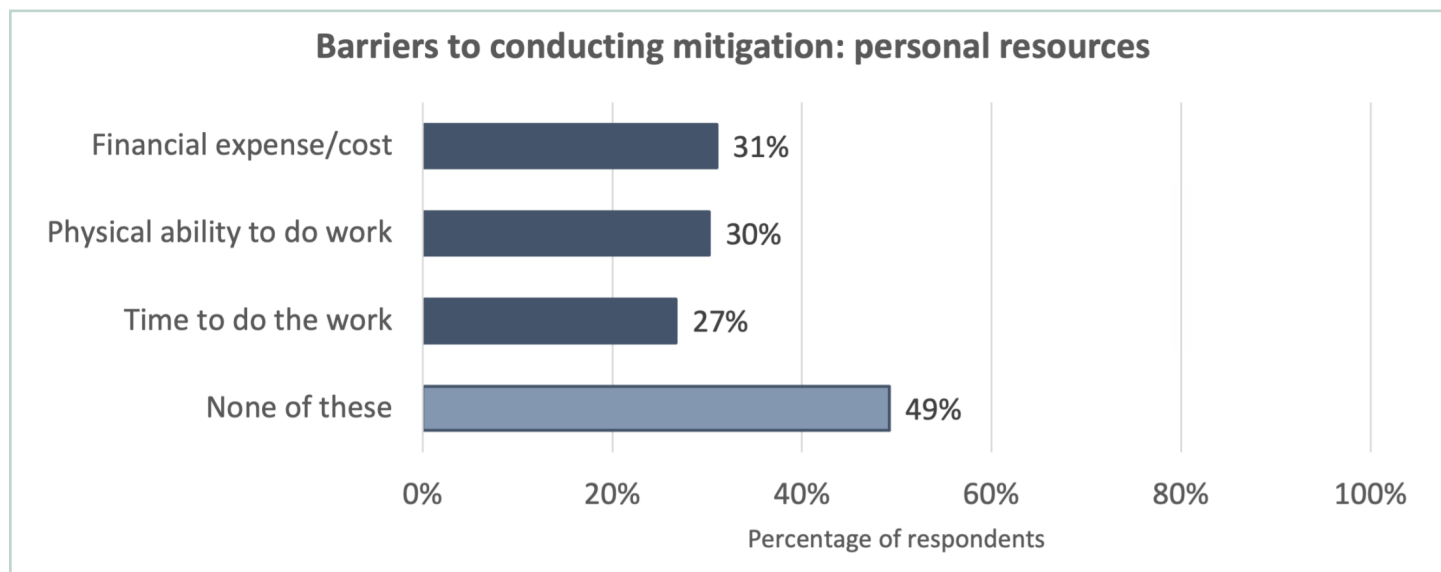


Figure 36—Personal barriers to conducting wildfire mitigation activities on property, as reported in 2022–2023 by respondents residing in the study area in Montrose (and parts of Ouray) County, Colorado. N = 258 respondents for each of the above barriers.

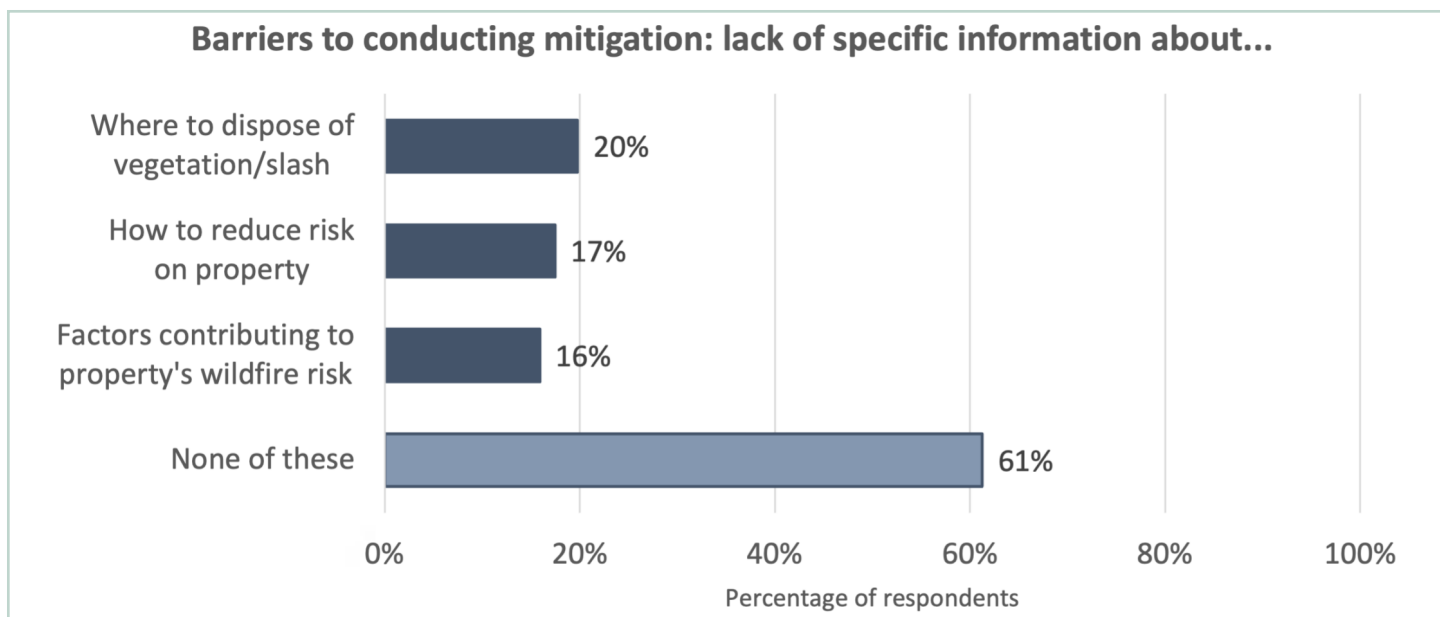


Figure 37—Information barriers to conducting wildfire mitigation activities on property, as reported in 2022–2023 by respondents residing in the study area in Montrose (and parts of Ouray) County, Colorado. N = 258 respondents for each of the above barriers.

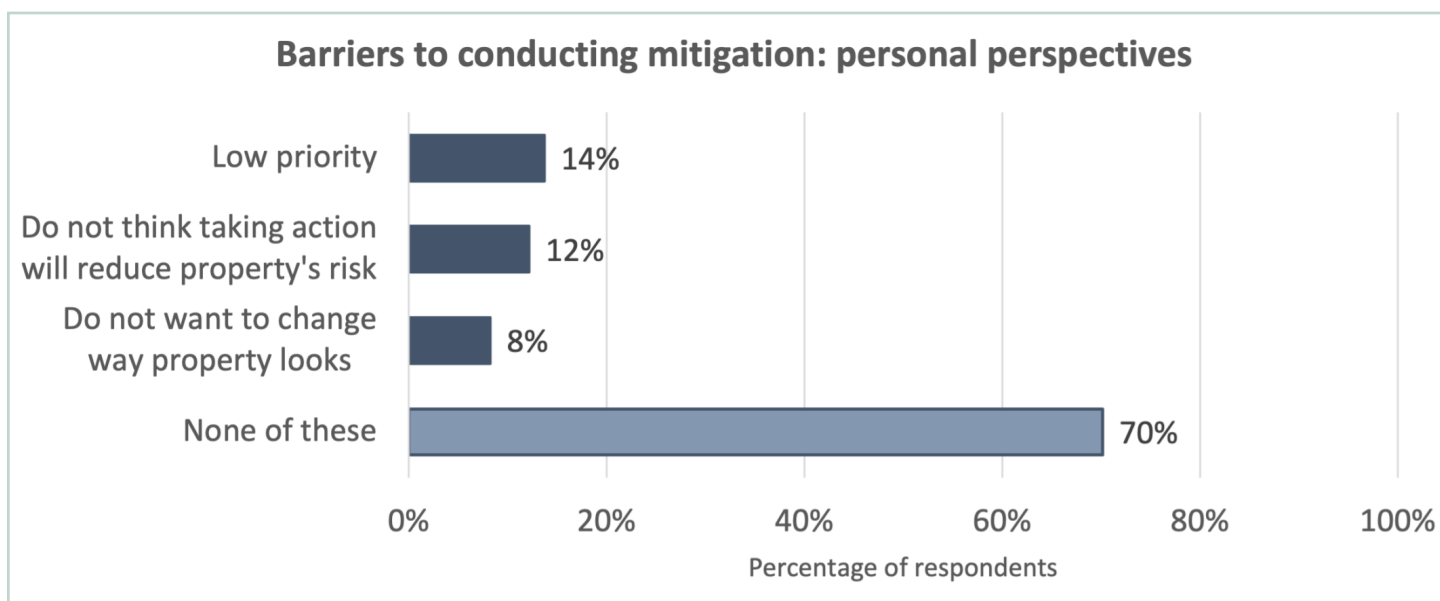


Figure 38—Personal perspectives or values that might affect wildfire mitigation activities on property, as reported in 2022–2023 by respondents residing in the study area in Montrose (and parts of Ouray) County, Colorado. N = 255 respondents for each of the above barriers.

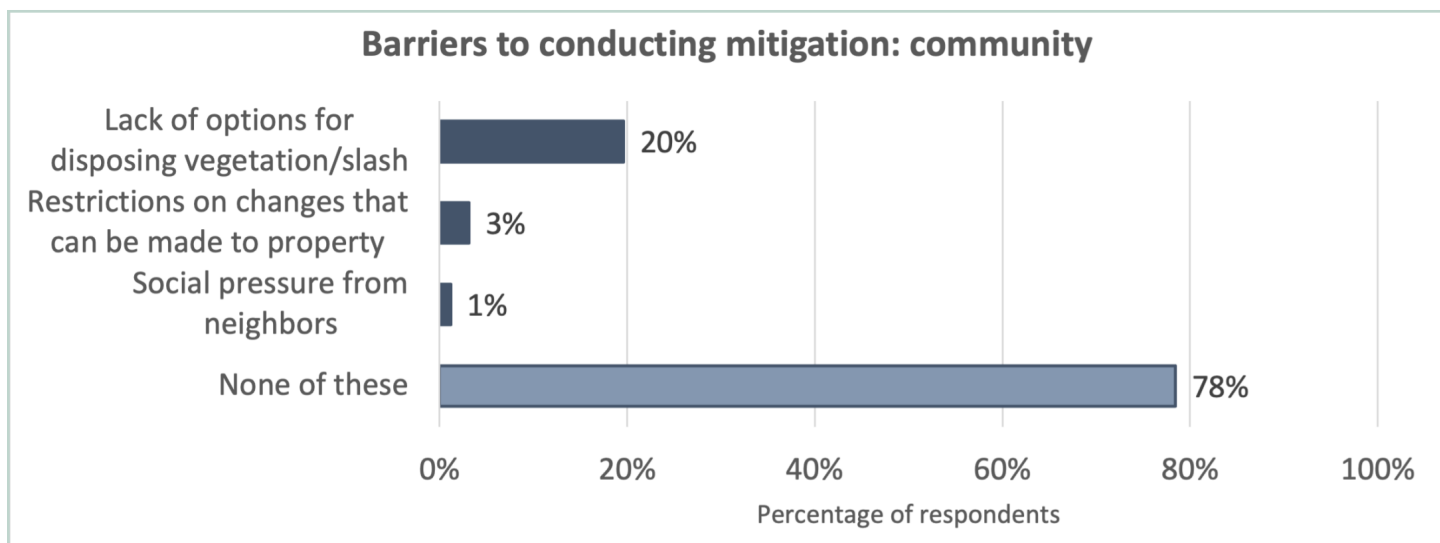


Figure 39—Community-related barriers to conducting wildfire mitigation activities on property, as reported in 2022–2023 by respondents residing in the study area in Montrose (and parts of Ouray) County, Colorado. N = 255 respondents for each of the above barriers.

We also asked respondents to consider potential incentives that would help them complete mitigation actions. These were presented in three categories: resources, information, and social incentives. In general, more respondents reported that incentives would encourage them to mitigate than barriers prevent them from mitigating. Across these categories, the most popular forms of support were a report describing property’s wildfire risk factors (47%) and cost share or financial assistance (40%), help doing the work (40%), and a one-on-one visit to the property by a wildfire expert (40%).

In the resource incentives category, cost share or financial assistance and help doing the work were the most popular (both 40%), followed by recommended contractors (14%). Forty-four percent of survey respondents reported that none of these incentives would encourage them to complete mitigation (refer to fig. 40).

In the information category, forty-seven percent of respondents stated that a report describing their property’s risk factors would help them to mitigate, 40 percent of survey respondents reported that a one-on-one visit with an expert on their property would encourage them to mitigate and twenty percent of survey respondents wanted videos showing how to reduce wildfire risk on their properties. A third of the survey respondents reported that none of these incentives would help them complete mitigation (34%) (refer to fig. 41).

Social incentives to encourage mitigation were not popular with survey respondents, with well over half (62%) indicating that none of these would be an incentive for mitigation. Twenty-eight percent reported that feedback on work they had done to reduce their property’s risk would be helpful, 16 percent thought a neighborhood group that organizes wildfire risk reduction activities would be helpful and only 5 percent reported that receiving recognition would be motivating to perform mitigation (refer to fig. 42).

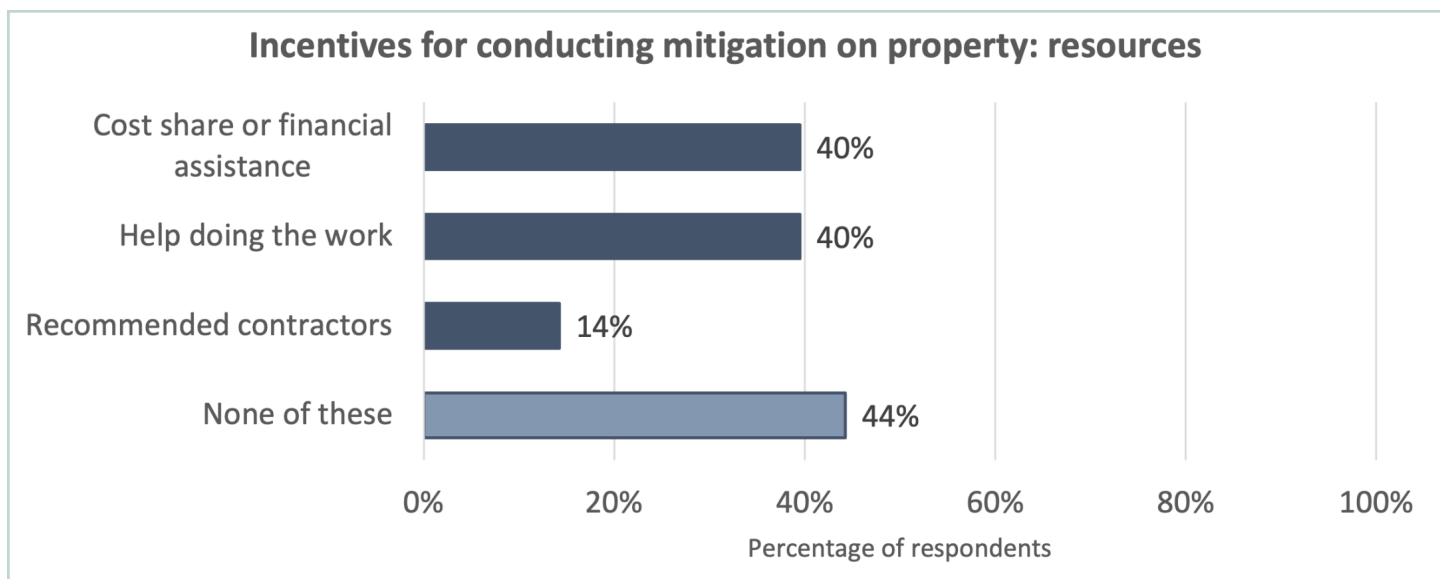


Figure 40—Resource-related incentives for conducting wildfire mitigation activities on property, as reported in 2022–2023 by respondents residing in the study area in Montrose (and parts of Ouray) County, Colorado. N = 253 respondents for each of the above incentives.

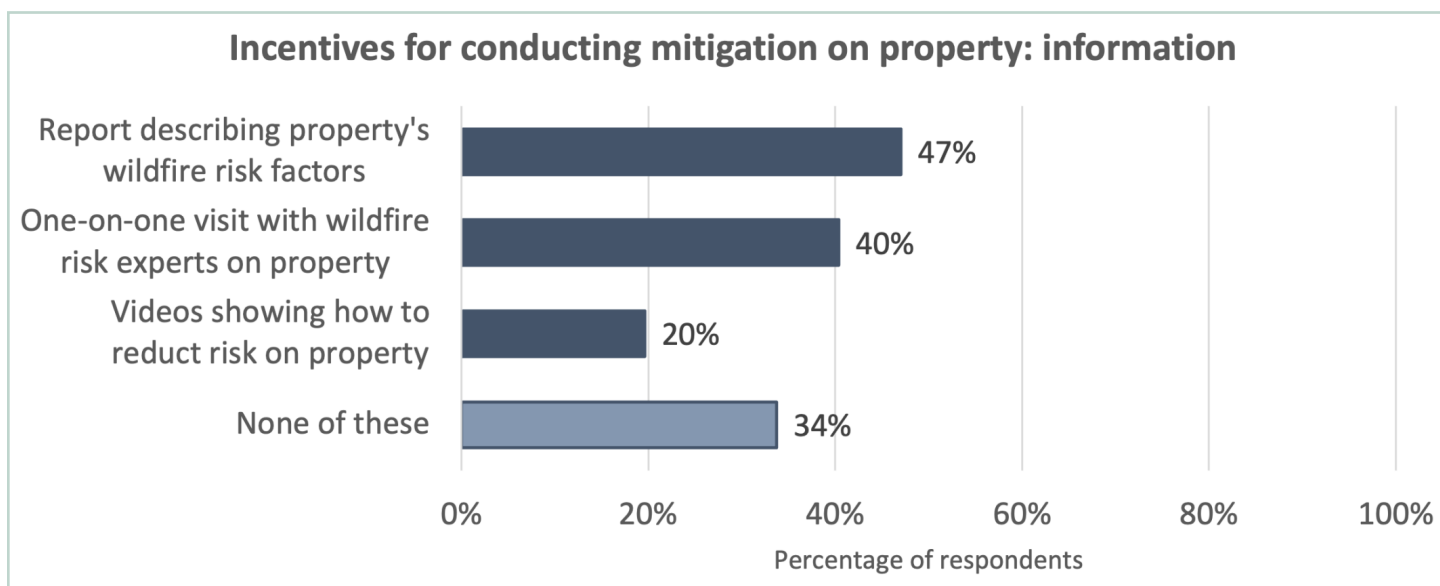


Figure 41—Information-related incentives for conducting wildfire mitigation activities on property, as reported in 2022–2023 by respondents residing in the study area in Montrose (and parts of Ouray) County, Colorado. N = 255 respondents for each of the above incentives.

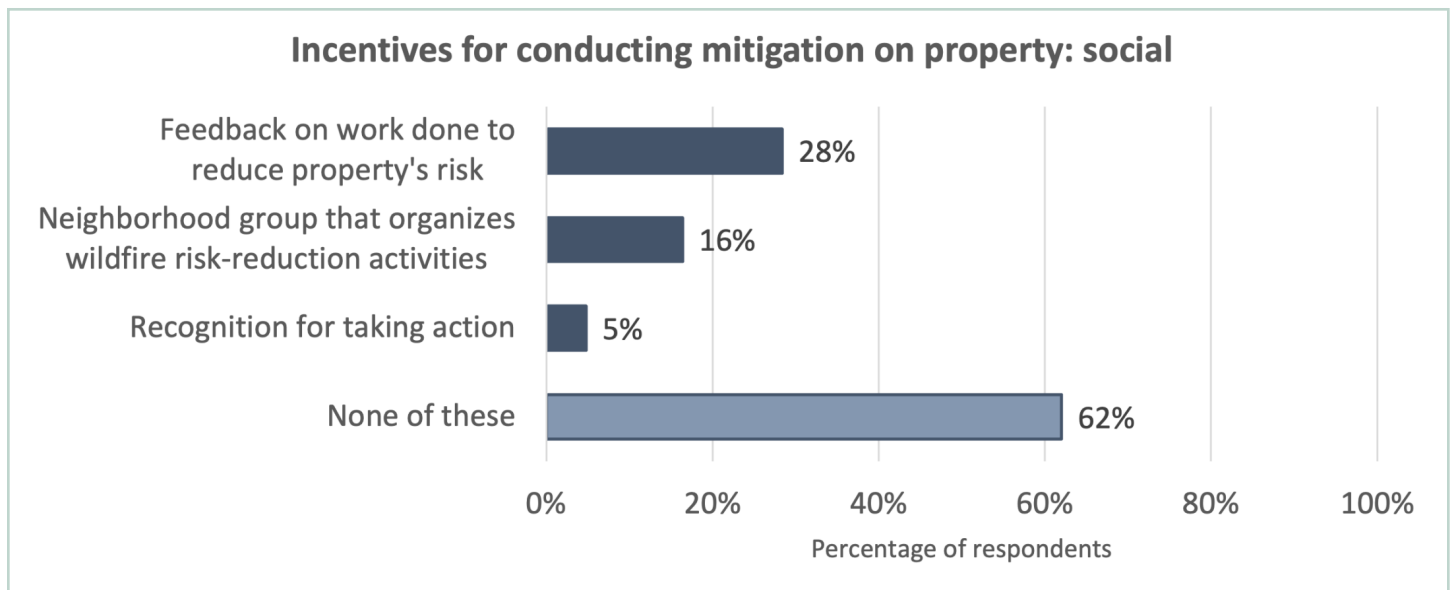


Figure 42—Other incentives for conducting wildfire mitigation activities on property, as reported in 2022- 2023 by respondents residing in the study area in Montrose (and parts of Ouray) County, Colorado. N = 250 respondents for each of the above incentives.

Perceptions of Community Risk Reduction Strategies and Fire Management

Acceptance of risk management practices—

Most survey respondents rated fuels treatments on nearby public lands as very or extremely acceptable. The highest level of acceptability was for removing vegetation along roadways for safer evacuation (73%), followed by removing trees and reducing other vegetation (64%). Sixty percent of respondents indicated that both burning piles of vegetation and removing trees and reducing other vegetation on homeowner’s association (HOA) property was extremely or very acceptable. Just less than half (48%) indicated that allowing a naturally ignited fire to burn was extremely or very acceptable and fewer (46%) indicated that conducting a prescribed fire ignited by fire professionals was extremely or very acceptable (refer to fig. 43).

Survey respondents also indicated broad support for proposed wildfire regulations and practices including adopting building codes that require fire resistant materials for structures located in fire-prone areas (60%) and adopting development standards that require vegetation management (51%). Just under half (48%) indicated that adopting growth policies or land use regulations that limit new development was extremely or very acceptable. Forty-two percent indicated that building a new road to provide an emergency evacuation route and a third (33%) indicated temporarily shutting off the power grid during extreme fire risk days to avoid new ignitions was extremely or very acceptable (33%) (refer to fig. 44).

Finally, 75 percent of respondents indicated that managing the forest before a fire to reduce potential post-fire impacts on water resources was extremely or very acceptable (refer to fig. 45).

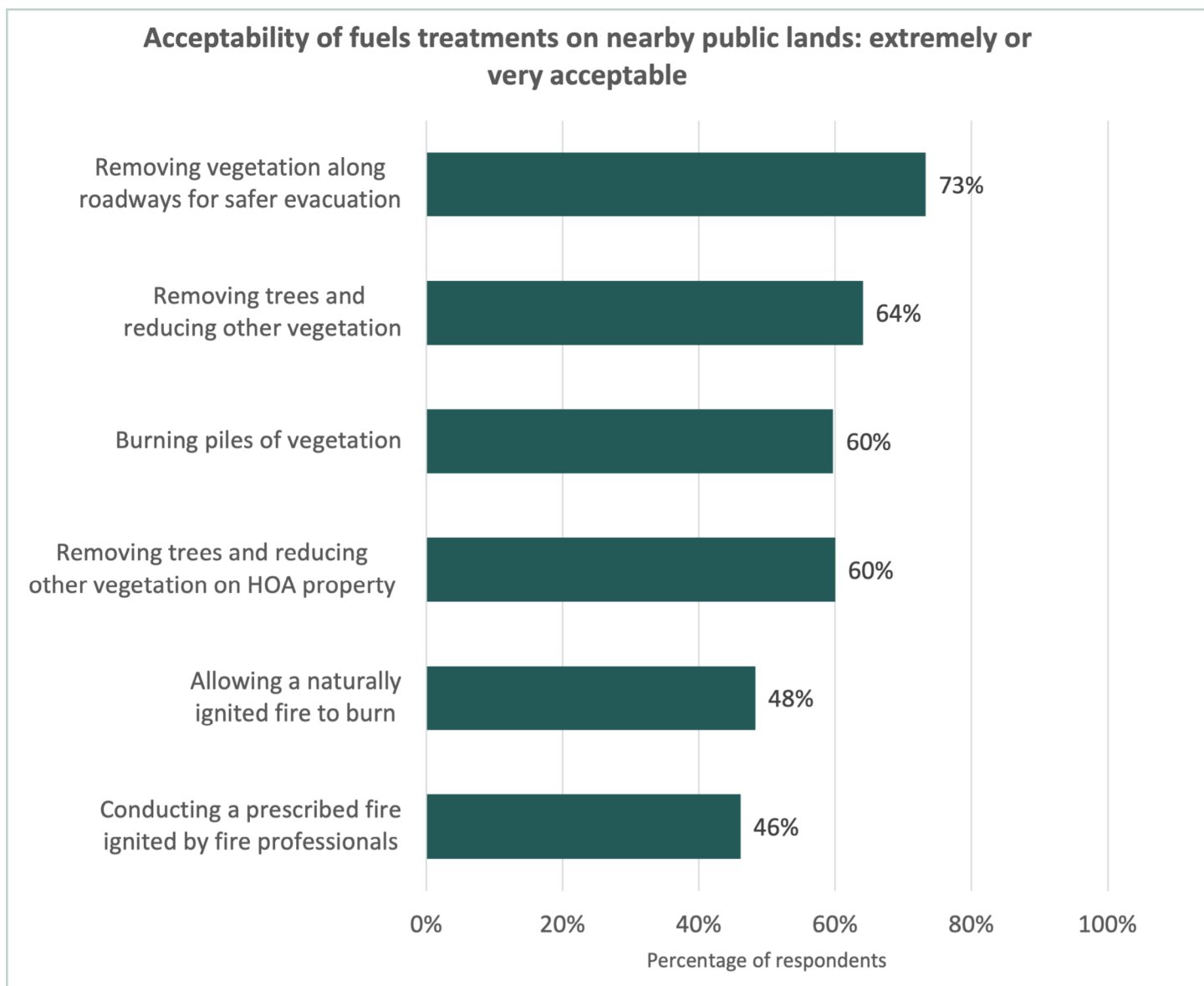


Figure 43—Percentage of respondents who found each of the above wildfire fuels management approaches very or extremely acceptable, as reported in 2022–2023 by respondents residing in the study area in Montrose (and parts of Ouray) County, Colorado. N = 250–262 respondents for each of the above statements. HOA = homeowners association.

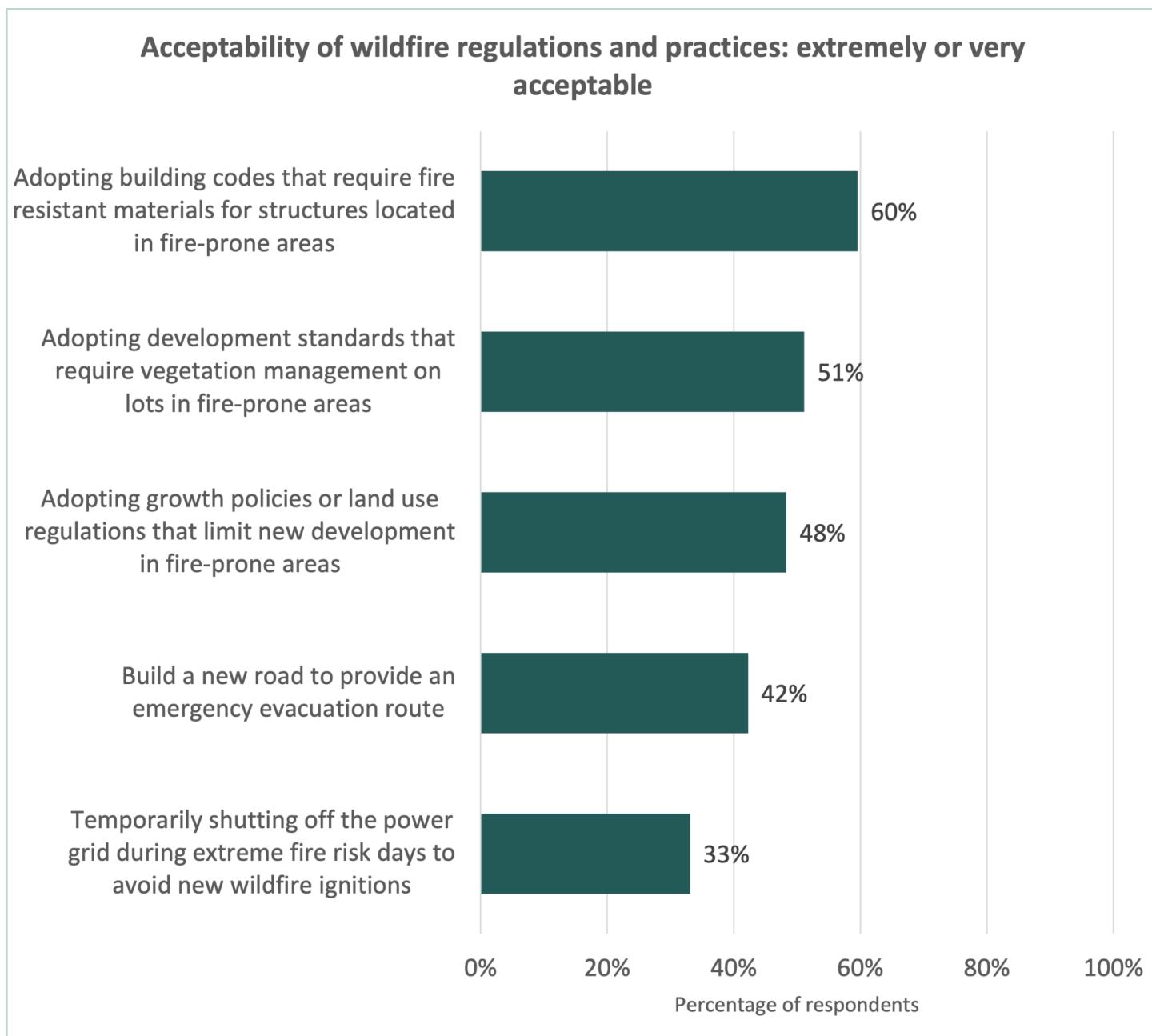


Figure 44—Percentage of respondents who found each of the above wildfire-related policies very or extremely acceptable, as reported in 2022–2023 by respondents residing in the study area in Montrose (and parts of Ouray) County, Colorado. N = 258–263 respondents for each of the above statements.

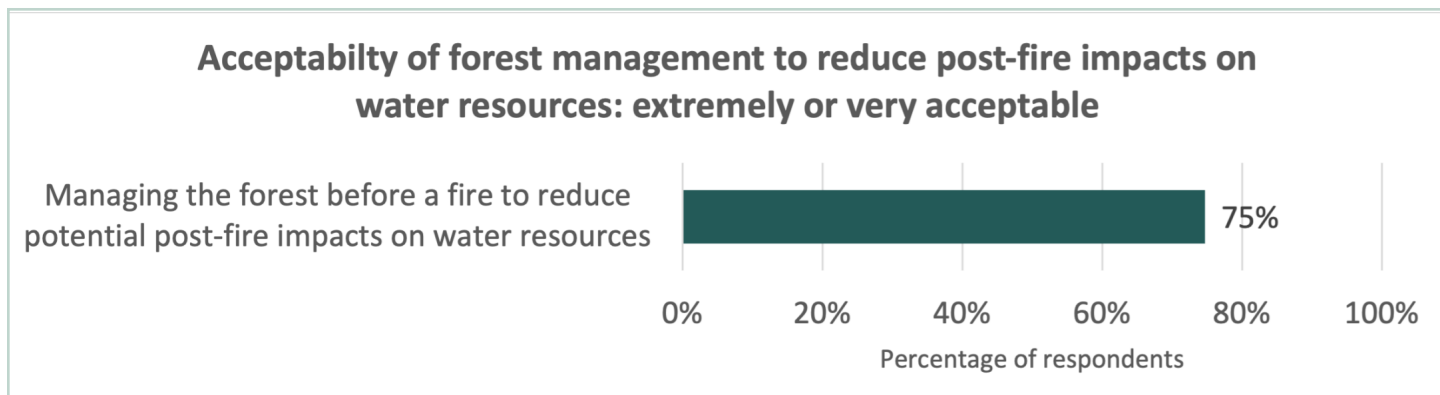


Figure 45—Percentage of respondents who found the management action very or extremely acceptable, as reported in 2022–2023 by respondents residing in the study area in Montrose (and parts of Ouray) County, Colorado. N = 261 respondents for the above statement.

Notions of hazard and response—

We asked respondents to what extent they agreed or disagreed with a wide range of statements about wildfire. Most survey respondents agreed or strongly agreed that wildfires threatening human life (91%) and threatening homes (85%) should be put out. In addition, most agreed or strongly agreed that wildfires are a natural part of a healthy forest ecosystem (89%). Two-thirds (66%) of survey respondents agreed or strongly agreed that saving homes should be prioritized over saving forests during wildfire events (refer to fig. 46).

Despite preferences to suppress wildfire, survey respondents were less confident in the technology and resources available to do so. Less than half of respondents (43%) agreed or strongly agreed that most wildfires can be controlled with proper technology. Notably, only nineteen percent agreed or strongly agreed that local firefighters have sufficient resources to protect homes from wildfire, and fewer (15%) agreed or strongly agreed that local firefighters have sufficient resources to keep wildfires from spreading (refer to fig. 47).

Finally, wildfire can pose a risk to local water supply. Few respondents (22%) agreed or strongly agreed that wildfires threaten their community water supply (refer to fig. 48).

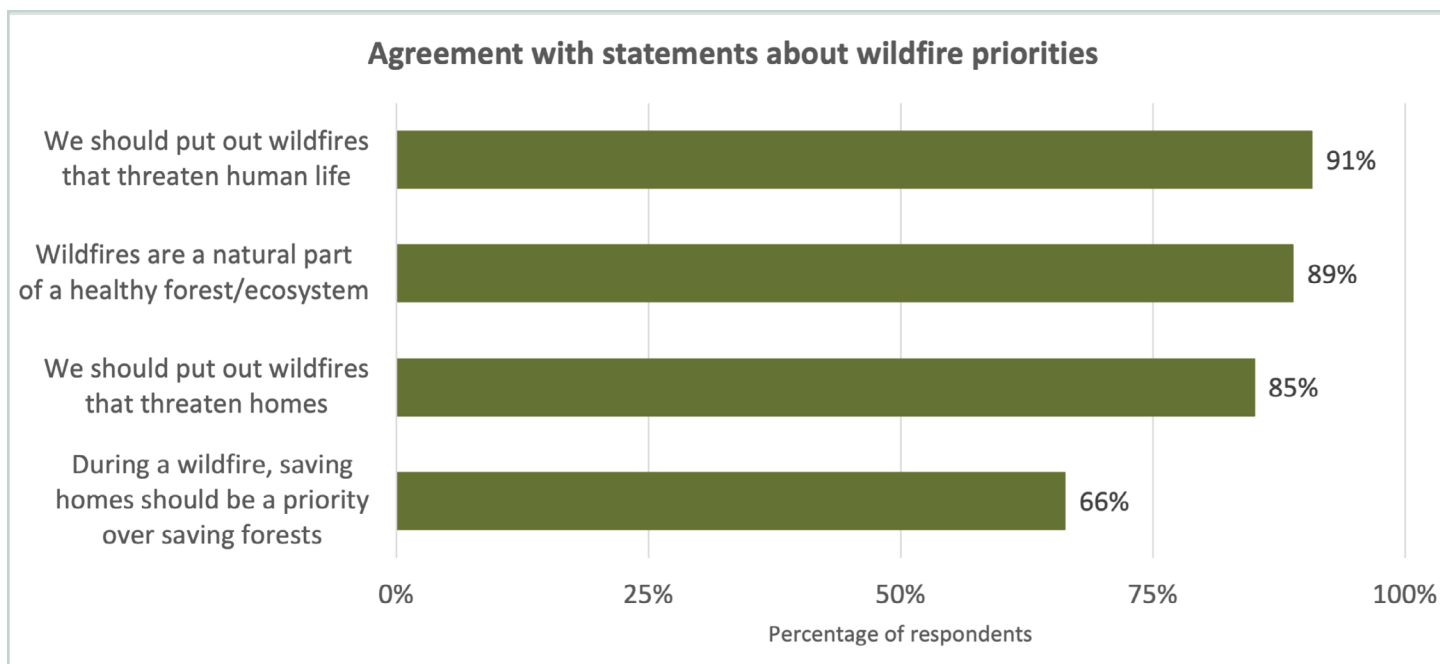


Figure 46—Agreement (“agree” or “strongly agree”) with statements about priorities between human and natural resources during a wildfire, as reported in 2022–2023 by respondents residing in the study area in Montrose (and parts of Ouray) County, Colorado. N = 260–261 respondents to each survey statement listed.

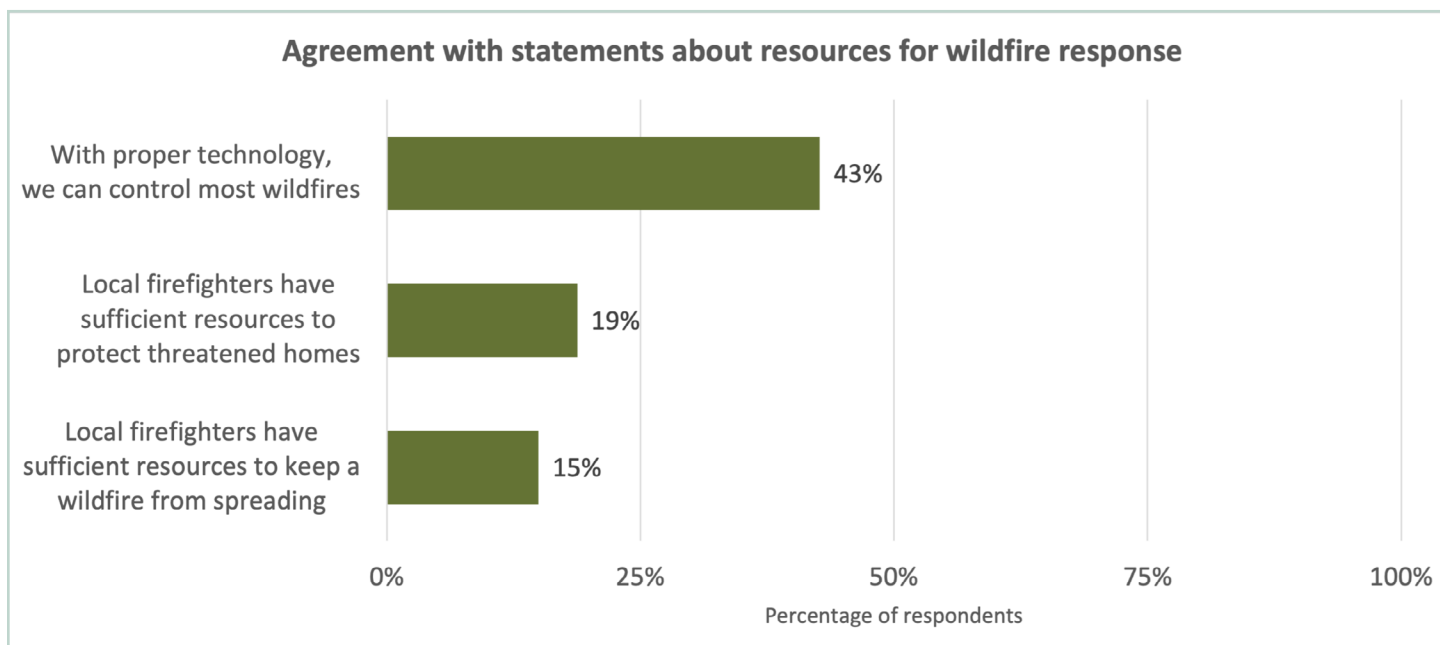


Figure 47—Agreement (“agree” or “strongly agree”) with statements about available technology and resources to prevent wildfire impacts, as reported in 2022–2023 by respondents residing in the study area in Montrose (and parts of Ouray) County, Colorado. N = 260–261 respondents to each survey statement listed.

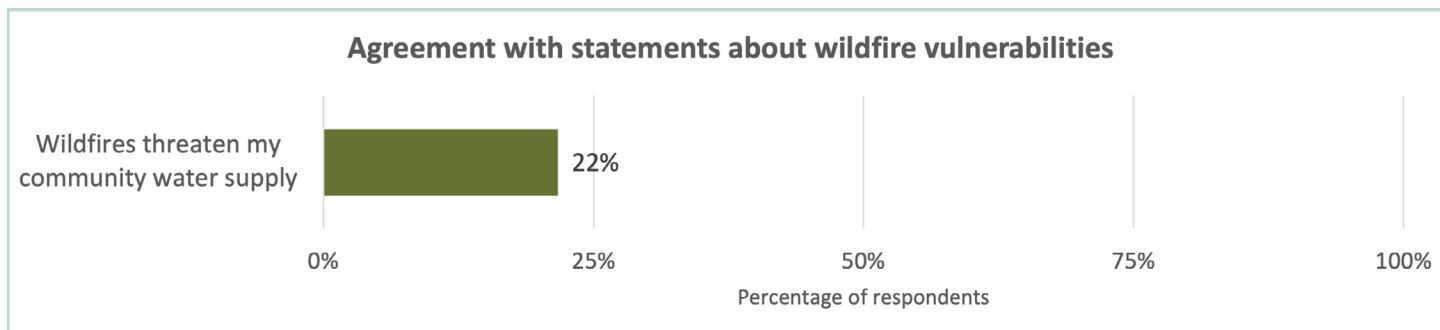


Figure 48—Agreement (“agree” or “strongly agree”) with statements about whether wildfire threatens the respondent’s water supply, as reported in 2022–2023 by respondents residing in the study area in Montrose (and parts of Ouray) County, Colorado. N = 258 respondents this survey statement.

Results From Cost Share Questions

Cost share programs are a mechanism used to help incentivize property owners in the wildland-urban interface to reduce risk by removing vegetation that can lead to home ignition or the spread of wildfire. Such programs vary in their design and scope, however there is limited documented evidence to provide guidance on how to optimize efficacy of the allocation of such financial resources. The West Region Wildfire Council began offering a cost share wildfire mitigation program in 2011 and indicated interest in collecting data to help them identify what is working and opportunities to improve their program. The household survey included a small battery of questions that asked respondents to indicate interest in the overall cost share model, the amount they would be willing to pay given a reimbursement, and whether specific characteristics of the program may make them more or less likely to participate.

The majority of survey respondents (71%) indicated that they would reduce vegetation on their property if they received reimbursement for the cost (refer to fig. 49). Respondents were subsequently provided a brief description of the program and asked their willingness to pay. Nearly a third (32%) indicated that they would not participate in the program, even if fully reimbursed. In contrast, four percent of respondents indicated they would participate in the program even if the reimbursement amount equaled zero dollars. And 1% indicated they would be willing to pay \$2,700 of the \$3,000 estimated to cost to remove vegetation on the first acre surrounding their home. Nearly a quarter (24%) selected the option in which they be willing to match the amount the program would pay toward mitigation (\$1,500 each) (refer to fig. 50).

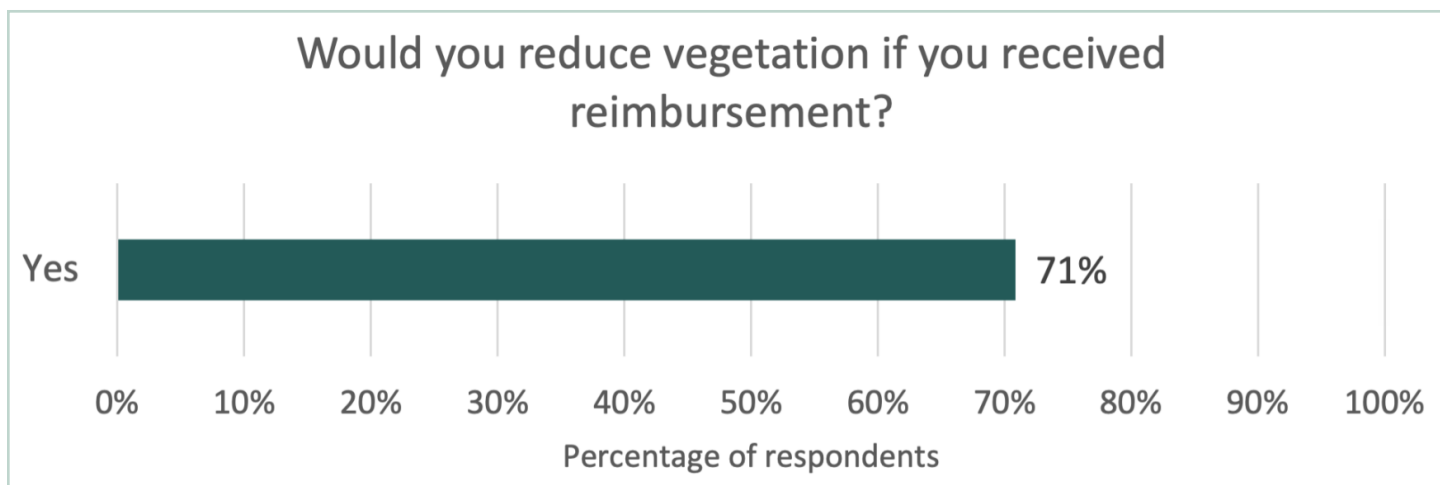


Figure 49—Percent of respondents who stated they would participate in a cost share program if they were reimbursed, as reported in 2022–2023 by respondents residing in the study area in Montrose (and parts of Ouray) County, Colorado. N = 247 respondents.

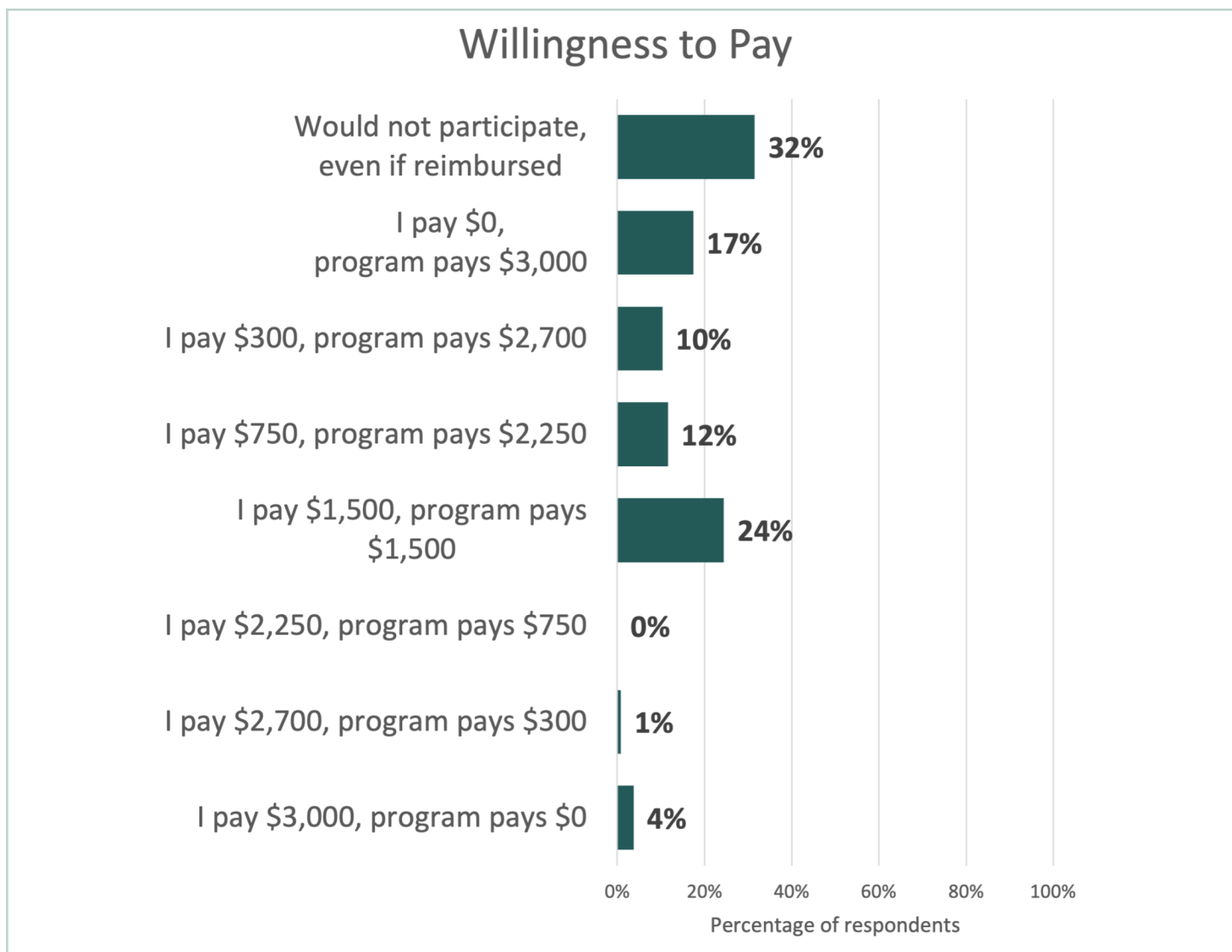


Figure 50—Percent of respondents who responded “Yes” they are willing to pay a certain amount, given the program pays a certain amount, as reported in 2022–2023 by respondents residing in the study area in Montrose (and parts of Ouray) County, Colorado. N = 241 respondents to each survey statement listed.

Respondents were also asked to indicate how the features of the program would influence their decision to participate in the program. Most of the respondents (55–70%) indicated that the listed programmatic features would not affect their decision. The strongest incentives were having someone help develop a plan (34%) and the resulting reduction of vegetation on their property (26%). The strongest deterrents to participation were having to hire the contractor (38%), the complexity of the program (34%), and having to pay a portion of the total cost (27%). The timing of when they learn the portion of the total cost they would pay (26%) and the timing of reimbursement (23%) were also notable deterrents (refer to fig. 51).

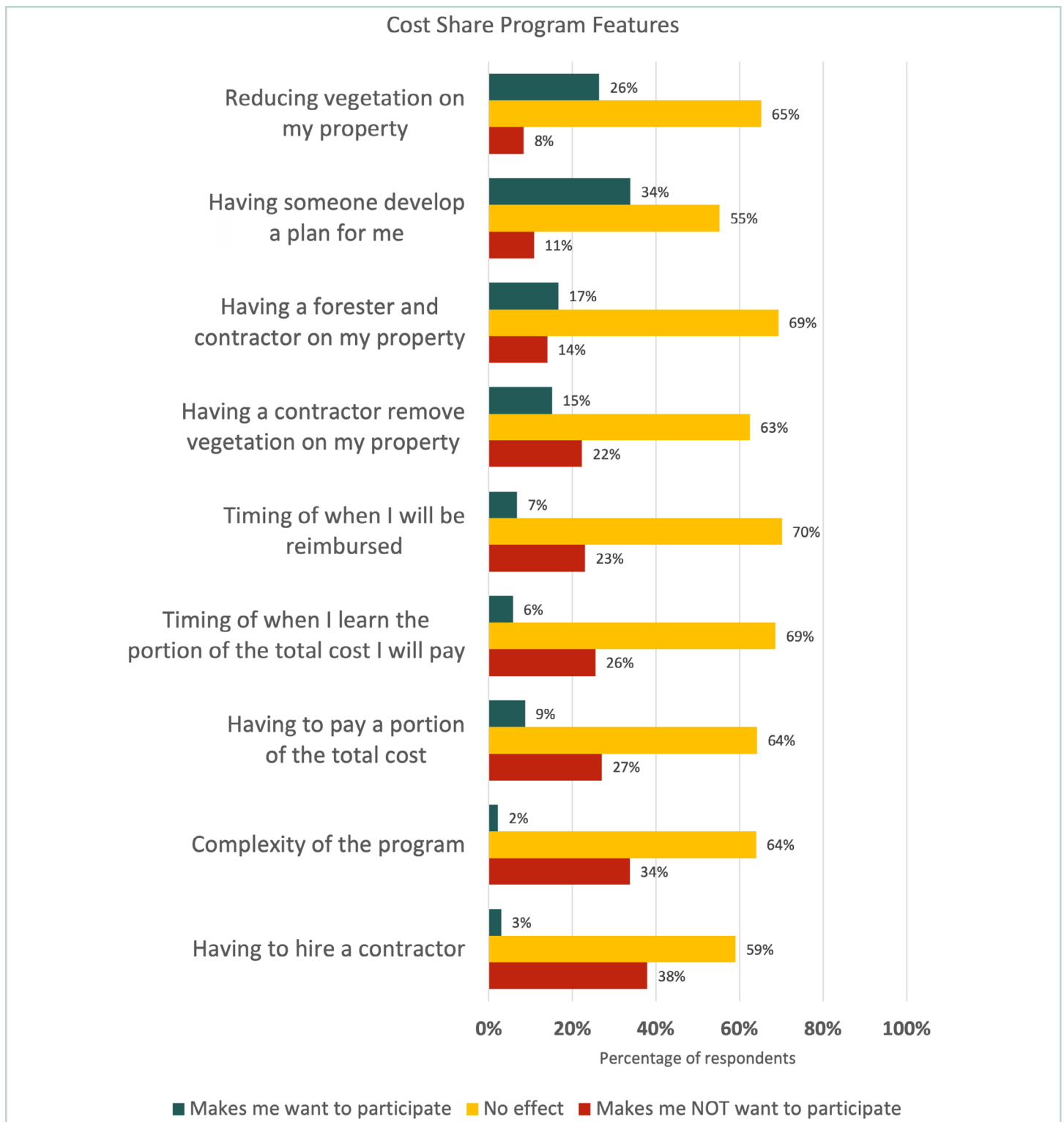


Figure 51—Percent of respondents who stated that a certain cost share program feature makes them want to participate, has no effect on them, or makes them not want to participate, as reported in 2022-2023 by respondents residing in the study area in Montrose (and parts of Ouray) County, Colorado. N = 221-232 respondents to each survey statement listed.

In anticipation of reimbursement timing being a potential deterrent to participation, respondents were also asked if the program required participants to pay the full cost at

the time of service, what would be the maximum acceptable wait time for reimbursement. Twenty-nine percent of respondents indicated they would not be willing or able to wait for reimbursement. Six percent would wait 5 business days, 12 percent would wait 10 business days, and 30 percent indicated they would be willing/able to wait a month for reimbursement. Twenty-three percent indicated they were not concerned about reimbursement timing as long as they were eventually reimbursed (refer to fig. 52).

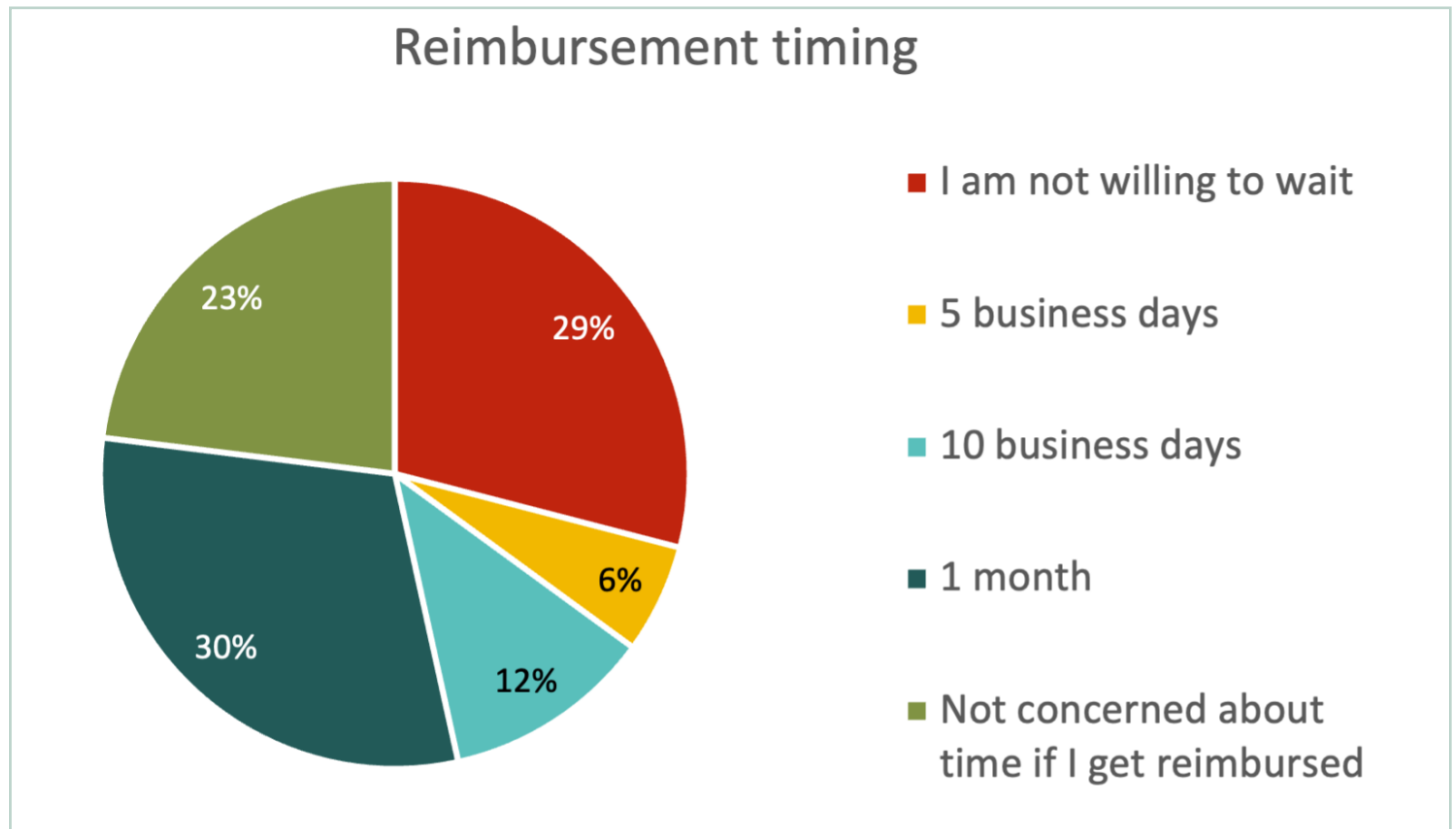


Figure 52—Percent of respondents for each reimbursement timing option, as reported in 2022–2023 by respondents residing in the study area in Montrose (and parts of Ouray) County, Colorado. N = 217 respondents to each survey statement listed.

And finally, the majority (91%) of respondents indicated that their property is larger than one acre. When asked if a cost share program could help pay for vegetation removal beyond the one-acre area around their home, respondents indicated that they would be willing to mitigate 20 acres, on average, and pay approximately \$525 per acre (range \$0 to \$13,000/acre).

Conclusion

This report compares professional rapid risk assessment and homeowner self-assessment of parcel-level wildfire risk in Montrose (and parts of Ouray) County, Colorado. The report also highlights the social dimensions of wildfire, including respondents' perceptions of wildfire risk and responsibility for wildfire risk reduction, perceptions of public land management strategies and policies for wildfire risk mitigation, current mitigation and evacuation preparedness activities, barriers and incentives to mitigation, and communication preferences.

The vast majority of survey respondents reported being very or somewhat aware of wildfire risk when they purchased their home, and despite relatively little direct fire experience at their current residence, they have taken action to reduce risk (figs. 18–20, 34). Survey responses indicate that they identify vegetation on their property as one of the main contributors to their wildfire risk (fig 26), believe homeowner actions are effective in reducing risk (fig. 48), and respondents identify few barriers to taking action (figs. 36–38). Results indicate several opportunities for educational outreach with Montrose County residents. First, to address the gap between professional and respondent risk assessments, wildfire professionals can provide more specific information on management of vegetation and other combustibles in the home ignition zone (HIZ) (figs. 9–10). Second, results indicate respondents may benefit from education about the mechanisms of home ignition, particularly the possibility of ember-driven ignition, which may inform how residents approach mitigation (fig. 25). Third, while results indicate that most respondents report having an evacuation plan and about half have completed several key preparedness actions (figs. 32–33), relatively few have signed up for the emergency notification system that will provide the timeliest information in the event of an emergency. Given that a portion of survey respondents indicated they wanted information about each preparedness step, residents may benefit from detailed messaging about emergency preparedness, along with specific information about how to sign up for emergency notification.

Survey results also indicate opportunities for wildfire risk reduction at the landscape level, on public lands. Results indicate high acceptability of fuel treatment options, especially for burning piles of vegetation, vegetation removal along roadways for safer evacuation, and managing a naturally ignited fire (fig. 42). Survey respondents also indicated broad support for adoption of some codes or regulations in fire-prone areas (fig. 43). However, respondents were less accepting of the option to temporarily shut off the power grid on extreme fire risk days (fig. 43).

Outreach efforts to educate residents about mitigation and preparedness or upcoming fuel treatment projects may be most effective if coming from sources of information that respondents currently receive (fig. 30) and via communication channels that respondents find useful, particularly mailed newsletters and in-person interactions (fig. 31). While none of the sources were received by more than 50 percent of respondents, information from the West Region Wildfire Council and the local fire protection district were considered extremely or very useful by the largest portion of respondents. Given the preference for mailed newsletters, the West Region Wildfire Council and WiRē collaborated on a two-page pamphlet sent to all residents in the study area, which provided key information on wildfire risk mitigation and emergency preparedness resources to encourage further action (Appendix F).

APPENDIX A: Correspondence Materials and Household Survey

Correspondence Materials.....55

Household Survey61

Dear Montrose Fire Protection District Resident,

The West Region Wildfire Council (WRWC) is a non-profit organization working to promote and empower community wildfire adaptation while increasing ecological resilience to future wildfire. WRWC acts as the regional focal point for coordination and collaboration around strategies and priorities for reducing wildfire risk in wildland-urban interface (WUI) communities within Delta, Gunnison, Hinsdale, Montrose, Ouray, and San Miguel Counties. To guide our efforts, we want to learn about the community's current state of wildfire preparedness as well as residents' knowledge, experience, and thoughts.

Wildfire Risk Assessment

This year the WRWC, in partnership with the Montrose Fire Protection District, Montrose County Sheriff's Office, Colorado Division of Fire Prevention and Control, Colorado State Forest Service, and the Bureau of Land Management, will conduct parcel-level wildfire risk assessments. These assessments will provide information about how each household can be better prepared to survive a wildfire. Parcel-level assessments are a quick overview of the property characteristics that contribute to wildfire risk, including roof type, vegetation density, and evacuation routes. If you are interested in a more in-depth, on-site, no cost wildfire risk assessment of your home and property, please visit COWildfire.org and fill out the Site Visit Request Form located under the Take Action Tab.

Living with Wildfire in Montrose in 2022 Survey

The second part of the assessment is a survey that will help us understand your knowledge and perspectives on wildfire. In partnership with the University of Colorado, surveys will be mailed to all households later this year. 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. A project report will be available in early 2023, at the conclusion of the project.

If you have any questions about the parcel-level wildfire risk assessments or the survey, please email Aaron Johnson, Wildfire Mitigation Specialist, WRWC, at Aaron.Johnson@COWildfire.org.

Thank you for participating.

Sincerely



Tad Rowan
Fire Chief
Montrose Fire Protection District



Jamie Gomez
Executive Director
West Region Wildfire Council



Dear Montrose Fire Protection District Resident,

The University of Colorado, the West Region Wildfire Council (WRWC), and the Wildfire Research (WiRē) Center are partnering to send the “Living with Wildfire in Montrose in 2023” survey to residents of the fire protection district. To create the most effective programs possible, WRWC needs to understand what you know about wildfire, your experiences with wildfire, as well as the characteristics of your property. The information you provide will help WRWC and emergency responders better prepare for future fires as well as improve our outreach and education efforts. Results from the study will be shared with local, state, and federal groups considering wildfire risk management at the conclusion of the project.

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. Survey results will be reported in summary form and your name will not be 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 are acknowledging you understand your rights as a study participant and providing consent to participate (*please see more details on the back of this letter*).

If you have any questions about the survey, please email Hannah Brenkert-Smith at hannahb@colorado.edu. If you have any questions about the collaborative project, please email Aaron Johnson, Wildfire Mitigation Specialist, WRWC, at Aaron.Johnson@COWildfire.org.

Thank you for participating.

Sincerely,

Hannah Brenkert-Smith

Hannah Brenkert-Smith
Institute of Behavioral Science
University of Colorado



Tad Rowan
Fire Chief
Montrose Fire Protection District



Jamie Gomez
Executive Director
West Region Wildfire Council



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.



The Wildfire Research Center
8117 Alfalfa Ct
Niwot, CO 80503

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FIRST-CLASS MAIL
U.S. POSTAGE PAID
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PERMIT NO. 170

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<<city>>, <<state_1>> <<zip>>

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West Region Wildfire Council – 160 S. Amelia St., Ridgway, CO 81432 – COWildfire.org

Dear Montrose Fire Protection District Resident,

We recently sent you the “Living with Wildfire in Montrose in 2023” survey. If you have not had a chance to complete and mail the survey, please do so today. 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 wildfires.

If you have recently returned the survey, thank you for your participation!

Sincerely,

Hannah Brenkert-Smith

Hannah Brenkert-Smith
Institute of Behavioral Science
University of Colorado

Tad Rowan
Fire Chief
Montrose Fire Protection District

Jamie Gomez
Executive Director
West Region Wildfire Council



University of Colorado
Boulder



Dear Montrose Fire Protection District Resident,

We recently requested your participation in an important survey about the West Region Wildfire Council and wildfire. Many residents have completed and returned the survey. However, we would like to hear from you so we can consider your opinions. If you have already returned the survey, thank you for your participation. If you have not yet responded, please complete and return the enclosed survey.

The “Living with Wildfire in Montrose in 2023” survey is a collaborative effort between West Region Wildfire Council, the University of Colorado, and the Wildfire Research (WiRē) Center. We need your help to develop more effective community wildfire programs. It is our goal to proactively confront wildfire preparedness issues before the smoke is in the air.

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. Survey results will be reported in summary form and your name will not be 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 are acknowledging you understand your rights as a study participant and providing consent to participate (*please see more details on the back of this letter*).

If you have any questions about the survey, please email Hannah Brenkert-Smith at hannahb@colorado.edu. If you have any questions about the collaborative project, please email Aaron Johnson, Wildfire Mitigation Specialist, WRWC, at Aaron.Johnson@COWildfire.org.

Thank you for participating.

Sincerely,

Hannah Brenkert-Smith

Hannah Brenkert-Smith
Institute of Behavioral Science
University of Colorado



Tad Rowan
Fire Chief
Montrose Fire Protection District



Jamie Gomez
Executive Director
West Region Wildfire Council



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.

Living with Wildfire in Montrose in 2023



West Region Wildfire Council
160 S. Amelia St., Ridgway, CO 81432
<https://cowildfire.org/>

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

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

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

- ☐ Own: primary home
- ☐ Own: secondary residence
- ☐ Rent: I do not own this home

1.2. In a typical year, what months do you spend any time at your Montrose home?
(*Fill in all that apply*)

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 Montrose home? (*Fill in the blank*)

_____ Year moved to my Montrose home

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

_____ Year my Montrose home was built

1.5. How aware of wildfire risk were you when you bought or decided to rent your Montrose 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 Montrose home.

2.1. What is the closest distance (as a crow flies) a wildfire has come to your Montrose 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. Have you had any of the following wildfire experiences at your Montrose home? *(Fill in one circle per row)*

	No	Yes
I have evacuated from my Montrose home due to a wildfire or threat of a wildfire	☐	☐
My Montrose home has had smoke damage	☐	☐
My Montrose home has had wildfire damage	☐	☐
My Montrose home was destroyed by a wildfire	☐	☐

2.3. Do you currently have an evacuation plan in the event a wildfire threatens your Montrose 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. Have you completed any of the following actions to prepare for a **wildfire evacuation**, and do you want more information about how to complete any of the actions?
(Fill in all circles that apply)

	Completed action	Want more information
Identify how I will be notified about an evacuation	☐	☐
Sign up for a wildfire evacuation notification system (Alert Center www.montrosecounty.net/AlertCenter.aspx)	☐	☐
Identify safe evacuation routes	☐	☐
Identify a location that my household will evacuate to	☐	☐
Identify what to take and what to leave behind during an evacuation	☐	☐
Discuss evacuation with my neighbors	☐	☐
Create a checklist for steps to take before evacuating	☐	☐
Identify a place to stay during a long-term evacuation (i.e., more than a few days)	☐	☐
Pack a “go” bag with important items you would need during an evacuation (see https://simplebooklet.com/emergencygobag)	☐	☐

- 2.5. Please tell us about your experiences with your **homeowners insurance** for your Montrose home. (Fill in one circle per row)

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

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

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

☐ No

☐ Yes

3.4. What is the **closest** distance from your Montrose 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

☐ 5 – 30 feet

☐ Less than 5 feet

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

- ☐ More than 100 feet
- ☐ 30 – 100 feet
- ☐ 5 – 29 feet
- ☐ Less than 5 feet

3.6. Which of the following best describes the **majority** of vegetation between 100 feet and 150 feet from your Montrose home? That area might be outside your property boundary and include properties immediately surrounding you. *(Fill in one circle)*

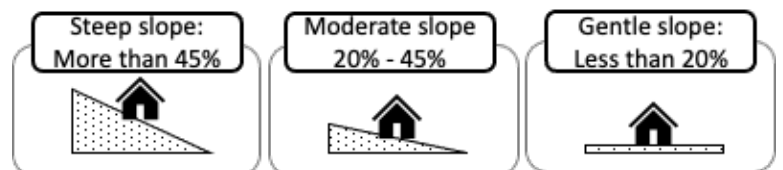
- ☐ Grasses with isolated brush
- ☐ Sparse brush and/or isolated trees (ex. sage mix with some pinion-juniper and/or ponderosa pine)
- ☐ Dense brush and/or dense trees (ex. continuous clusters of pinion-juniper and/or ponderosa pine)

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

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

3.8. The slope 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 average slope **within 150 feet** of your Montrose home? *(Fill in one circle)*

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



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

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

3.10. Do any of the following describe your driveway? My driveway... *(Fill in one circle per row)*

	No	Yes
has an overhead obstruction (ex. tree limbs) lower than 13.5 feet	☐	☐
is narrower than 20 feet wide	☐	☐
is longer than 150 feet	☐	☐
has room for a fire truck to turn around	☐	☐

3.11. Do any of the following describe your address number? My address number...
(Fill in one circle per row)

	No	Yes
is posted and visible at the end of my driveway?	☐	☐
is reflective?	☐	☐
has 4-inch-tall numerals?	☐	☐
is on a contrasting background?	☐	☐
is made of noncombustible materials?	☐	☐

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

- ☐ No
- ☐ Yes

3.13. Properties in your community are assessed for overall wildfire risk based on the items asked about in questions 3.1 – 3.12 above. What do you think your Montrose property's current overall wildfire risk rating is? *(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
Removed large or dense vegetation near my Montrose home (ex. trees, shrubs, brush)	☐	☐
Regularly cleared my roof and gutters of leaves and pine needles	☐	☐
Regularly mowed and raked around my Montrose home	☐	☐
Made my Montrose 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 preparedness activity (ex. meeting, chipper day, etc.)	☐	☐
Met with a wildfire professional at your Montrose home to evaluate and discuss your property's wildfire risk	☐	☐
Participated in a cost share program to reduce vegetation and wildfire risk through West Region Wildfire Council or another organization	☐	☐
Interacted with public land managers (ex. Colorado State Forest Service or U.S. Forest Service) about fuels reduction on nearby public lands	☐	☐

4.3. How much do you think each of the following factors increases the chances of a wildfire damaging your Montrose 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	☐	☐	☐
Lack of nearby water supply (ex. hydrant or cistern) for fire suppression	☐	☐	☐

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 are the following approaches to **reducing wildfire risk** in Montrose to you? *(Fill in one circle per row)*

	Extremely acceptable	Very acceptable	Moderately acceptable	Slightly acceptable	Not at all acceptable
Removing trees and reducing other vegetation on HOA property surrounding communities to slow the spread of wildfire (ex. fuel breaks)	☐	☐	☐	☐	☐
Removing trees and reducing other vegetation (thinning/fuel breaks) on nearby public lands	☐	☐	☐	☐	☐
Burning piles of vegetation (slash piles) on nearby public lands	☐	☐	☐	☐	☐
Conducting a prescribed fire ignited by fire professionals on nearby public lands	☐	☐	☐	☐	☐
Allowing a naturally ignited fire to burn on nearby public lands, when and where appropriate, for forest management and fire mitigation purposes	☐	☐	☐	☐	☐
Growth policies or land use regulations that limit new development in fire-prone areas in Montrose	☐	☐	☐	☐	☐
Building codes that require fire resistant materials for structures located in fire-prone areas in Montrose	☐	☐	☐	☐	☐
Development standards that require vegetation management (ex. removing or thinning trees and mowing grass) on lots located in fire-prone areas in Montrose	☐	☐	☐	☐	☐
Temporarily shutting off the power grid during extreme fire risk days to avoid new wildfire ignitions	☐	☐	☐	☐	☐
Removing vegetation along roadways for safer evacuation	☐	☐	☐	☐	☐
Building a new road(s) to provide an emergency evacuation route	☐	☐	☐	☐	☐
Managing the forest before a fire to reduce potential post-fire impacts on water resources	☐	☐	☐	☐	☐

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 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 not effective because of the heavy vegetation on my neighbors' properties.	☐	☐	☐	☐	☐
Local firefighters have sufficient resources to keep a wildfire	☐	☐	☐	☐	☐
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.	☐	☐	☐	☐	☐
Development in fire-prone areas of Montrose increases the wildfire risk to my Montrose property.	☐	☐	☐	☐	☐

5.2. If there is a wildfire on your Montrose 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 Montrose 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 Montrose 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
Montrose Fire Protection District	☐	☐	☐	☐	☐	☐
Montrose County Office of Emergency Management	☐	☐	☐	☐	☐	☐
Community group (ex. homeowners association)	☐	☐	☐	☐	☐	☐
Community wildfire ambassador	☐	☐	☐	☐	☐	☐
Local arborist/contractor	☐	☐	☐	☐	☐	☐
West Region Wildfire Council	☐	☐	☐	☐	☐	☐
Local government	☐	☐	☐	☐	☐	☐
Firewise USA®	☐	☐	☐	☐	☐	☐
Ready, Set, Go! program	☐	☐	☐	☐	☐	☐
Conservation land trusts	☐	☐	☐	☐	☐	☐
Colorado State Forest Service	☐	☐	☐	☐	☐	☐
USDA Forest Service	☐	☐	☐	☐	☐	☐
National Park Service	☐	☐	☐	☐	☐	☐
Bureau of Land Management	☐	☐	☐	☐	☐	☐
Media (newspaper, TV, radio, internet)	☐	☐	☐	☐	☐	☐
Westslopefireinfo.com	☐	☐	☐	☐	☐	☐

6.2. How do you currently receive information about wildfire risk reduction, and how would you prefer to receive information? *(Fill in all circles that apply)*

	I receive information from this source	I would like to receive information from this source
Email/e-newsletter	☐	☐
Mailed newsletter	☐	☐
Community meetings	☐	☐
Conversations with local wildfire specialists	☐	☐
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 Montrose property.

- 7.1. Do any of the following **prevent you** from taking action to reduce the wildfire risk on your Montrose property (ex. cutting trees, changing roof/siding)?
(Fill in all 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 ☐

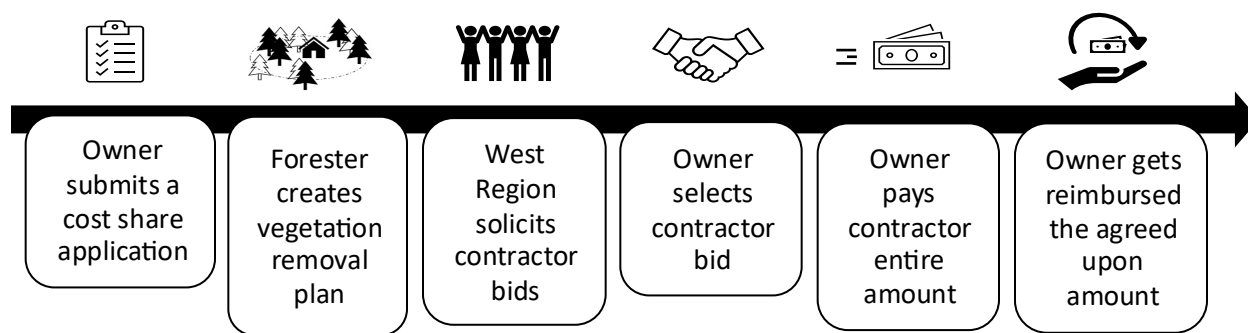
- 7.2. Would any of the following **encourage you** to take action to reduce the wildfire risk on your Montrose property? (Fill in all that apply for each row)

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 ☐

7.3. Would you reduce vegetation on your property to reduce wildfire risk if you received reimbursement for the cost? (Fill in one circle)

- ☐ No
- ☐ Yes

7.4. West Region Wildfire Council has a cost share program that includes the features shown below. The total cost of removing vegetation to reduce wildfire risk on private property is about \$3,000 per acre. After a free initial on-site consultation (aka Site Visit) with a wildfire professional, this is general process for the program:



If you would participate in this program, what is the highest amount you would be willing to pay to have a contractor remove vegetation on **the first acre** surrounding your home as a part of West Region Wildfire Council's cost share program? (Fill in one circle)

	Amount you are willing to pay	Amount the program pays
☐	\$3,000	\$0
☐	\$2,700	\$300
☐	\$2,250	\$750
☐	\$1,500	\$1,500
☐	\$750	\$2,250
☐	\$300	\$2,700
☐	\$0	\$3,000
☐	I would not participate in this program even if fully reimbursed	

7.5. How do the following cost share program features affect your decision to participate in the cost share program? *(Fill in one circle per row)*

	Makes me NOT want to participate	Does not affect my decision to participate	Makes me want to participate
Having someone develop a vegetation removal plan for me	☐	☐	☐
Reducing vegetation on my property	☐	☐	☐
Having a forester and contractor on my property	☐	☐	☐
Having to hire a contractor	☐	☐	☐
Having a contractor remove vegetation on my property	☐	☐	☐
Having to pay a portion of the total cost	☐	☐	☐
Timing of when I learn the portion of the total cost I will pay	☐	☐	☐
Timing of when I will be reimbursed	☐	☐	☐
Complexity of the program	☐	☐	☐

7.6. The cost share program requires that you pay your contractor the full cost at the time of service. Please select the maximum amount of time you would be willing or able to wait to be reimbursed by West Region Wildfire Council? *(Fill in one circle)*

- ☐ I am not willing/able to wait for reimbursement
- ☐ 5 business days from the time I pay my contractor
- ☐ 10 business days from the time I pay my contractor
- ☐ 1 month from the time I pay my contractor
- ☐ I am not concerned about reimbursement timeline as long as I am eventually reimbursed

7.7. Do you own more than one acre at your Montrose property? *(Fill in one circle)*

- ☐ No
- ☐ Yes → If the cost share program could help pay for vegetation removal to reduce risk beyond the one acre around your home, how many acres would you be willing to mitigate and how much would you be willing to pay per acre? *(Fill in each blank)*

_____ Acres _____ Dollars per acre

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 very willing to take risks or not at all 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
- ☐ Other

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. Refer to the cover letter included in your mailing for contact information if you would like to schedule an onsite visit with a wildfire professional to learn how you can reduce risk on your property.

APPENDIX B: Wildfire Research (WiRē) Assessor Reference Guide: Rapid Assessment Form, Rapid Assessment Instructions, and Data Collection Tool Instructions

Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

WiRē Assessor Reference Guide. 80

WiRē Rapid Assessment Instructions 80

Data Collection Tool Instructions. 91

Assessor Reference Guide

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What is in this guide?

The WiRē Rapid Wildfire Risk Assessment (RA) is comprised of 13 attributes that include access to the property, background fuels and topography, vegetation near the home, and building materials. Each attribute of the RA is evaluated relative to other private land parcels within the study area. As a result, the RA serves as an indicator of the relative risk of private land parcels within the study area, rather than an absolute measure of risk.

The 13 attributes are weighted and summed to produce an overall risk score for each parcel. The weights reflect the attributes' relative contribution (ranging from 1% - 30% per attribute) to overall wildfire risk, based on a 1000-point scale.

This guide provides assessors with a comprehensive guide to conducting RAs using the standard WiRē format. In Section 1, we provide the **Rapid Assessment Instructions**, guidance on how to choose which response category best reflects the condition observed at the parcel. In Section 2, we provide **Data Collection Tool Instructions** that provide detailed instructions on the mechanics of using the data collection tool. Lastly, in Section 3, we present the **Rapid Assessment Scoring** that presents the risk score for each attribute response category, the weight of the attribute within the overall risk score, and the score ranges included in each risk rating.

1 Rapid Assessment Instructions

This section presents guidance on how to choose which response category best reflects the condition observed at the parcel. Because this is a 'drive-by assessment', some of the attributes may be unobservable. For example, if the back of the house is not visible from

the road, several attributes will be unobservable (e.g., combustible attachments, other combustibles). For these instances, we include an additional response category “unknown/not observed” for all the risk attribute questions (excluding address posting, since it is observable from the road).

During data processing, we retain the unobserved status and include the attribute in the risk score by assigning the highest risk score for the attribute in question. This is consistent with other parcel risk and structure protection assessments. If a particular attribute is “unknown/not observed” or missing, practitioners and firefighters assume that a hazard exists. At best, the correct attribute response is chosen; at worst, the assessment invites a conversation with the parcel owner to delve deeper into the mitigation needs of the parcel in question and an update to their parcel risk assessment. If you observe the attribute, but are unsure of the correct response category, choose the riskiest option.

In the remainder of this section, we present a set of tables (Tables 1 to 5, respectively) organized by the categories: general information, access, background conditions, defensible space, and home ignition potential. Each table includes the following:

- Background information about the risk attribute,
- the response categories and associated risk scores,
- additional information on how to select a response category for a given property.

Table 1. General information

Attribute (variable name)	Response categories	Attribute suggestions
Type of structure (structure_type) <i>This variable helps WiRē understand whether to send a household survey to the parcel. As part of the WiRē process, we only send household surveys to properties that contain a residential structure.</i>		
What is the primary use of this structure?	Residential	Select the structure type that best reflects that observed use. Ex: Is it used as a home or living area (Residential), is it used as a business (Commercial), is it used to manufacture goods or a type of industrial site (Industrial)?
	Commercial	
	Industrial	
	Mixed use	
	No structure/ vacant lot	
	Other	

Table 2. Risk attributes related to access

Risk attribute (variable name)	Response categories	Score	Attribute measurement suggestions
Address posting (address) <i>A clearly visible address sign, that remains visible in the dark (e.g., night, smoky) is critical for safe and effective emergency response, particularly for EMS.</i>			
Does the address sign meet the standards? - Posted at the end of the driveway - Reflective - Has 4-inch numerals - On a contrasting background - Made of noncombustible materials	Meets all standard	0	Use this category if the address sign fully meets or exceeds the standards.
	Partially meets standards	5	Use this category if the address sign is visible from the road but does not meet all standards (ex: it is not reflective).
	No visible address	10	Use this category if the address sign either (A) does not appear to exist or (B) is not visible. Use this category regardless of whether the address sign meets the standard.
Ingress/Egress (access_roads) <i>Safe and effective ingress and egress is a critical component to community planning as well as emergency response and evacuation. In certain locations there may be more than one road out from the immediate house, but over some distance, these multiple roads may funnel into a single ingress/egress route. It will be up to the assessor's discretion (and should be standardized across assessors prior to beginning data collection) to determine what is considered a viable route to a safe location.</i>			
If the road to access the home was blocked due to a wildfire, is there another road to get out of the community?	Two or more roads available	0	Use this category if the property has more than one ingress/egress route that reaches a location considered safe in the event of a wildfire. See note in the next column about interconnected routes.
	One road available	10	Use this category if the property has just one ingress/egress route that reaches a location considered safe in the event of a wildfire. See note in the next column about interconnected routes.
	Unknown - not observed	10	If you cannot observe the attribute at all, choose "Unknown - not observed."

Table 2. Risk attributes related to access

Risk attribute (variable name)	Response categories	Score	Attribute measurement suggestions
Driveway clearance (driveway_clr) <i>The rationale behind this attribute is related to emergency access, and in particular, access to the property by wildland fire engines, structure fire apparatus, and other emergency responders. Under ideal circumstances, each driveway should provide enough horizontal width so that two vehicles can easily pass one another along the driveway and enough vertical clearance so fire apparatus is able to pass through.</i> <i>NOTE: this table currently presents the general standards and will be customized to include the local standards of the community</i>			
Does the driveway meet the following clearance standards: height at least 13.5' and width at least 20'?	Driveway clearance is at least 20ft wide and 13.5ft high	0	Height (vertical standard): Overhanging tree branches or ranch-style gateways can create vertical obstructions. The vertical standard for this assessment is 13.5 feet. Width (horizontal standard): Width refers to horizontal obstruction-free clearance that would permit vehicle access, not just road base. E.g., if driveway road base is 12' wide and bordered by flat ground that could easily be driven on by any firefighting vehicle, with no obstructions for at least 4' on each side (20' total), driveway meets width standard. However, if there are obstructions, such as vegetation, driveway gateways or anything else that would make it difficult or impossible for two vehicles to pass each other along the driveway, at any point, then the assessor should rate this domain as either "Meets one, but not both, standards (height or width)" or "Does not meet either standard (height and width)" depending on an observational estimate of the width of the driveway.
	Meets one, but not both, standards (height or width)	5	
	Does not meet either standard (height and width)	10	
	Unknown - not observed	10	If you cannot observe the attribute at all, choose "Unknown - not observed."

Table 2. Risk attributes related to access

Risk attribute (variable name)	Response categories	Score	Attribute measurement suggestions
Driveway length (driveway_len) <i>The longer the driveway, the more risk exposure for responders.</i> <i>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.</i>			
What best describes the driveway?	Less than 150' long	0	Length may be estimated by driving down the driveway (which will be very helpful to answer several other additional questions) or visual estimate.
	150ft or more with "adequate" turnaround	5	"Adequate" indicates that a turnaround exists that meets or exceeds the local FPD/county/relevant jurisdictional standards for emergency vehicle turnarounds.
	150ft or more without "adequate" turnaround	10	
	Unknown - not observed	10	If you cannot observe the attribute at all, choose "Unknown - not observed."

Table 3. Risk attributes related to background conditions

Risk attribute (variable name)	Response categories	Score	Attribute measurement suggestions
Distance to dangerous topography (topo) <i>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, 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 those homes that are situated back and away from such features.</i> <i>This category has a perceived overlap with the slope category. However, slope is designed to capture the "grade" of the land, and this category is focused on specific topographic features.</i>			
What is the closest distance from the home to a ridge, steep drainage, or narrow canyon?	More than 150ft	0	The goal of this attribute is to assess the relative proximity of the home to any observed topographical feature.
	50ft – 150ft	25	
	Less than 50ft	50	
	Unknown - not observed	50	If you cannot observe the attribute at all, choose "Unknown - not observed."

Table 3. Risk attributes related to background conditions

Risk attribute (variable name)	Response categories	Score	Attribute measurement suggestions
Slope or grade (slope) <i>The overall slope of the land where the home is situated has a significant influence in how wildfire will likely behave. 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.</i>			
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 slope within 150 feet of the home?	Gentle - less than 20%	0	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 home at the center of the transect. There will then be 150 feet of distance along the transect, in either direction, from the center of the home. Orient the transect 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 from 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 38 ft elevation change between the two ends of the transect then your percent slope is $38/300=12.66\%$. If you estimate a 120 ft elevation change then the percent slope is equal to $120/300= 40\%$. PLEASE NOTE THE DIFFERENCE BETWEEN PERCENT SLOPE AND DEGREES.
	Moderate - between 20% - 45%	10	
	Steep - greater than 45%	20	
	Unknown - not observed	20	

Table 3. Risk attributes related to background conditions

Risk attribute (variable name)	Response categories	Score	Attribute measurement suggestions
Adjacent fuels (adjfuels) <i>Fuels are one of the three categories on the wildfire behavior triangle.</i> <i>This attribute looks at a proxy of fuel type and fuel load/density. 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 attribute is subject to a significant amount of assessor interpretation and subjectivity.</i> <i>NOTE: this table will be customized to include descriptions of local vegetation.</i>			
Which of the following best describes the dominant vegetation 100' - 150' from the home? <i>This may be outside the property boundary.</i>	Grasses with isolated brush	0	Within a band starting at 100' from the home (limits of defensible space) and extending out to 150' from the home, in all directions, estimate what is the dominant and primary fuel description. By "dominant and primary" we mean the fuels that are likely to play the greatest role in fire behavior, were those fuels to become involved in a fire.
	Sparse brush and/or isolated trees (ex. sage mix with some pinion-juniper and/or ponderosa pine)	20	
	Dense brush and/or dense trees (ex. continuous clusters of pinion-juniper and/or ponderosa pine)	40	
	Unknown - not observed	40	If you cannot observe the attribute at all, choose "Unknown - not observed."

Table 4. Risk attributes related to defensible space

Risk attribute (variable name)	Response categories	Score	Attribute measurement suggestions
Defensible space (dspace) <i>Primary experimental research from the International Crown Fire Modeling Experiment (1998) demonstrated that 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 at a distance as little as 10 meters (32.8 ft), without direct flame contact, but did ignite when the structure was exposed to direct flames. At 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 ft) / Zone 2 (30-100 ft) / Zone 3 (100 ft or more with slope factor). Additional understanding and research have led to a fuller understanding of ignition vulnerabilities for the home (primarily related to ember ignitions). The 5-ft zone should be devoid of all combustible materials (including bark mulch or combustible vegetation).</i>			
What is the closest distance from the home to overgrown, dense, or unmaintained vegetation?	More than 100ft	0	The assessor must use their best professional judgement to determine the distance between the home and any "overgrown, dense or unmaintained vegetation." It is important to consider whether the property's <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 5ft, 30ft, or 100ft of the home?
	30ft – 100ft	50	
	5ft – 29ft	75	
	Less than 5ft	100	
	Unknown - not observed	100	If you cannot observe the attribute at all, choose "Unknown - not observed."
Other combustibles (combustibles) <i>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.</i>			
What is the closest distance from the home to combustible items <i>other than vegetation</i> such as lumber, firewood, a propane tank, hay bales, or other materials that could easily ignite?	More than 30ft or no combustible items	0	Are there any other combustible materials that a structure triage group would likely want to remove/clean up in the event of an approaching 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 are these items?
	5ft – 30ft	40	
	Less than 5ft	80	
	Unknown - not observed	80	If you cannot observe the attribute at all, choose "Unknown - not observed."

Table 5. Risk attributes related to home ignition potential

Risk attribute (variable name)	Response categories	Score	Attribute measurement suggestions
Roofing materials (roof) <i>The roof plays a major role in the vulnerability of the home to fire, particularly airborne embers, which can burn through roofing.</i> <i>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 (such as an on-site consultation with the homeowner), 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 vents/openings should at minimum incorporate 1/8" metal screening. Gutters filled with debris can be tinder for fire.</i>			
What is the most vulnerable roofing material?	Tile, metal, or asphalt shingles	0	Tile, metal, or asphalt shingles are commonly associated with a Class A roofing assembly - though not in all cases. Tar or rubberized roofs are 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 decide using best available information related to the roofing material and its potential ignitability. In other instances, multiple types of roofing materials are used, particularly 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.
	Wood (shake shingles)	300	
	Unknown - not observed	300	If you cannot observe the attribute at all, choose "Unknown - not observed."

Table 5. Risk attributes related to home ignition potential

Risk attribute (variable name)	Response categories	Score	Attribute measurement suggestions
Building siding/Exterior walls (siding) <i>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.</i> <i>This is probably the most challenging domain to assess during the RA, for many reasons including 1) there are dozens of commonly used siding materials, many of which claim to be resistant to fire, resistant to ignition, or noncombustible; 2) it is very common for a home to incorporate multiple different types of exterior cladding/siding; 3) some of the newer available products that fall in the general category of "fiber cement siding" have been designed to mimic wood; and 4) not all stucco applications meet fire resistant standards.</i> <i>It is up to the assessor to decide if any exterior cladding/siding represents a potential risk for home ignition.</i>			
What is the most vulnerable exterior siding material?	Stucco, cement, brick, stone, or other non-combustible siding	0	This category includes brick, stone, block, concrete synthetic stone, metal, stucco (3 stage or EIFS), fiber cement (ex, Hardie Board) or other materials that are considered Class A or B.
	Log or heavy timbers	35	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.
	Wood or vinyl siding	70	Wood or vinyl siding only. Faux logs, D-Link, and square logs qualify for this category.
	Unknown - not observed	70	If you cannot observe the attribute at all, choose "Unknown - not observed."

Table 5. Risk attributes related to home ignition potential

Risk attribute (variable name)	Response categories	Score	Attribute measurement suggestions
Combustible attachments (attachments) <i>Decks, fences, and other attachments are well known to be considerable sources of home ignition vulnerability.</i> <i>Attached decks, fence, and other attachments s are 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.</i>			
Does the home have a combustible balcony, deck, porch, or fence attached to the structure?	None	0	If no balcony, deck, porch, or fence is attached to the structure, then the answer is no. If a deck, fence, or other attachment is present, the assessor will need to determine to what extent the attachment 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 categorizing composite decking as "combustible."
	Yes (Balcony, deck, fence, etc.)	100	
	Unknown - not observed	100	If you cannot observe the attribute at all, choose "Unknown - not observed."
Proximity to adjacent/neighboring homes (closehome) <i>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 vulnerable locations where embers can get trapped and combust, and then pass the fire to neighboring properties.</i>			
What is the closest distance to a neighboring home?	More than 100ft	0	When assessing the home, determine the relative proximity of the nearest home.
	30ft – 100ft	50	
	10ft – 29ft	100	
	Less than 10ft	200	
	Unknown - not observed	200	If you cannot observe the attribute at all, choose "Unknown - not observed."

2 Data Collection Tool Instructions

Before starting the WiRē rapid wildfire risk assessments (RAs), it's important to remember the strong tie between the RA and the homeowner survey. The driving principle behind the paired data collection approach is to empower residents to take action to reduce their wildfire risk.

Be consistent with the response categories throughout data collection. The goal of the WiRē RAs is to assess all parcels with residential and commercial structures in the Montrose Fire Protection District.

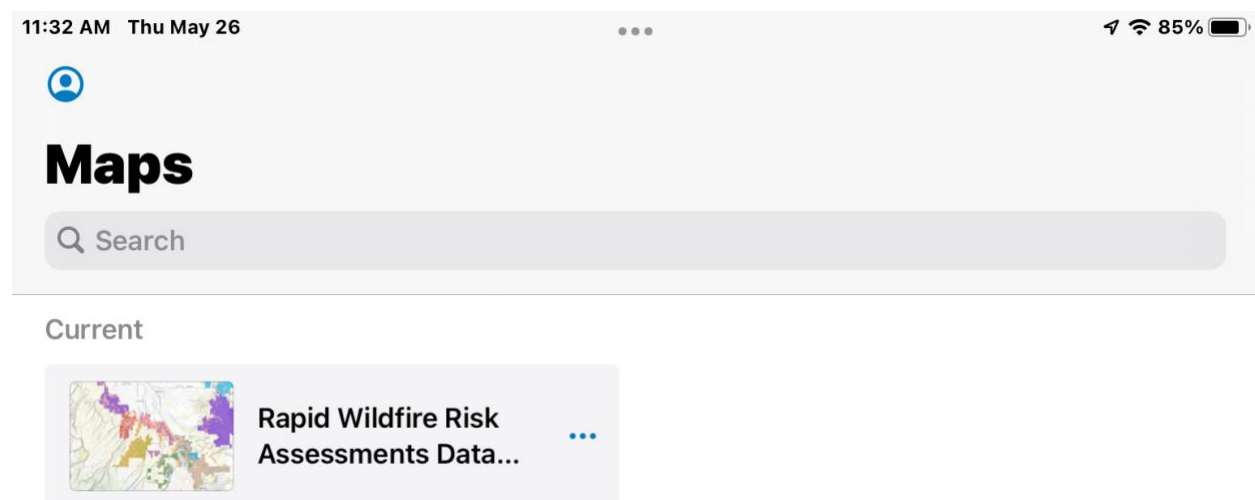
Requirements:

- A mobile device like iPad, iPhone or Android Phone.
- An ArcGIS Online account. <https://www.arcgis.com/index.html>
- ArcGIS Field Maps is installed on your iPad or other device.



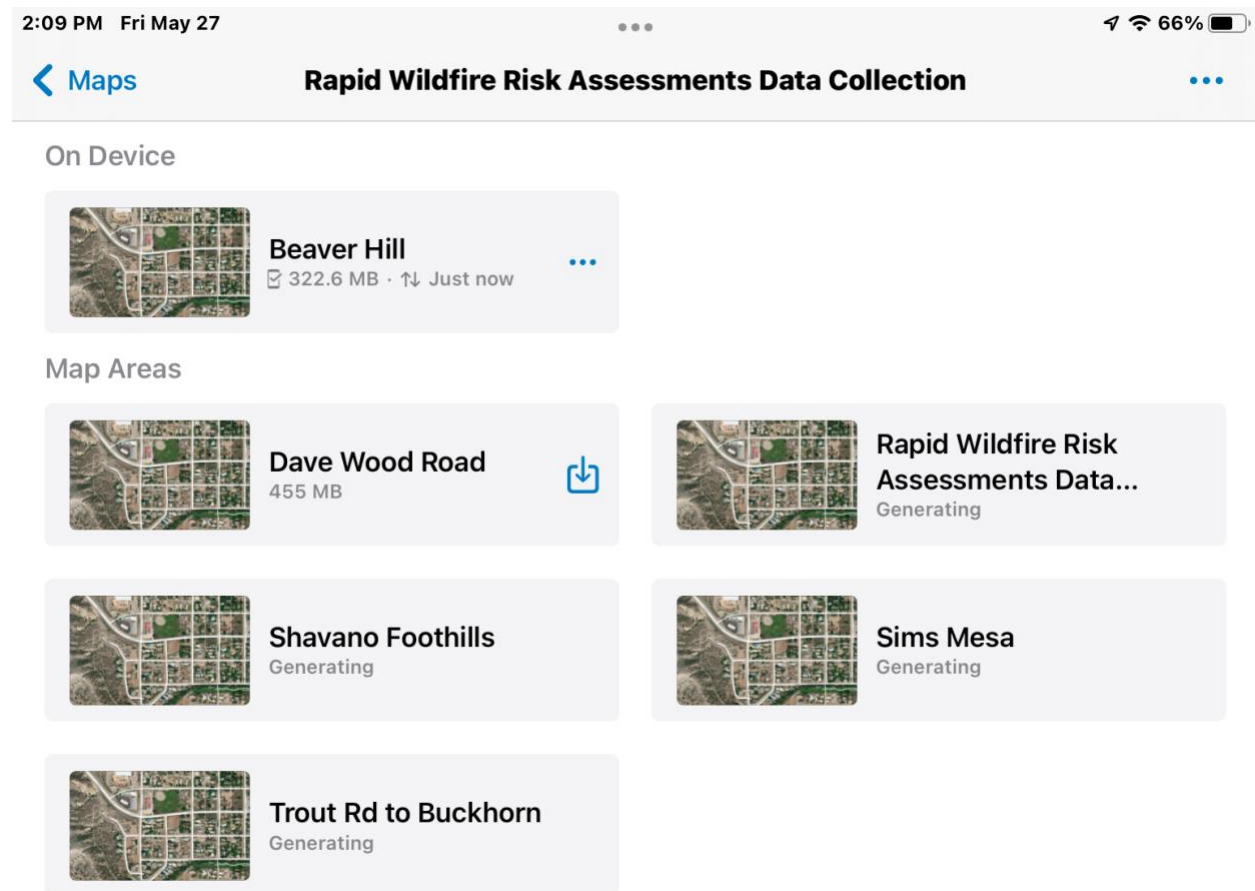
- Ensure you have joined the West Region Wildfire Council's "Rapid Wildfire Risk Assessment Group" through ArcGIS online. You can request access at this link: <https://cowildfire.maps.arcgis.com/home/group.html?id=d73aa5de4bc34ee7870e35ed671d99fb#overview>

Once logged into Field Maps, you should have access to the 'Rapid Wildfire Risk Assessment Data Collection Tool'.



Offline Areas:

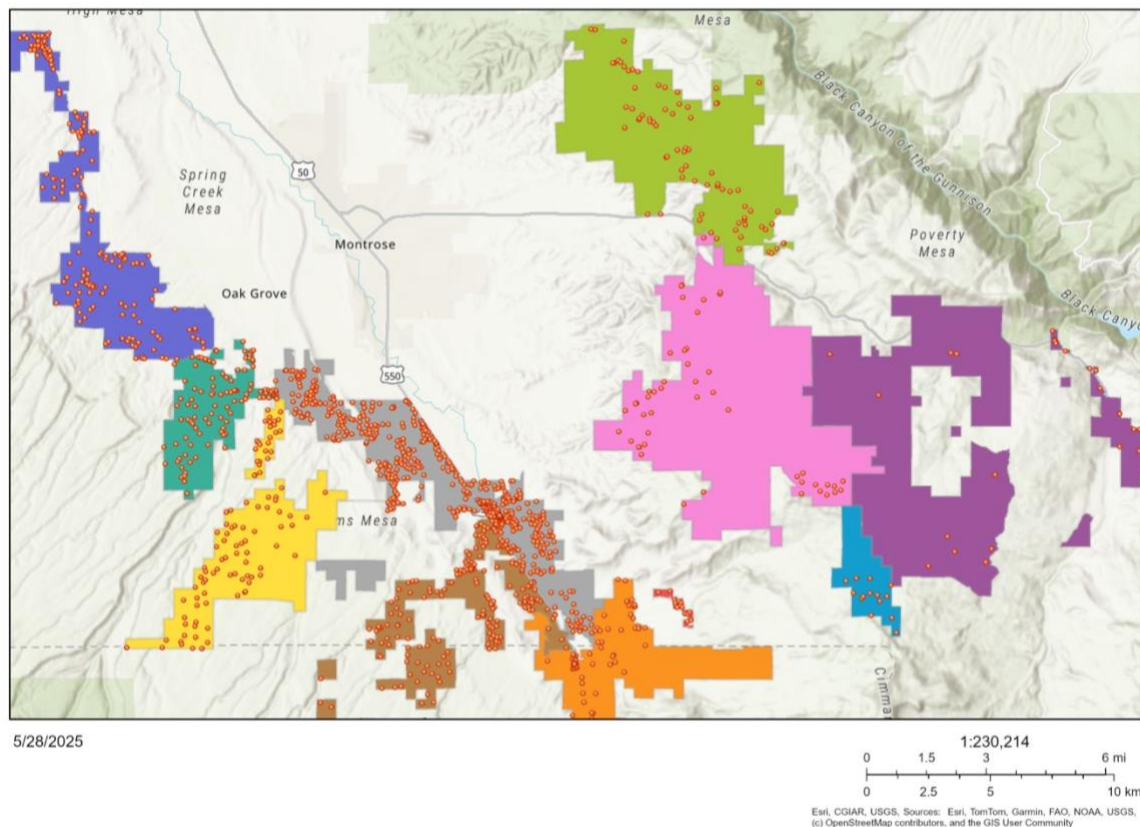
You will have to download the areas before the map will open.



Targeted Areas:

The targeted structures points will be visible as colored house icons inside a circle. Our intention is to collect data on every residential and commercial building in our targeted neighborhoods. We do not intend to collect data on out buildings such as sheds, workshops, greenhouses, etc. unless that is attached to an occupied structure.

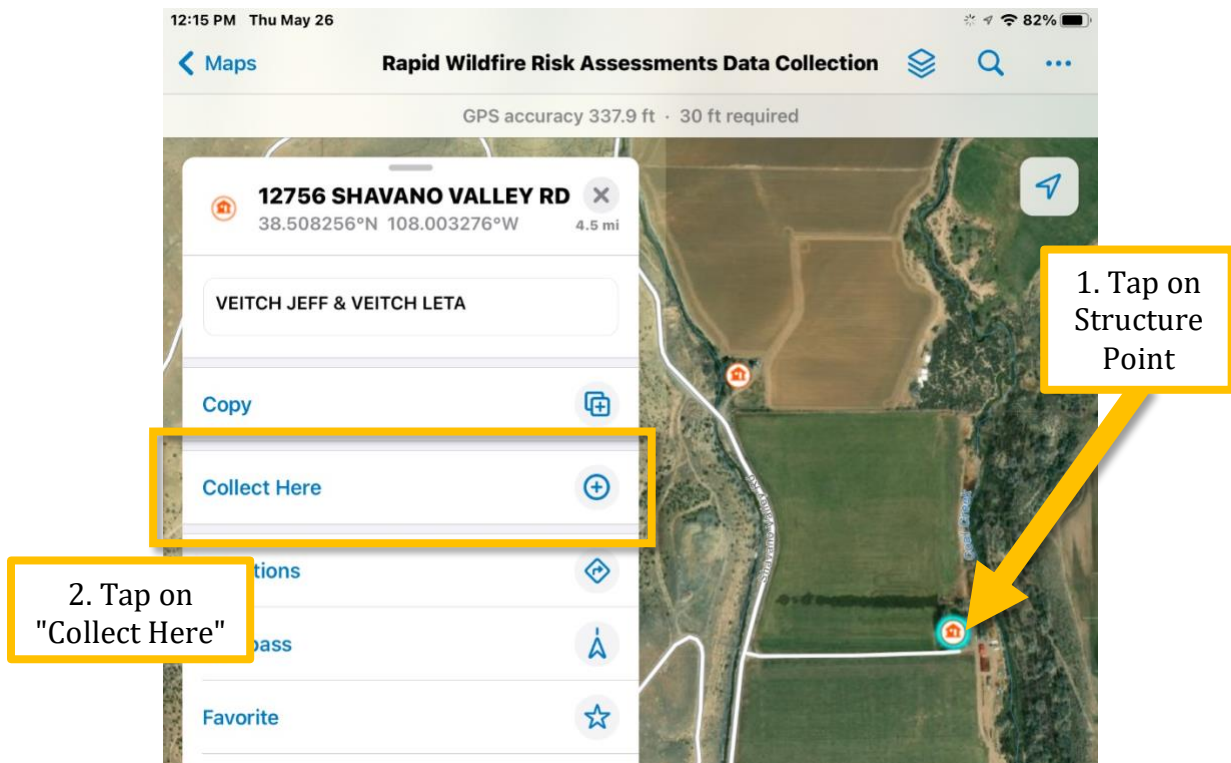
The brightly colored polygons are the boundaries of our targeted neighborhoods. As you zoom in they will disappear to give you better view of the underlying base map.



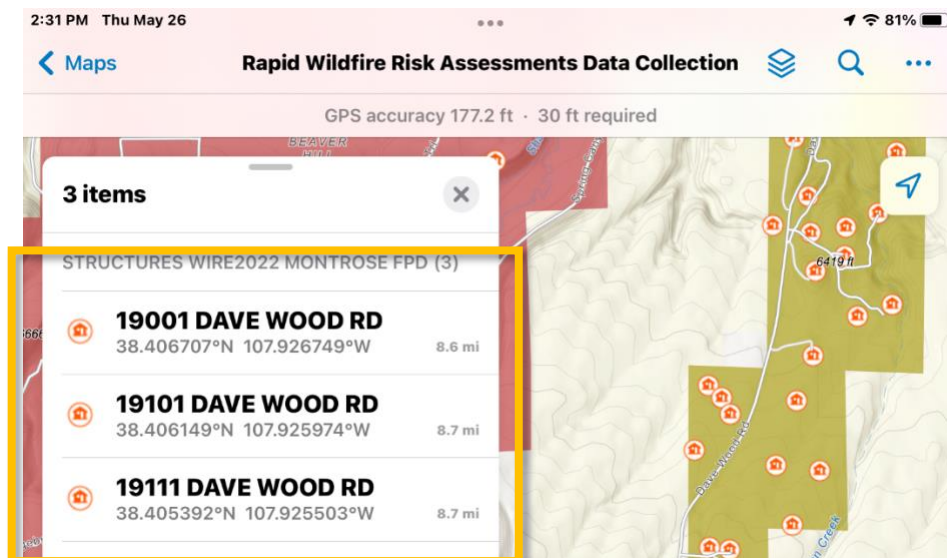
If you have location services enabled on your device and give Field Maps permission, your location will be shown as a blue dot and will automatically zoom in and follow you as you move around. GPS or other location services are not required but make it easier to find the correct structures on the map. Use two fingers to pinch together or apart to zoom in/out.

Collecting an Assessment:

1. Tap on a structure point. This will bring up a popup with some options.
2. Tap on "Collect Here"



2a. It's possible there are multiple structure points at the location you select. In that case, a list of features will be shown. Either zoom in for more accuracy when selecting on the map, or select the desired address from the list.



3. The Rapid Assessment form pops up from the bottom. It will slide up as you start to scroll through the options.

Scroll through, answering each question as you go. Each question will have a brief description below the answer section for reference. You should also refer to section 3 of this document for further details.

The left screenshot shows a map view with a location pin and a red circle around it. The right screenshot shows the assessment form with fields for Type of Structure, Address Posting, and Ingress/Egress Access Roads.

3a. Optional: Taking a photo or attaching a file are supported but not required. If a photo is taken, it should show the end of the driveway and address posting.

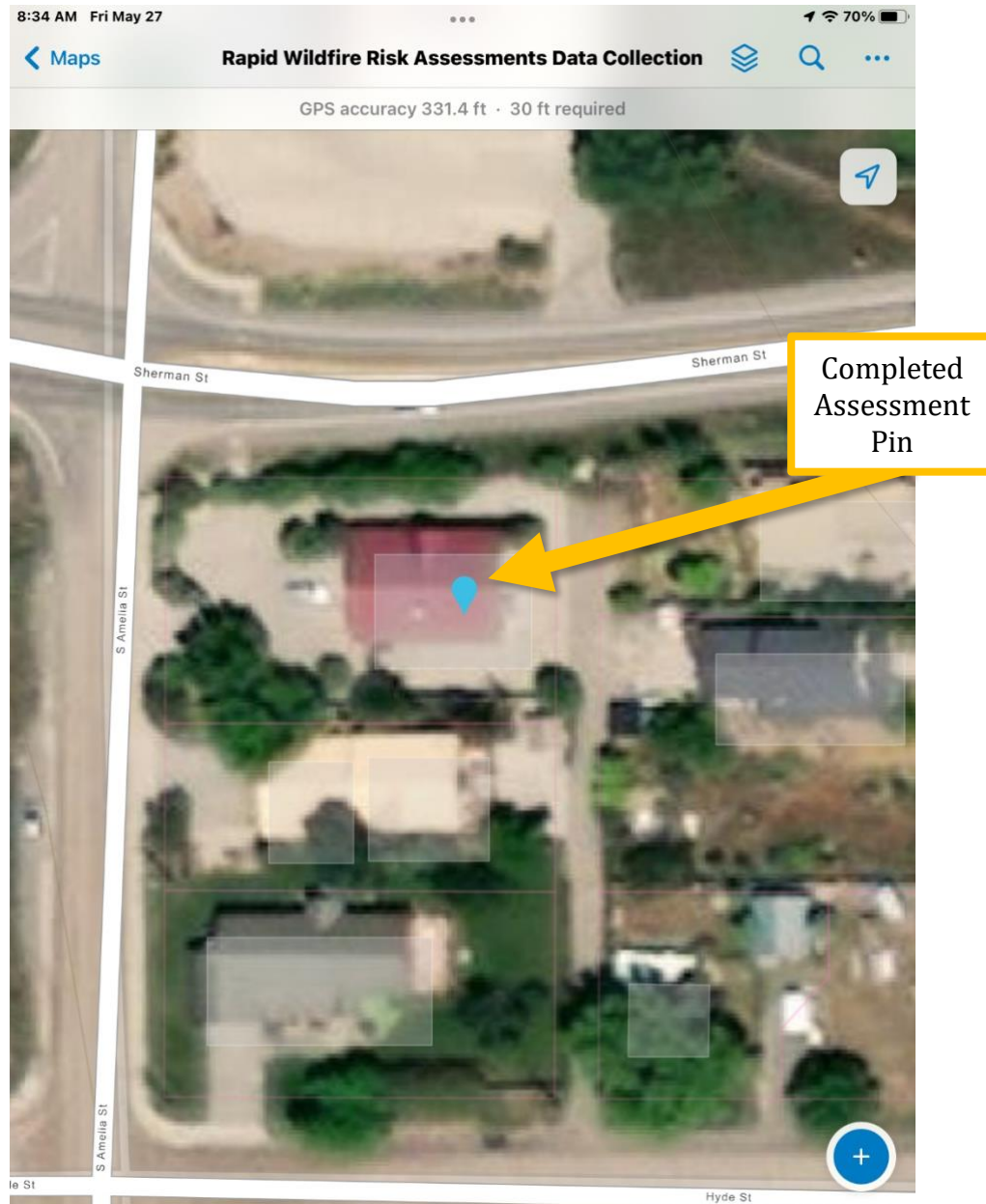
4. Once complete, tap the "Submit" button at the top right of the screen.

The screenshot shows the 'Submit' button at the top right of the screen, highlighted with a yellow box.

4a. If the assessment is being taken in error, you can also cancel out of the form by instead tapping "Cancel" in the top left.

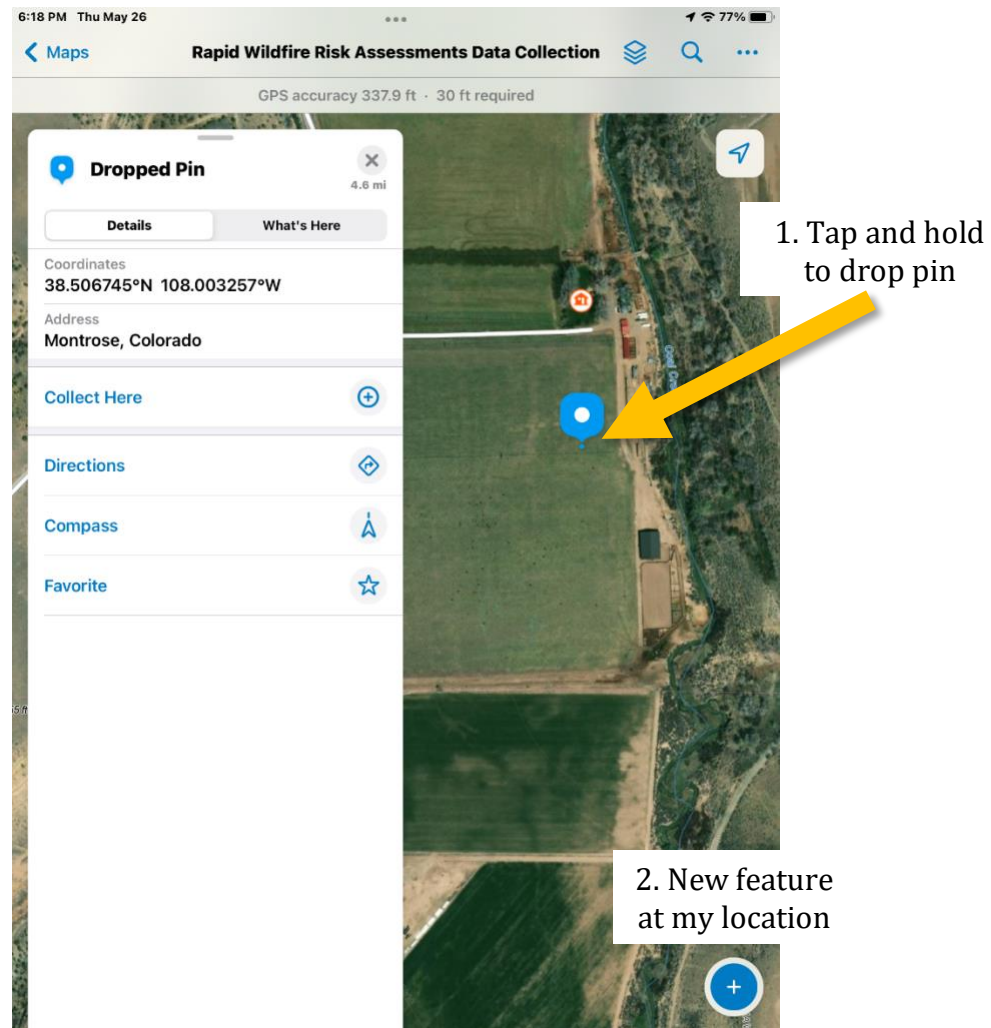
Congrats! You now have successfully completed a Rapid Wildfire Risk Assessment. A blue pin will appear on the map showing the location of the assessment.

Data will automatically sync when your device next connects to a network. It may take 15-20 minutes but can be much quicker. Once data is synced, you will see all assessments that have been completed on the map from all assessors.



Optional methods for taking an assessment:

1. Tap and hold a location on the map. Will drop a pin and pop up a menu where you can select "collect here".
2. Add feature at my current location, Blue (+) button, lower right.



3 Rapid Assessment Scoring

	Risk attribute	Response categories	Attribute weight	Category score
Access	Address posting	Fully meets standard	1%	0
		Address sign is visible, but does not meet all standards		5
		Not posted/visible from the primary road		10
	Ingress/Egress	Two or more roads in/out	1%	0
		One road in/out		10
	Driveway clearance	Meets all driveway standards. Meets both height (at least 13.5') and width clearance (at least 20')	1%	0
		Meets one, but not both, standards (height or width)		5
		Does not meet either standard (height and width)		10
	Driveway length	Less than 150' long	1%	0
		150' or more with "adequate" turnaround		5
		150' or more without "adequate" turnaround		10

Background conditions

Distance to dangerous topography	More than 150'	5%	0
	50' - 150'		25
	Less than 50'		50
Slope	Gentle - Less than 20%	2%	0
	Moderate - Between 20% and 45%		10
	Steep - Greater than 45%		20
Adjacent fuels	Light - <description of local vegetation>	4%	10
	Medium - <description of local vegetation>		20
	Dense - <description of local vegetation>		40

	Risk attribute	Response categories	Attribute weight	Category score
Defensible space	Defensible Space	More than 100'	10%	0
		30' - 100'		50
		5' - 29'		75
		Less than 5'		100
	Other combustibles	More than 30' or no combustible items	8%	0
		5' - 30'		40
Less than 5'		80		

Home ignition potential	Roofing materials	Tile, metal, or asphalt shingles	30%	0
		Wood (shake shingles)		300
	Building exterior	Stucco, cement, brick, stone, or other noncombustible siding	7%	0
		Log or heavy timbers		35
		Wood or vinyl siding		70
	Combustible attachments	No combustible attachments	10%	0
		Combustible attachments present		100
	Proximity to adjacent homes	More than 100'	20%	0
		30' - 100'		50
		10' - 29' away		100
		Less than 10'		200

Overall Risk Rating		
Category	Lower bound	Upper bound
Low	20	240
Moderate	241	305
High	306	435
Very high	436	505
Extreme	506	1000

APPENDIX C: Wildfire Research (WiRē) Rapid Assessment Summary

Begins on next page.

The West Region Wildfire Council Rapid Assessment Summary

The West Region Wildfire Council¹ mitigation specialists conducted parcel-level rapid wildfire risk assessments in 2022. Risk assessment data collection was collected as a census of all residential properties with a structure in the study area². The rapid wildfire risk assessments were conducted for 1260 residential properties using the standard WiRē Rapid Wildfire Risk Assessment (RA), which is comprised of a set of 13 attributes that includes building materials, vegetation near the home, background fuels and topography, and access to the property. Each attribute of the RA is evaluated relative to other private land parcels within the study area. As a result, the RA serves as an indicator of the relative risk of private land parcels within the study area, rather than an absolute measure of risk.

The 13 attributes are weighted and summed to produce an overall risk score for each parcel. The weights reflect the attributes' relative contribution (ranging from 1%–30% per attribute) to overall wildfire risk. Following our process for a standard RA, we apply a standard approach for placing the overall risk scores into five risk categories: low (20-260), moderate (261–325), high (326–455), very high (456–540), extreme (541–1,000). This process can be iterative over time but has been validated across previous WiRē projects.

To ensure consistent, high quality data collection West Region Wildfire Council conducted a training for those who would conduct the rapid risk assessments. WiRē produced a standardized reference sheet for data collectors 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 impact the rapid assessment data collection process, West Region Wildfire Council is confident that the rapid assessments collected for this project provide an accurate representation of relative wildfire risk to the parcels in the study area.

In instances when West Region Wildfire Council mitigation specialists could not observe a risk attribute, the specialist selected “unknown/not observed.” It is WiRē’s protocol to

¹ This project was completed in cooperation with Montrose Fire Protection District, Ridgway Volunteer Fire Department, Montrose County Sheriff's Office, Colorado Division of Fire Prevention and Control, Colorado State Forest Service, and the Bureau of Land Management.

² Montrose and Ouray County Assessor data from May 2022 was used as the underlying dataset to collect data.

** This project was supported with funding from USDA Forest Service, Washington Office Fire and Aviation Management.*

**All data received and processed as of January 31, 2023*

**Document prepared February 2, 2023*

assign the “unknown/not observed” and true missing data (i.e., the mitigation specialist did not select a response) the highest risk score for the attribute in question. This is consistent with other parcel risk and structure protection assessments. If a particular attribute is “unknown/not observed” or missing, practitioners and firefighters assume that a hazard exists. At best, the correct attribute response is chosen; at worst, the assessment invites a conversation with the parcel owner to delve deeper into the mitigation needs of the parcel in question and an update to their parcel risk assessment.

This protocol allows us to report results for all residential parcels in the study area rather than only those for which all attributes could be observed. For each risk attribute in the tables below, we report the number of “unknown/not observed” and missing as a footnote.

The following tables present a summary of the West Region Wildfire Council mitigation specialists’ responses to the 13 risk attributes in the RA. Additionally, the tables present the results of the overall wildfire risk rating, which is the sum of the attribute scores. The percentages might not add to 100% due to rounding.

1.1 Overall risk rating

Overall risk rating:				
RA: Based on the sum of the 13 attribute scores.				
Response categories	Score range	Number (N = 1260)	% of all RAs in study area	
Low	20-260	621	49%	
Moderate	261-325	338	27%	
High	326-455	241	19%	
Very high	456-540	15	1%	
Extreme	541-1000	45	4%	

1.2 Home ignition potential

Risk attribute: Roof (30% of total RA score)

What is the most vulnerable roofing material?

Response categories	Score	Number (N = 1260)	% of all RAs in study area	
Tile, metal, or asphalt shingles	0	1213	96%	
Wood (shake shingles)	300	47	4%	

* Out of all RAs in study area, 45 were missing/unobserved (4%) and included in the highest risk category.

Risk attribute: Siding (7% of total RA score)

What is the most vulnerable exterior siding material?

Response categories	Score	Number (N = 1260)	% of all RAs in study area	
Stucco, cement, brick, stone, or other noncombustible siding	0	294	23%	
Log or heavy timbers	35	40	3%	
Wood or vinyl siding	70	926	73%	

* Out of all RAs in study area, 92 were missing/unobserved (7%) and included in the highest risk category.

Risk attribute: Combustible attachments (10% of total RA score)

Does the home a combustible balcony, deck, or fence attached to the structure?

Response categories	Score	Number (N = 1260)	% of all RAs in study area	
No combustible attachments	0	489	39%	
Combustible attachments present	100	771	61%	

* Out of all RAs in study area, 141 were missing/unobserved (11%) and included in the highest risk category.

Risk attribute: Distance to adjacent homes (20% of total RA score) What is the closest distance to a neighboring home?				
Response categories	Score	Number (N = 1260)	% of all RAs in study area	
More than 100'	0	1200	95%	
30' - 100'	50	48	4%	
10' - 29' away	100	7	1%	
Less than 10'	200	5	0%	
* Out of all RAs in study area, 5 were missing/unobserved (<1%) and included in the highest risk category.				

1.3 Defensible space

Risk attribute: Distance to overgrown vegetation (0 – 100 ft) (10% of total RA score) What is the closest distance from the home to overgrown, dense, or unmaintained vegetation?				
Response categories	Score	Number (N = 1260)	% of all RAs in study area	
More than 100'	0	209	17%	
30' - 100'	50	181	14%	
5' - 29'	75	437	35%	
Less than 5'	100	433	34%	
* Out of all RAs in study area, 111 were missing/unobserved (9%) and included in the highest risk category.				

Risk attribute: Distance to other combustibles (non-vegetation) (8% of total RA score)

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?

Response categories	Score	Number (N = 1260)	% of all RAs in study area	
More than 30' or no combustible items	0	685	54%	
5' - 30'	40	249	20%	
Less than 5'	80	326	26%	

* Out of all RAs in study area, 127 were missing/unobserved (10%) and included in the highest risk category.

1.4 Background conditions

Risk attribute: Distance to dangerous topography (5% of total RA score)

What is the closest distance from the home to a ridge, steep drainage, or narrow canyon?

Response categories	Score	Number (N = 1260)	% of all RAs in study area	
More than 150'	0	1178	93%	
50' - 150'	25	17	1%	
Less than 50'	50	65	5%	

* Out of all RAs in study area, 6 were missing/unobserved (<1%) and included in the highest risk category.

Risk attribute: Slope (2% of total RA score)

The slope 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 slope of the property within 150' of the home?

Response categories	Score	Number (N = 1260)	% of all RAs in study area	
Gentle - Less than 20%	0	905	72%	
Moderate - Between 20% and 45%	10	186	15%	
Steep - Greater than 45%	20	169	13%	

* Out of all RAs in study area, 6 were missing/unobserved (<1%) and included in the highest risk category.

Risk attribute: Adjacent fuels (100 - 150 ft) (4% of total RA score)

Which of the following best describes the dominant vegetation 100' to 150' from the home? This may be outside the property boundary.

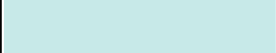
Response categories	Score	Number (N = 1260)	% of all RAs in study area	
Light	10	268	21%	
Medium	20	646	51%	
Dense	40	346	27%	

* Out of all RAs in study area, 6 were missing/unobserved (<1%) and included in the highest risk category.

1.5 Access

Risk attribute: Address posting (1% of total RA score)

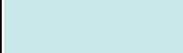
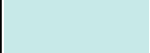
Does the address sign meet all local standards (Posted, blue reflective, visible from the road)

Response categories	Score	Number (N = 1260)	% of all RAs in study area	
Fully meets standard	0	100	8%	
Address sign is visible, but does not meet all standards	5	1059	84%	
Not posted/visible from the primary road	10	101	8%	

* Out of all RAs in study area, 1 was missing/unobserved (<1%) and included in the highest risk category.

Risk attribute: Ingress/egress (1% of total RA score)

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

Response categories	Score	Number (N = 1260)	% of all RAs in study area	
Two or more roads in/out	0	693	55%	
One road in/out	10	567	45%	

* Out of all RAs in study area, 51 were missing/unobserved (4%) and included in the highest risk category.

Risk attribute: Driveway clearance (1% of total RA score)

Does the driveway meet the horizontal and vertical clearance standards: height at least 20' and width at least 12'?

Response categories	Score	Number (N = 1260)	% of all RAs in study area	
Meets all driveway standards. Meets both height (at least 13.5') and width clearance (at least 20')	0	1131	90%	
Meets one, but not both, standards (height or width)	5	78	6%	
Does not meet either standard (height and width)	10	51	4%	

* Out of all RAs in study area, 3 were missing/unobserved (3%) and included in the highest risk category.

Risk attribute: Driveway length (1% of total RA score)

What best describes the driveway?

Response categories	Score	Number (N = 1260)	% of all RAs in study area	
Less than 150' long	0	494	39%	
150' or more with "adequate" turnaround	5	661	52%	
150' or more without "adequate" turnaround	10	105	8%	

* Out of all RAs in study area, 53 were missing/unobserved (4%) and included in the highest risk category.

APPENDIX D: Comparison of Wildfire Research (WiRē) Rapid Assessment and Household Survey

Begins on next page.

West Region Wildfire Council Rapid Assessment Compared to Household Survey Responses

West Region Wildfire Council conducted parcel-level rapid wildfire risk assessments and administered a household survey in 2022. The rapid assessment provides the professional's risk rating for each parcel, and the household survey provides, among other things, respondent's self-assessed risk for their own parcel. Pairing these data is the heart of the WiRē Approach because it allows us to analyze the risk gap between how professionals rate wildfire risk and how survey respondents (i.e., homeowners) perceive their risk.

Overall, there are 262 properties for which we have a rapid assessment paired with household survey. There are an additional 998 properties with only a rapid assessment, for a total of 1,260 rapid assessments in the study area. Within this document, we present the following:

- Section 1 provides graphs that compare the professional risk ratings from the rapid assessment to the self-assessed risk ratings from the paired household survey.
- Section 2 provides tables that provide a three-way comparison of risk ratings from all rapid assessments in the study area, the subset of rapid assessments for which there is a paired household survey, and the household survey self-assessment.

Section 1 and Section 2 are organized by overall risk rating, followed by the attribute-level risk ratings. The attribute-level risk ratings are grouped into the following categories: access, background conditions, defensible space, and home ignition potential.

**This project was funded by USDA Forest Service, Washington Office Fire and Aviation Management. The household survey administration was paid for by the University of Colorado via a CU Outreach Award.*

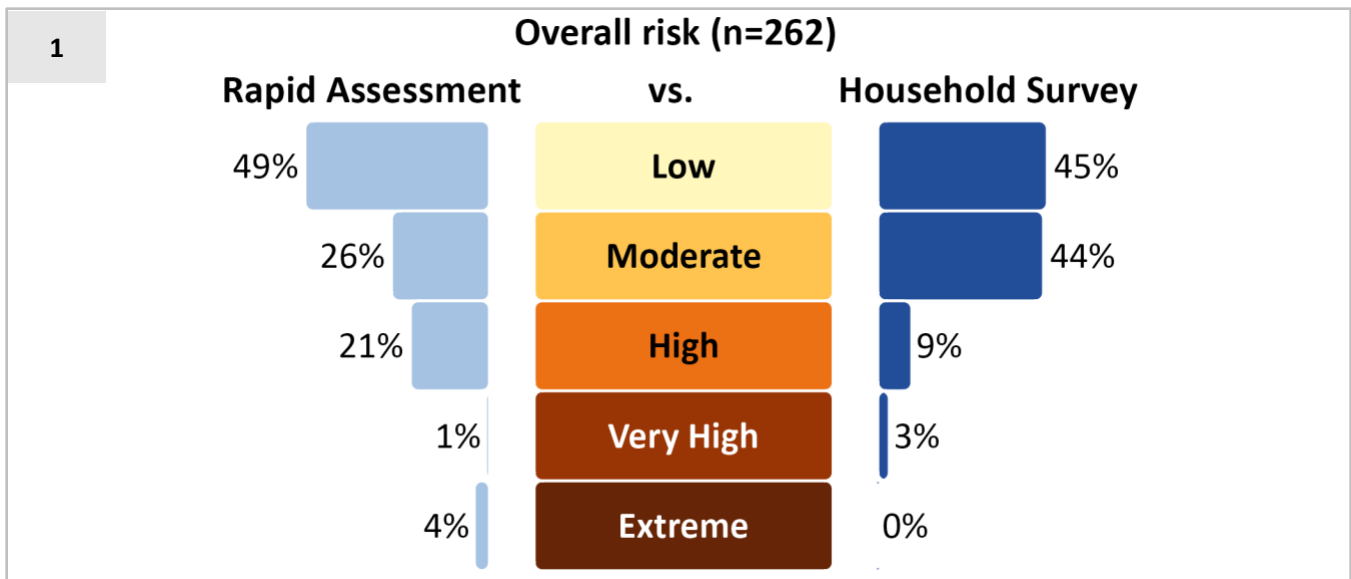
**All data received and processed as of August 31, 2023*

**Document prepared September 8, 2023*

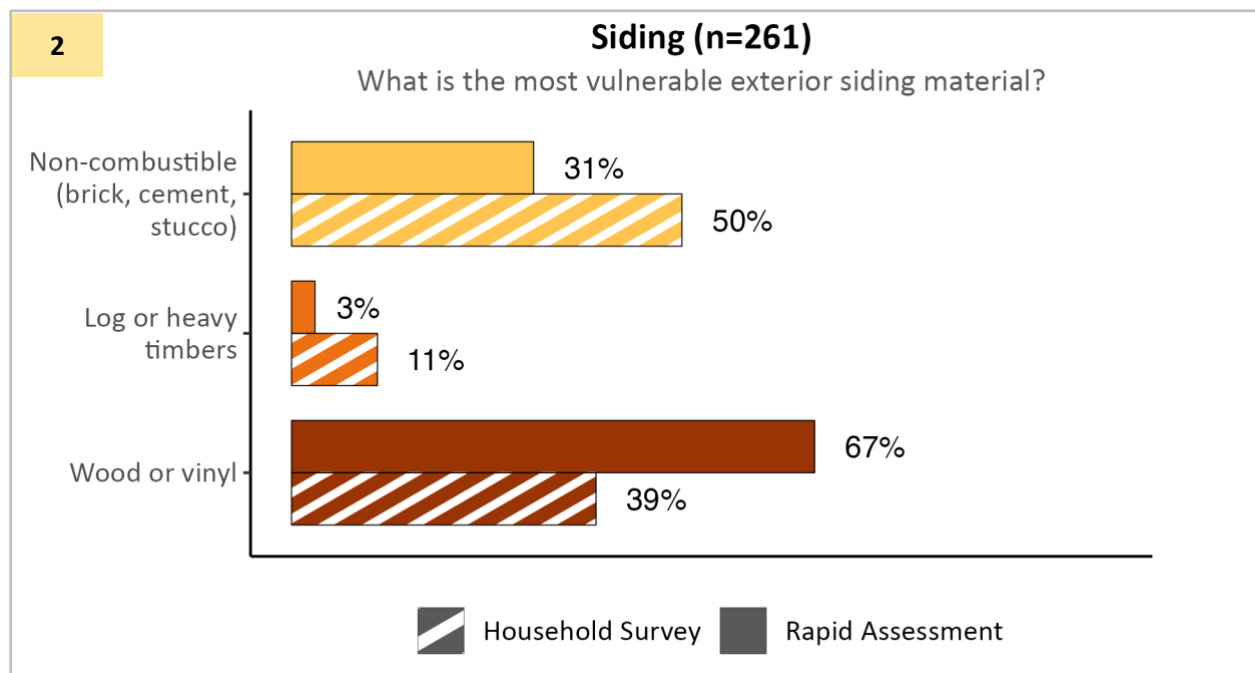
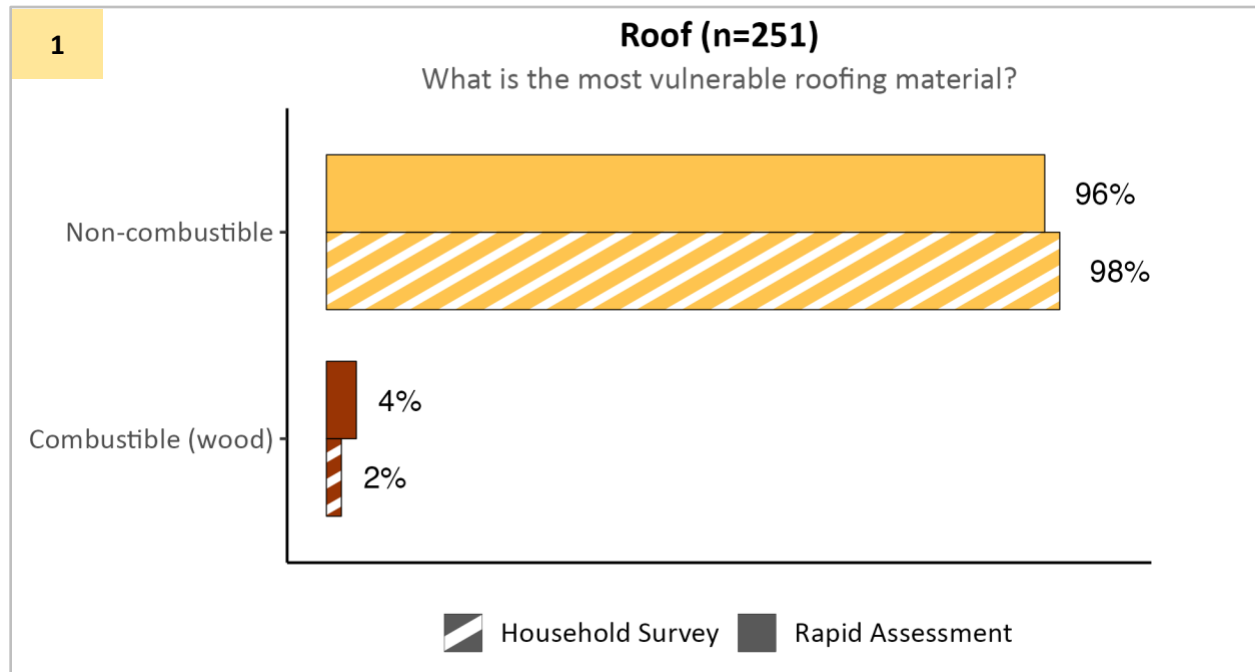
1. Comparison of paired WiRē Rapid Assessment vs. Household Survey

In this section, we compare professional risk ratings and household survey respondents' self-assessments for properties' overall risk rating and the 13 risk attributes included in the rapid assessment. These comparisons are presented as graphs. For the overall risk rating, the professional risk ratings are on the left and the household survey respondents' self-assessment is on the right. For the remaining risk attributes, the first bar shows the professional risk rating, and the second bar presents the household survey respondents' self-assessment. For each individual risk attribute, our comparisons only include the data from properties for which we have both rapid assessment and household survey data for that particular attribute, and thus the number of records (signified by "n=") varies by attribute and is reported for each.

1.1 Overall risk rating



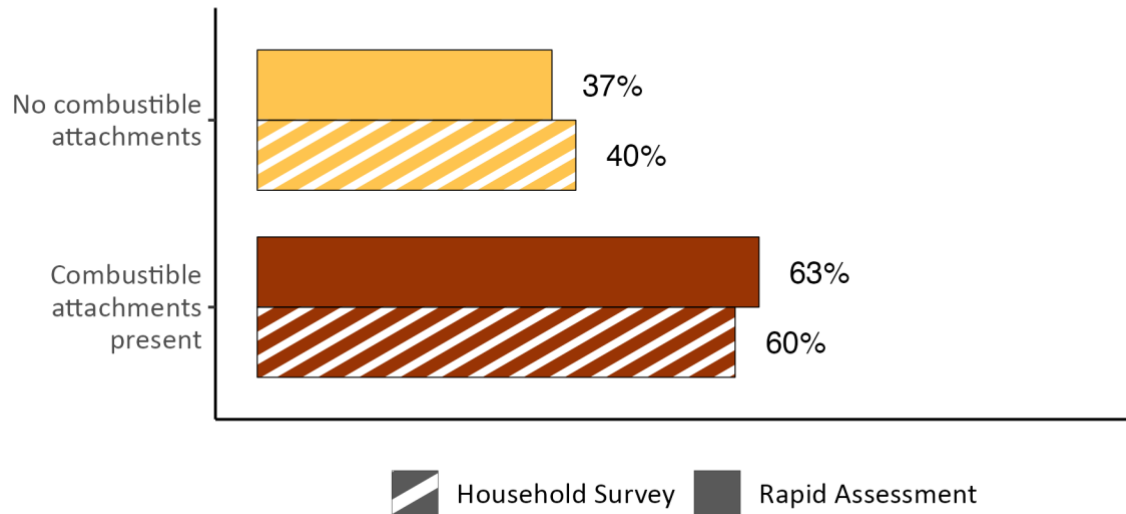
1.2 Home ignition potential



3

Combustible attachments (n=263)

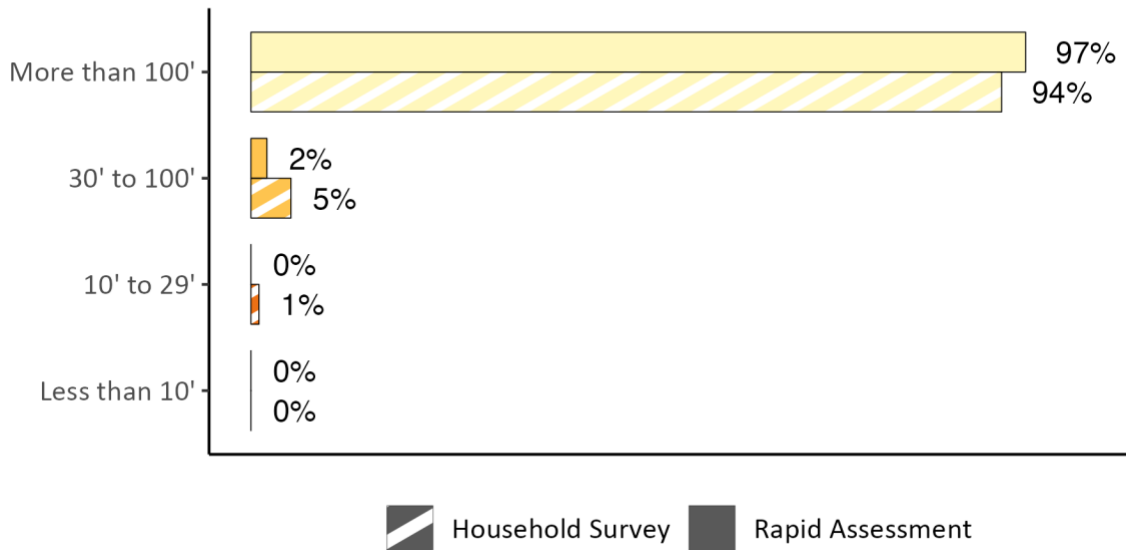
Does the home have a combustible balcony, deck, or fence attached to the structure?



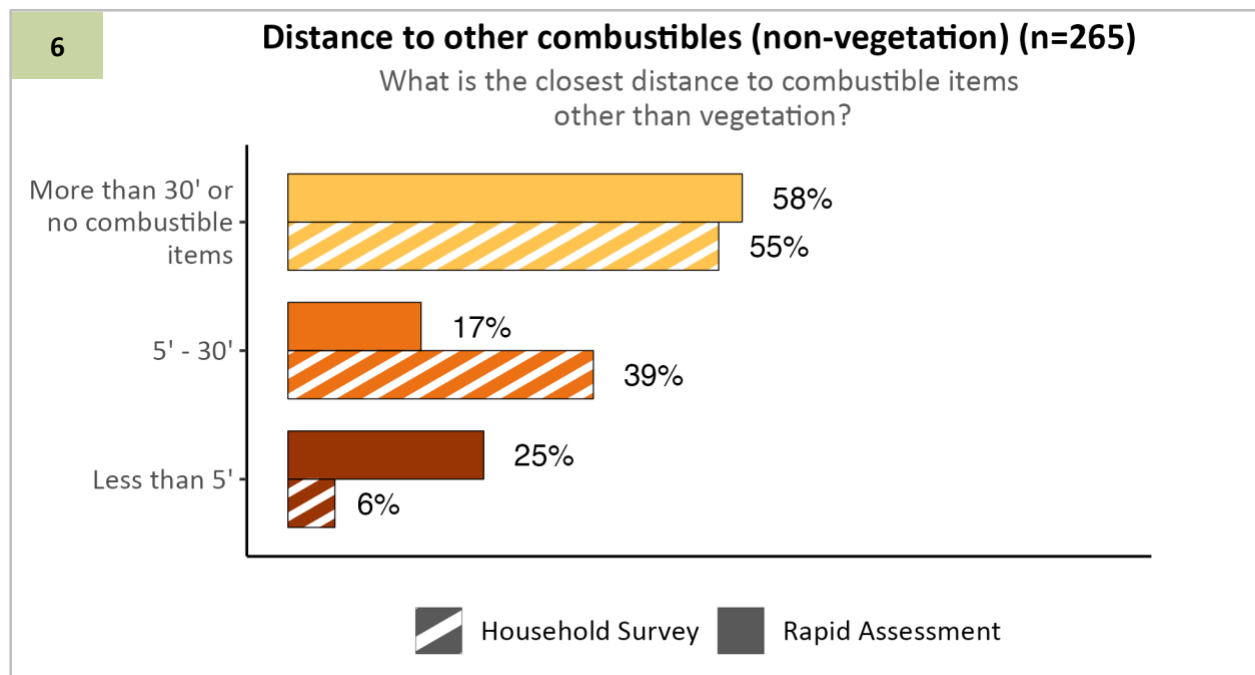
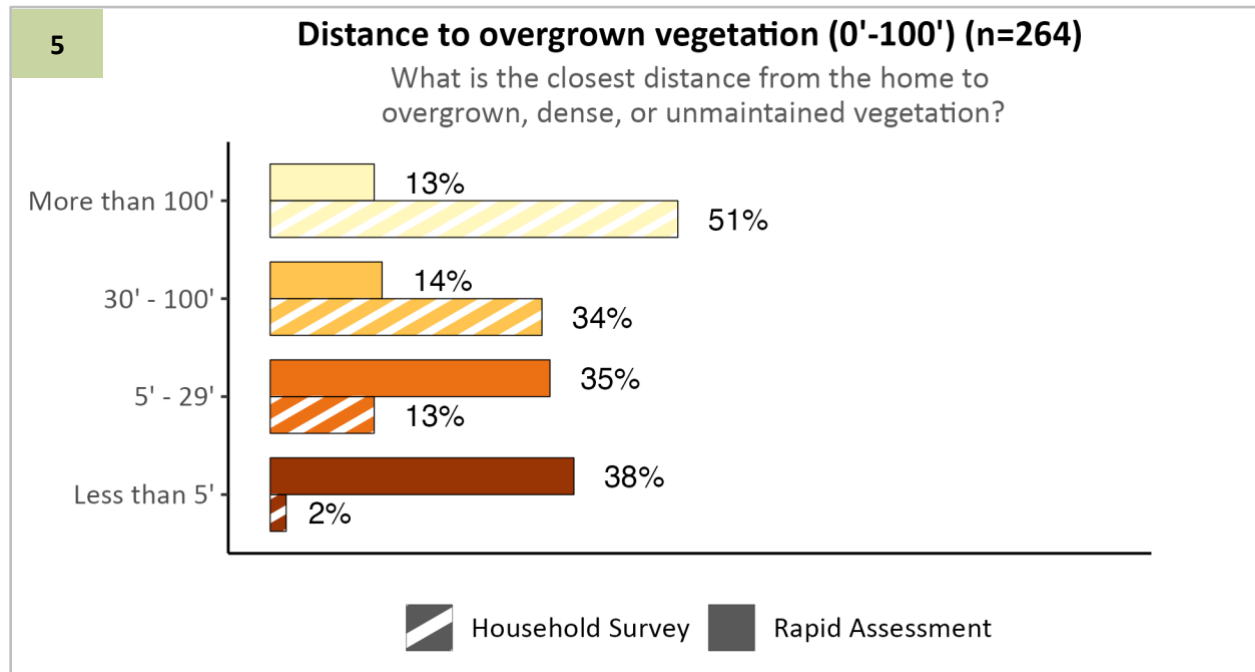
4

Distance to adjacent homes (n=264)

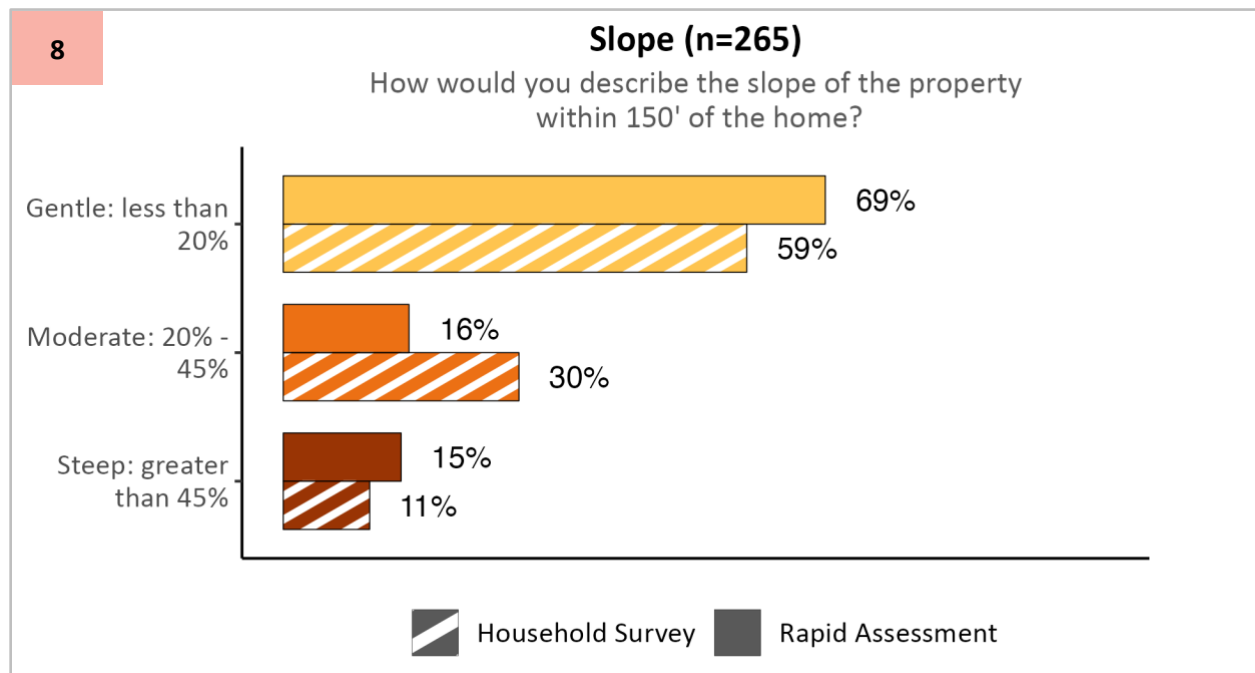
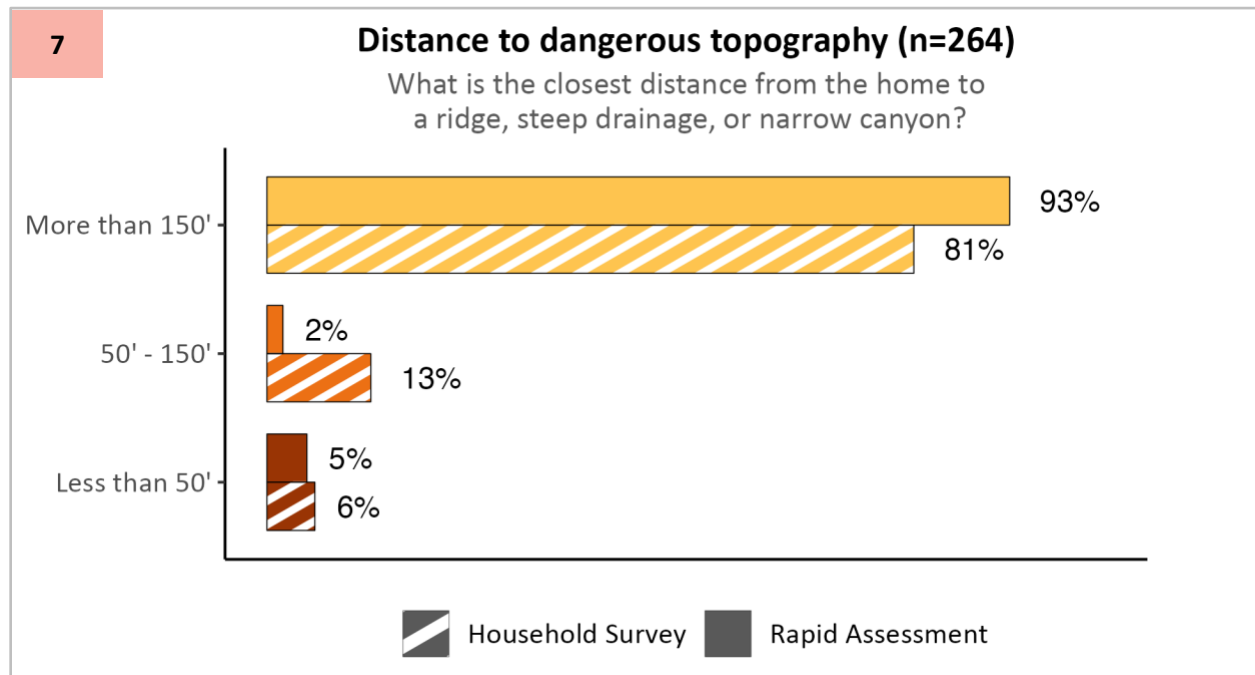
What is the closest distance to a neighboring home?



1.3 Defensible space



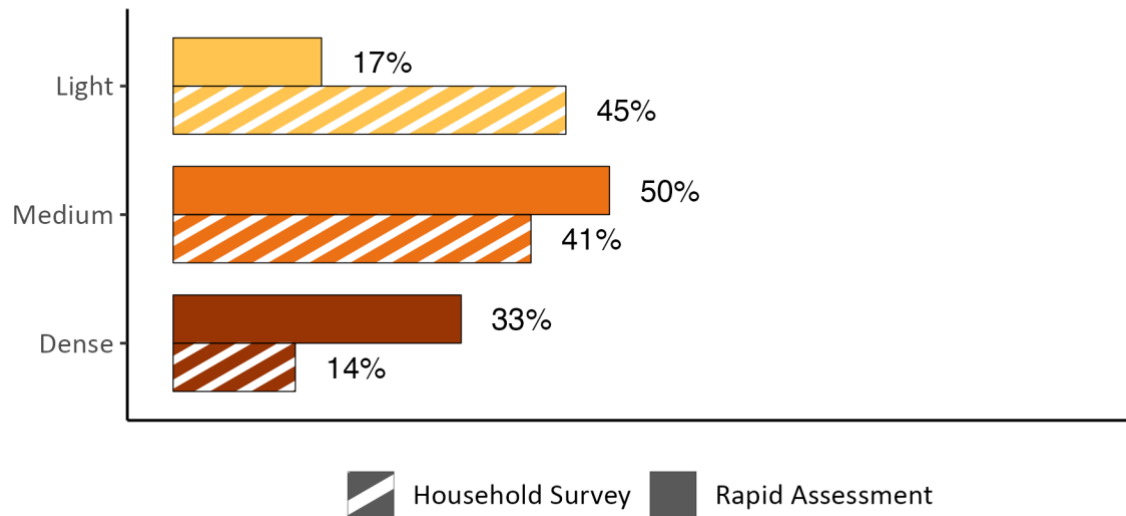
1.4 Background conditions



9

Adjacent fuels (100'-150') (n=260)

Which of the following best describes the dominant vegetation 100'-150' from the home?



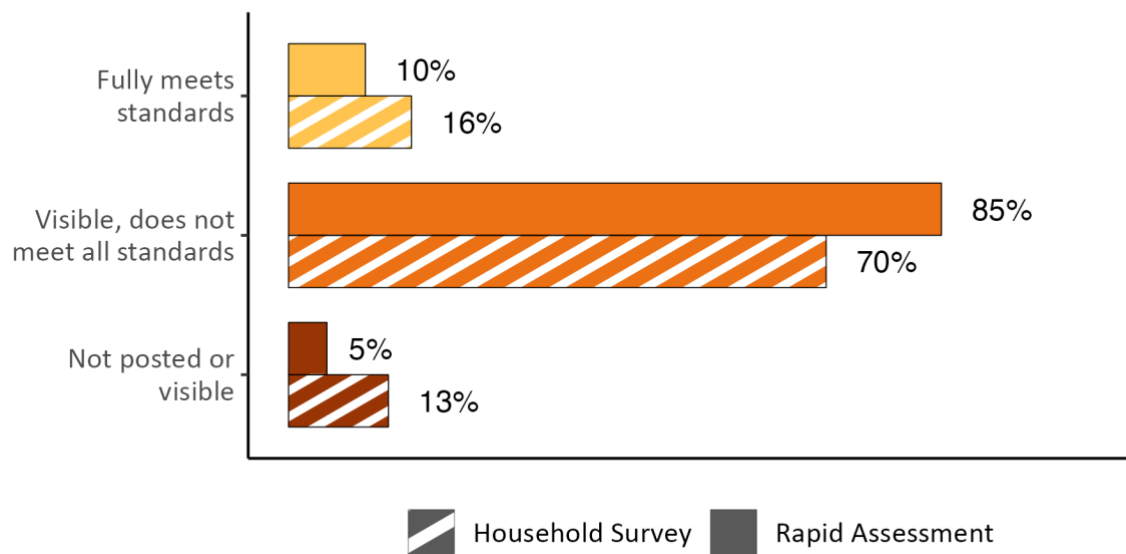
Categories: Light ("grasses with isolated brush"), medium ["sparse brush and/or isolated trees (ex. sage mix with some pinion-juniper and/or ponderosa pine)"], dense ["dense brush and/or dense trees (ex. continuous clusters of pinion-juniper and/or ponderosa pine)"].

1.5 Access

10

Address posting (n=261)

Does the address sign meet all local standards?

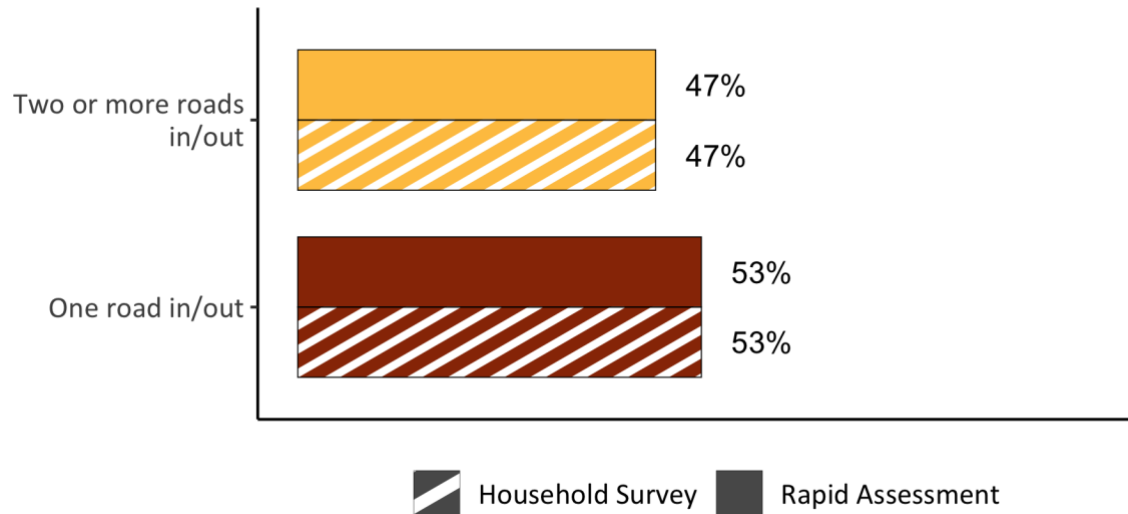


Standards: posted at end of driveway, reflective, 4-inch numerals, on a contrasting background, and made of noncombustible materials.

11

Egress (n=262)

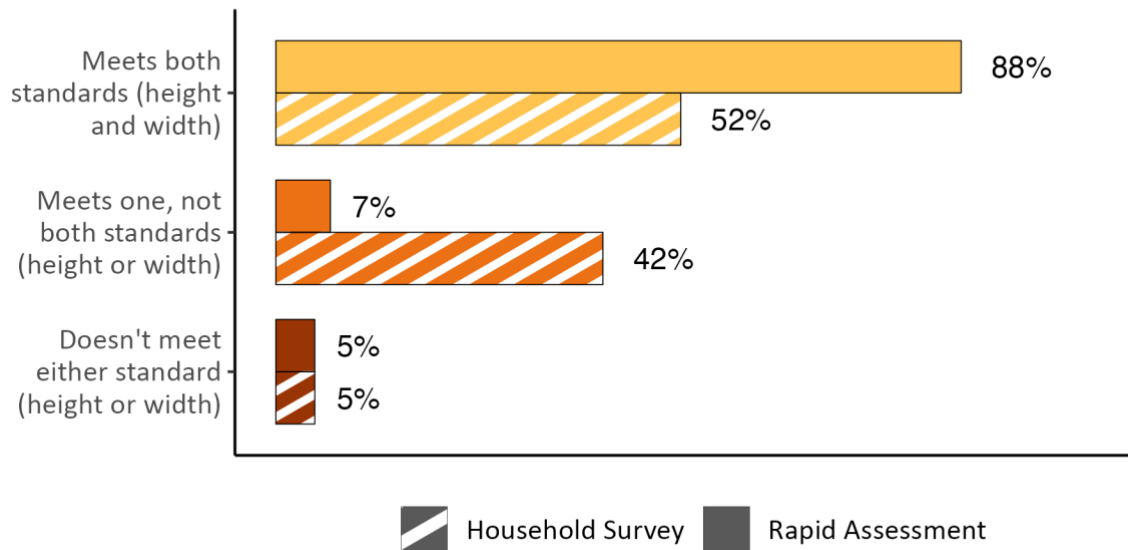
If the road to access the home was blocked due to a wildfire, is there another road to get out of the community?



12

Driveway clearance (n=239)

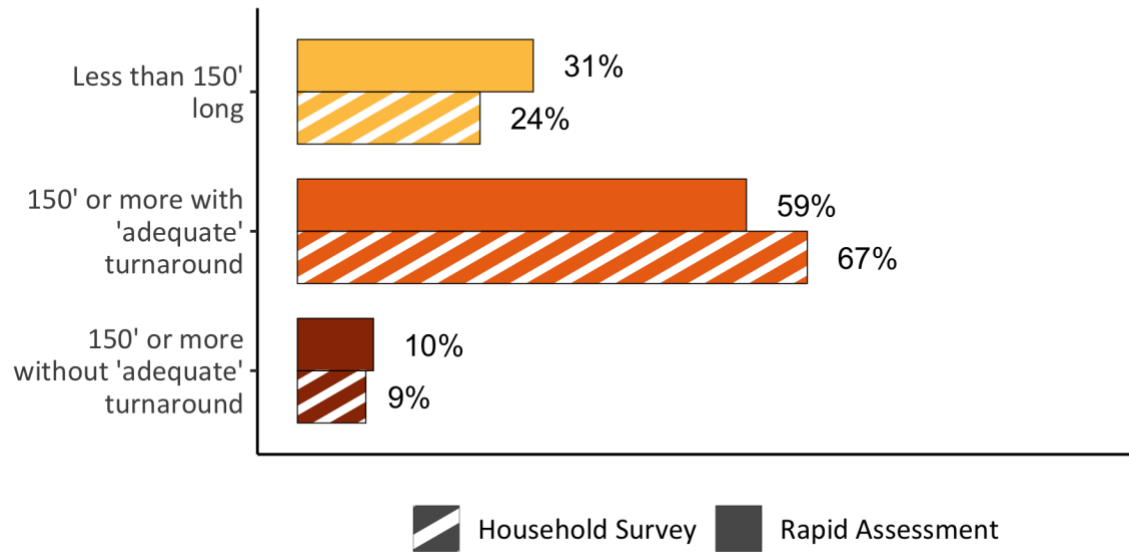
Does the driveway meet horizontal and vertical clearance standards?



Standards: height at least 13.5' and width at least 20'.

Driveway length (n=248)

What best describes the driveway?



2. Comparison of all Rapid Assessments vs. paired Rapid Assessment and Household Survey

Section 2 provides tables that provide a three-way comparison of risk ratings from all rapid assessments in the study area, the subset of rapid assessments for which there is a paired household survey, and the household survey self-assessment.

1.1 Overall risk rating

Overall risk rating: Based on the sum of the 13 attribute scores. Homeowner's self-assessment response to: What do you think is your Montrose property's current overall wildfire risk rating?			
Response categories	All rapid assessments in study area (N=1260)	Subset of rapid assessments with a paired household survey (N=262)	Self-assessment from household surveys (N=262)
Low	49%	49%	45%
Moderate	27%	26%	44%
High	19%	21%	9%
Very high	1%	1%	3%
Extreme	4%	4%	0%

1.2 Home ignition potential

Risk attribute: Roof What is the most vulnerable roofing material?			
Response categories	All rapid assessments in study area (N=1260)	Subset of rapid assessments with a paired household survey (N=251)	Self-assessment from household surveys (N=251)
Non-combustible (tile, metal, or asphalt shingles)	96%	96%	98%
Combustible (wood shake shingles)	4% ^a	4% ^b	2%
a. Out of all rapid assessments in the study area, 45 were missing/unobserved (4%) and included in the highest risk category. b. Out of the subset of rapid assessments with a paired household survey, 9 were missing/unobserved (4%) and included in the highest risk category.			

Risk attribute: Siding What is the most vulnerable exterior siding material?			
Response categories	All rapid assessments in study area (N=1260)	Subset of rapid assessments with a paired household survey (N=261)	Self-assessment from household surveys (N=261)
Stucco, cement, brick, stone, or other noncombustible siding	23%	31%	50%
Log or heavy timbers	3%	3%	11%
Wood or vinyl siding	73% ^a	67% ^b	39%
a. Out of all rapid assessments in the study area, 92 were missing/unobserved (7%) and included in the highest risk category. b. Out of the subset of rapid assessments with a paired household survey, 29 were missing/unobserved (11%) and included in the highest risk category.			

Risk attribute: Combustible Attachments Does the residence have a combustible balcony, deck, porch, or fence attached to the structure?			
Response categories	All rapid assessments in study area (N=1260)	Subset of rapid assessments with a paired household survey (N=263)	Self-assessment from household surveys (N=263)
No combustible attachments	39%	37%	40%
Combustible attachments present*	61% ^a	63% ^b	60%
a. Out of all rapid assessments in the study area, 141 were missing/unobserved (11%) and included in the highest risk category. b. Out of the subset of rapid assessments with a paired household survey, 40 were missing/unobserved (15%) and included in the highest risk category.			

Risk attribute: Distance to adjacent homes What is the closest distance to a neighboring home?			
Response categories	All rapid assessments in study area (N=1260)	Subset of rapid assessments with a paired household survey (N=264)	Self-assessment from household surveys (N=264)
More than 100'	95%	97%	94%
30' – 100'	4%	2%	5%
10' – 29'	1%	<1%	1%
Less than 10'	<1% ^a	0% ^b	0%
a. Out of all rapid assessments in the study area, 5 were missing/unobserved (<1%) and included in the highest risk category. b. Out of the subset of rapid assessments with a paired household survey, 1 was missing/unobserved (<1%) and included in the highest risk category.			

1.3 Defensible space

Risk attribute: Distance to overgrown vegetation (0 – 100 ft) What is the closest distance from the residence to overgrown, dense, or unmaintained vegetation?			
Response categories	All rapid assessments in study area (N=1260)	Subset of rapid assessments with a paired household survey (N=264)	Self-assessment from household surveys (N=264)
More than 100'	17%	13%	51%
Between 30' - 100'	14%	14%	34%
Between 5' - 29'	35%	35%	13%
Less than 5'	34% ^a	38% ^b	2%
a. Out of all rapid assessments in the study area, 111 were missing/unobserved (9%) and included in the highest risk category. b. Out of the subset of rapid assessments with a paired household survey, 32 were missing/unobserved (12%) and included in the highest risk category.			

Risk attribute: Distance to other combustibles (non-vegetation) 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 rapid assessments in study area (N=1260)	Subset of rapid assessments with a paired household survey (N=265)	Self-assessment from household surveys (N=265)
None, greater than 30' from structure	54%	58%	55%
Between 5'-30' from structure	20%	17%	39%
Less than 5' from structure*	26% ^a	25% ^b	6%
a. Out of all rapid assessments in the study area, 127 were missing/unobserved (10%) and included in the highest risk category. b. Out of the subset of rapid assessments with a paired household survey, 34 were missing/unobserved (13%) and included in the highest risk category.			

1.4 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 rapid assessments in study area (N=1260)	Subset of rapid assessments with a paired household survey (N=264)	Self-assessment from household surveys (N=264)
More than 150'	93%	93%	81%
50' - 150'	1%	2%	13%
Less than 50'	5% ^a	5% ^b	6%
a. Out of all rapid assessments in the study area, 6 were missing/unobserved (<1%) and included in the highest risk category. b. Out of the subset of rapid assessments with a paired household survey, 0 were missing/unobserved.			

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 within 150 feet of the home?			
Response categories	All rapid assessments in study area (N=1260)	Subset of rapid assessments with a paired household survey (N=265)	Self-assessment from household surveys (N=265)
Gentle (less than 20%)	72%	69%	59%
Moderate (between 20% and 45%)	15%	16%	30%
Steep (greater than 45%)	13% ^a	15% ^b	11%
a. Out of all rapid assessments in the study area, 6 were missing/unobserved (<1%) and included in the highest risk category. b. Out of the subset of rapid assessments with a paired household survey, 1 was missing/unobserved (<1%) and included in the highest risk category.			

Risk attribute: Adjacent Fuels (100 – 150 ft) Which of the following best describes the dominant vegetation 100'-150' from the home? This may be outside the property boundary.			
Response categories	All rapid assessments in study area (N=1260)	Subset of rapid assessments with a paired household survey (N=260)	Self-assessment from household surveys (N=260)
Light	21%	17%	45%
Moderate	51%	50%	41%
Dense	27% ^a	33% ^b	14%
a. Out of all rapid assessments in the study area, 6 were missing/unobserved (<1%) and included in the highest risk category. b. Out of the subset of rapid assessments with a paired household survey, 1 was missing/unobserved (<1%) and included in the highest risk category.			

1.5 Access

Risk attribute: Address Posting Does the address sign meet all of the standards?			
Response categories	All rapid assessments in study area (N=1260)	Subset of rapid assessments with a paired household survey (N=261)	Self-assessment from household surveys (N=261)
Fully meets standard	8%	10%	16%
Address sign is visible, but does not meet all standards	84%	85%	70%
Not posted/visible from the primary road	8% ^a	5% ^b	13%
a. Out of all rapid assessments in the study area, 0 were missing/unobserved. b. Out of the subset of rapid assessments with a paired household survey, 0 were missing/unobserved.			

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 rapid assessments in study area (N=1260)	Subset of rapid assessments with a paired household survey (N=262)	Self-assessment from household surveys (N=262)
Two or more roads in/out	55%	47%	47%
One road in/out	45% ^a	53% ^b	53%
a. Out of all rapid assessments in the study area, 1 was missing/unobserved (<1%) and included in the highest risk category. b. Out of the subset of rapid assessments with a paired household survey, 0 were missing/unobserved.			

Risk attribute: Driveway clearance Does the driveway meet the horizontal and vertical clearance standards?			
Response categories	All rapid assessments in study area (N=1260)	Subset of rapid assessments with a paired household survey (N=239)	Self-assessment from household surveys (N=239)
Meets all driveway standards	90%	88%	52%
Meets one, but not both, standards (height or width)	6%	7%	42%
Does not meet either standard (height or width)	4% ^a	5% ^b	5%
a. Out of all rapid assessments in the study area, 40 were missing/unobserved (3%) and included in the highest risk category. b. Out of the subset of rapid assessments with a paired household survey, 11 were missing/unobserved (5%) and included in the highest risk category.			

Risk attribute: Driveway length What best describes the driveway?			
Response categories	All rapid assessments in study area (N=1260)	Subset of rapid assessments with a paired household survey (N=248)	Self-assessment from household surveys (N=248)
150 feet long or less	39%	31%	24%
Longer than 150 feet with turnaround “adequate” turnaround	52%	59%	67%
Longer than 150 feet without “adequate” turnaround	8% ^a	10% ^b	9%
a. Out of all rapid assessments in the study area, 53 were missing/unobserved (4%) and included in the highest risk category. b. Out of the subset of rapid assessments with a paired household survey, 13 were missing/unobserved (5%) and included in the highest risk category.			

APPENDIX E: Wildfire Research (WiRē) Household Survey Summary

Begins on next page.

Living with Wildfire in Montrose in 2023



Number of completed surveys: 270

Number of surveys mailed: 1,081

n = number of observations

Response rate: 25%

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

Red words 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

**This project was funded by USDA Forest Service, Washington Office Fire and Aviation Management. The household survey administration was paid for by the University of Colorado via a CU Outreach Award.*

**All data received and processed as of August 15, 2023*

**Document prepared August 16, 2023*

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

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

ownrent_a (n=267)

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

91% Own: primary home

9% Own: secondary residence

0% Rent: I do not own this home

1.2. In a typical year, what months do you spend any time at your Montrose home?
(*Fill in all that apply*)

n=264	all_months	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	no_months
	All 12 months	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	No months
	90%	91%	92%	91%	94%	98%	98%	99%	98%	98%	97%	94%	92%	1%

fulltime (n=260)

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

AVERAGE = 2006

yrbuild (n=255)

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

AVERAGE = 1993

riskawar (n=263)

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

49% Very aware

37% Somewhat aware

12% Not aware

3% Don't remember

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

fire (n=269)

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

- 6% There has been a wildfire on my property
- 12% Less than 2 miles away but not on my property
- 49% 2 to 10 miles away
- 27% More than 10 miles away
- 7% Not sure

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

		No	Yes
evacuated (n=265)	I have evacuated from my Montrose home due to a wildfire or threat of a wildfire	96%	4%
smokedam (n=263)	My Montrose home has had smoke damage	>99%	<1%
firedam (n=263)	My Montrose home has had wildfire damage	>99%	<1%
destroy (n=262)	My Montrose home was destroyed by a wildfire	>99%	<1%

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

		No	Yes	Not applicable
evacppl (n=262)	For the people in my household	33%	67%	
evacpets (n=262)	For the pets in my household and on my property	27%	46%	27%
evaclivstoc (n=259)	For livestock on my property	20%	13%	66%

- 2.4. Have you completed any of the following actions to prepare for a **wildfire evacuation**, and do you want more information about how to complete any of the actions?
(Fill in all circles that apply)

	Completed action?		Want more information about the action?	
Identify how I will be notified about an evacuation	evacact1 (n=270)	38%	evacinfo1 (n=270)	39%
Sign up for a wildfire evacuation notification system (Alert Center www.montrosecounty.net/AlertCenter.aspx)	evacact2 (n=270)	36%	evacinfo2 (n=270)	37%
Identify safe evacuation routes	evacact3 (n=270)	56%	evacinfo3 (n=270)	21%
Identify a location that my household will evacuate to	evacact4 (n=270)	50%	evacinfo4 (n=270)	24%
Identify what to take and what to leave behind during an evacuation	evacact5 (n=270)	50%	evacinfo5 (n=270)	26%
Discuss evacuation with my neighbors	evacact6 (n=270)	28%	evacinfo6 (n=270)	28%
Create a checklist for steps to take before evacuating	evacact7 (n=270)	26%	evacinfo7 (n=270)	39%
Identify a place to stay during a long-term evacuation (i.e., more than a few days)	evacact8 (n=270)	51%	evacinfo8 (n=270)	24%
Pack a “go” bag with important items you would need during an evacuation (see https://simplebooklet.com/emergencygobag)	evacact9 (n=270)	34%	evacinfo9 (n=270)	32%

- 2.5. Please tell us about your experiences with your **homeowners insurance** for your Montrose home. (Fill in one circle per row)

		No	Yes	DK
insure2 (n=261)	Has your current or a previous insurance company ever provided information on reducing the risk of wildfire?	65%	21%	14%
insure3 (n=262)	Did an insurance company ever refuse to provide or renew insurance because of the risk of wildfire?	88%	8%	4%
insure4 (n=261)	Do you pay a higher premium for your insurance due to wildfire risk?	57%	10%	34%
insure10 (n=260)	Do you receive a discount on your insurance premium because you have reduced wildfire risk on your property?	63%	2%	35%
insure12 (n=259)	Do you think your home is adequately insured against loss from a wildfire?	13%	58%	29%
insure13 (n=259)	Has your current insurance company ever required you to take action to reduce wildfire risk in order to continue coverage?	93%	3%	4%
insure15(n=261)	Has your current insurance company offered private firefighting services?	89%	3%	8%

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

- 3.1. Does your Montrose home have any of the following roofing materials?
(Fill in all that apply)

		No	Yes
rooftype1 (n=253)	Tile, metal, or asphalt shingles	<1%	>99%
rooftype2 (n=253)	Wood (shake shingles)	98%	2%

- 3.2. Does your Montrose home have any of the following exterior siding materials?
(Fill in all that apply)

		No	Yes
sidetype1 (n=263)	Stucco, cement, brick, stone, or other noncombustible siding	35%	65%
sidetype2 (n=263)	Log or heavy timbers	87%	13%
sidetype3 (n=263)	Wood or vinyl siding	61%	39%

attachcomb (n=265)

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

40% No
60% Yes

combust_a (n=267)

- 3.4. What is the **closest** distance from your Montrose 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)

55% More than 30 feet or no combustible items
39% 5 – 30 feet
6% Less than 5 feet

closeveg_a (n=266)

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

- 51% More than 100 feet
- 34% 30 – 100 feet
- 13% 5 – 29 feet
- 2% Less than 5 feet

domveg_a (n=262)

3.6. Which of the following best describes the **majority** of vegetation between 100 feet and 150 feet from your Montrose home? That area might be outside your property boundary and include properties immediately surrounding you. (*Fill in one circle*)

- 45% Grasses and shrubs
- 41% Light brush and/or isolated trees (ex. grass with some pine, fir, or other evergreen trees)
- 14% Dense brush and/or dense trees (ex. continuous pine, fir, or other evergreen trees)

closehome (n=266)

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

- 94% More than 100 feet
- 5% 30 - 100 feet
- 1% 10 – 29 feet
- 0% Less than 10 feet

slope (n=267)

3.8. The slope 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 average slope **within 150 feet** of your Montrose home? (*Fill in one circle*)

- 11% Steep – Greater than 45%
- 30% Moderate – 20% to 45%
- 59% Gentle – Less than 20%



ridge (n=266)

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

- 81% More than 150 feet
- 12% 50 – 150 feet
- 6% Less than 50 feet

3.10. Do any of the following describe your driveway? My driveway... (Fill in one circle per row)

		No	Yes
drivewayv (n=244)	has an overhead obstruction (ex. tree limbs) lower than 13.5 feet	93%	7%
drivewayw_b (n=248)	is narrower than 20 feet wide	54%	46%
drivewayl_a (n=254)	is longer than 150 feet	24%	76%
turnarnd_a (n=260)	has room for a fire truck to turn around	17%	83%

3.11. Do any of the following describe your address number? My address number... (Fill in one circle)

		No	Yes
homenum (n=263)	is posted and visible at the end of my driveway?	14%	86%
reflect_a (n=251)	is reflective?	67%	33%
homenum4in (n=254)	has 4-inch-tall numerals?	38%	62%
homenumcontrast (n=254)	is on a contrasting background?	26%	74%
homenumcombust (n=253)	is made of noncombustible materials?	47%	53%

roads (n=263)

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

- 52% No
- 48% Yes

riskrate (n=264)

3.13. Properties in your community are assessed for overall wildfire risk based on the items asked about in questions 3.1 – 3.12 above. What do you think is your Montrose property's current overall wildfire risk rating? (Fill in one circle)

- 45% Low risk
- 43% Moderate risk
- 9% High risk
- 3% Very high risk
- 0% Extreme risk

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

talkfire (n=267)

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

57% No
43% Yes

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

		No	Yes
activities1 (n=266)	Removed large or dense vegetation near my Montrose home (ex. trees, shrubs, brush)	30%	70%
activities7 (n=254)	Regularly cleared my roof and gutters of leaves and pine needles	32%	68%
activities8 (n=260)	Regularly mowed and raked around my Montrose home	14%	86%
activities2 (n=263)	Made my Montrose home more fire resistant (ex. replaced roofing, siding, added hardscaping)	47%	53%
activities3 (n=265)	Helped neighbor(s) reduce vegetation on their properties	82%	18%
activities4 (n=254)	Helped reduce vegetation on community property (ex. HOA, subdivision)	87%	13%
activities5 (n=264)	Helped reduce vegetation on nearby public lands (ex. county, state, federal)	89%	11%
activities6 (n=265)	Participated in a community wildfire preparedness activity (ex. meeting, chipper day, etc.)	91%	9%
activities9 (n=267)	Met with a wildfire professional at your Montrose home to evaluate and discuss your property's wildfire risk	84%	16%
activities11 (n=266)	Participated in a cost share program to reduce vegetation and wildfire risk through West Region Wildfire Council or another organization	94%	6%
activities10 (n=265)	Interacted with public land managers (ex. Colorado State Forest Service or U.S. Forest Service) about fuels reduction on nearby public lands	92%	8%

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

		A lot	Somewhat	Not at all
contrib1 (n=262)	Vegetation on my property	17%	45%	38%
contrib2 (n=264)	Physical characteristics of my house or other buildings (ex. roofing or siding) on my property	10%	40%	50%
contrib3 (n=265)	Vegetation on my neighbors' properties	17%	39%	43%
contrib4 (n=265)	Vegetation on nearby public or large undeveloped land	25%	40%	36%
contrib5 (n=265)	Lack of nearby water supply (ex. hydrant or cistern) for fire suppression	28%	33%	39%

neighboract (n=258)

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)*

- 6% All my neighbors have taken action
- 20% Most of my neighbors have taken action
- 50% Some of my neighbors have taken action
- 24% 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
accept14 (n=250)	Removing trees and reducing other vegetation on HOA property surrounding communities to slow the spread of wildfire (ex. fuel breaks)	27%	33%	27%	8%	5%
accept1 (n=259)	Removing trees and reducing other vegetation (thinning/fuel breaks) on nearby public lands	32%	32%	20%	12%	4%
accept2 (n=258)	Burning piles of vegetation (slash piles) on nearby public lands	26%	34%	19%	13%	9%
accept3 (n=258)	Conducting a prescribed fire ignited by fire professionals on nearby public lands	17%	29%	28%	19%	7%
accept4_a (n=261)	Allowing a naturally ignited fire to burn on nearby public lands, when and where appropriate, for forest management and fire mitigation purposes	18%	30%	31%	13%	8%
accept6 (n=263)	Growth policies or land use regulations that limit new development in fire-prone areas in Montrose	24%	25%	27%	15%	10%
accept7 (n=262)	Building codes that require fire resistant materials for structures located in fire-prone areas in Montrose	30%	30%	22%	15%	4%
accept8 (n=262)	Development standards that require vegetation management (ex. removing or thinning trees and mowing grass) on lots located in fire-prone areas in Montrose	25%	26%	29%	13%	7%
accept12 (n=260)	Temporarily shutting off the power grid during extreme fire risk days to avoid new wildfire ignitions	13%	20%	28%	20%	19%
accept9 (n=262)	Removing vegetation along roadways for safer evacuation	31%	42%	17%	7%	2%
accept13 (n=258)	Building a new road(s) to provide an emergency evacuation route	19%	24%	29%	16%	14%
accept17 (n=261)	Managing the forest before a fire to reduce potential post-fire impacts on water resources	45%	30%	18%	5%	2%

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=260)	With proper technology, we can control most wildfires.	8%	35%	34%	20%	4%
state3 (n=260)	We should put out wildfires that threaten human life.	52%	39%	8%	<1%	<1%
state4_a (n=261)	We should put out wildfires that threaten homes.	43%	42%	12%	2%	1%
state5 (n=261)	During a wildfire, saving homes should be a priority over saving forests.	29%	38%	25%	5%	4%
state6 (n=261)	Wildfires are a natural part of a healthy forest/ecosystem.	44%	45%	10%	<1%	1%
state11 (n=260)	I live here for the trees and will not remove any of them to reduce wildfire risk.	1%	4%	19%	44%	31%
state13 (n=262)	Managing the wildfire danger is a government responsibility, not mine.	1%	5%	26%	44%	23%
state14 (n=261)	Homeowners' actions to reduce wildfire are not effective.	1%	3%	14%	53%	30%
state15 (n=260)	My property is at risk of wildfire.	7%	26%	26%	28%	13%
state17 (n=261)	My effort to reduce wildfire risk on my property is not effective because of the heavy vegetation on my neighbors' properties.	3%	9%	27%	46%	15%
state19 (n=261)	Local firefighters have sufficient resources to keep a wildfire from spreading.	2%	13%	40%	33%	12%
state20 (n=261)	Local firefighters have sufficient resources to protect threatened homes.	2%	17%	43%	31%	8%
state21 (n=262)	Firefighters should put their lives at risk to protect my home.	1%	4%	15%	40%	41%
state22 (n=258)	Wildfires threaten my community water supply.	8%	14%	46%	26%	6%
state24 (n=262)	I plan to move out of the area in the next 12 months because of wildfires.	0%	0%	3%	16%	81%
state25 (n=261)	Development in fire-prone areas of Montrose increases the wildfire risk to my Montrose property.	6%	20%	37%	24%	13%

5.2. If there is a wildfire on your Montrose 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=259)	I would put the fire out.	13%	19%	22%	23%	20%	2%
lact2 (n=257)	The fire department would save my home.	8%	33%	36%	17%	5%	1%
lact3 (n=259)	My home would have smoke damage.	5%	25%	33%	28%	8%	<1%
lact4 (n=259)	My home would have some physical damage.	3%	19%	32%	29%	15%	1%
lact5 (n=259)	My home would be destroyed.	2%	7%	24%	36%	29%	2%
lact6 (n=261)	I would lose money due to the loss of business or income on my property.	4%	11%	13%	15%	28%	29%
lact7 (n=261)	My trees and landscape would burn.	10%	25%	24%	30%	9%	2%
lact9 (n=257)	My neighbors' homes would be damaged or destroyed.	4%	15%	32%	30%	15%	5%
lact12 (n=259)	Direct flame would ignite my home.	4%	16%	22%	29%	28%	1%
lact13 (n=260)	Embers would ignite my home.	3%	15%	23%	35%	22%	1%
lact14 (n=259)	Nearby homes would ignite my home.	<1%	3%	8%	21%	60%	7%

chances1 (n=262)

5.3. What do you think is the chance that a wildfire will be on your Montrose 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%	0%	0%	<1%	10%	3%	8%	17%	49%	13%

chances2 (n=262)

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 Montrose home? *(Fill in one circle)*

For sure										No chance
100%	90%	80%	70%	60%	50%	40%	30%	20%	10%	0%
1%	2%	2%	3%	3%	13%	5%	11%	14%	35%	11%

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)*

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 info from source		Extremely useful	Very useful	Moderately useful	Slightly useful	Not at all useful
Montrose Fire Protection District	sourcerec1 (n=260)	24%	sourceuse1 (n=63)	11%	46%	30%	11%	2%
Montrose County Office of Emergency Management	sourcerec32 (n=256)	17%	sourceuse32 (n=43)	12%	30%	40%	19%	0%
Community group (ex. homeowners association)	sourcerec2 (n=259)	11%	sourceuse2 (n=28)	0%	18%	29%	43%	11%
Community wildfire ambassador	sourcerec25 (n=256)	5%	sourceuse25 (n=14)	14%	14%	21%	21%	29%
Local arborist/contractor	sourcerec28 (n=258)	7%	sourceuse28 (n=18)	11%	28%	22%	17%	22%
West Region Wildfire Council	sourcerec43 (n=257)	26%	sourceuse43 (n=66)	38%	26%	26%	9%	2%
Local government	sourcerec29 (n=259)	12%	sourceuse29 (n=32)	0%	31%	34%	28%	6%
Firewise USA®	sourcerec5 (n=259)	5%	sourceuse5 (n=13)	0%	23%	23%	38%	15%
Ready, Set, Go! program	sourcerec24 (n=259)	4%	sourceuse24 (n=11)	0%	9%	36%	36%	18%
Conservation land trusts	sourcerec44 (n=257)	5%	sourceuse44 (n=13)	0%	8%	54%	15%	23%
Colorado State Forest Service	sourcerec6 (n=259)	14%	sourceuse6 (n=35)	17%	31%	14%	34%	3%
USDA Forest Service	sourcerec14 (n=261)	15%	sourceuse14 (n=40)	8%	25%	30%	33%	5%
National Park Service	sourcerec34 (n=259)	9%	sourceuse34 (n=23)	0%	35%	35%	17%	13%
Bureau of Land Management	sourcerec15 (n=257)	16%	sourceuse15 (n=40)	3%	25%	43%	28%	3%
Media (newspaper, TV, radio, internet)	sourcerec4 (n=257)	46%	sourceuse4 (n=118)	4%	22%	36%	31%	7%
Westslopefireinfo.com	sourcerec45 (n=257)	19%	sourceuse45 (n=49)	12%	29%	31%	24%	4%

- 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 all circles that apply)

	I receive information from this source		I would like to receive information from this source	
Email/e-newsletter	receiveinfo1 (n=270)	12%	wantinfo1 (n=270)	41%
Mailed newsletter	receiveinfo2 (n=270)	15%	wantinfo2 (n=270)	48%
Community meetings	receiveinfo3 (n=270)	5%	wantinfo3 (n=270)	22%
Conversations with local wildfire specialists	receiveinfo4 (n=270)	11%	wantinfo4 (n=270)	33%
Social media (Facebook, Twitter, Nextdoor)	receiveinfo5 (n=270)	13%	wantinfo5 (n=270)	17%
Internet (non-social media)	receiveinfo6 (n=270)	22%	wantinfo6 (n=270)	25%
TV news	receiveinfo7 (n=270)	30%	wantinfo7 (n=270)	20%
Newspaper	receiveinfo8 (n=270)	22%	wantinfo8 (n=270)	18%
Radio	receiveinfo9 (n=270)	23%	wantinfo9 (n=270)	20%

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 Montrose property.

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

Personal resources	factor1 (n=258) Financial cost 31%	factor2 (n=258) Time to do the work 27%	factor3_a (n=258) Physical ability to do the work 30%	factorno1 (n=258) None of these 49%
Lack of specific information about...	factor11 (n=258) The factors contributing to my property's wildfire risk 16%	factor4 (n=258) How to reduce wildfire risk on my property 17%	factor12 (n=258) Where to dispose of vegetation/slash 20%	factorno2 (n=258) None of these 61%
Personal perspectives	factor6 (n=255) I do not want to change the way my property looks 8%	factor5_a (n=255) I do not think taking action would reduce my property's wildfire risk 12%	factor13 (n=255) It's a low priority to me 14%	factorno3 (n=255) None of these 70%
Community	factor14 (n=255) Lack of options for disposing vegetation/slash 20%	factor9_a (n=255) Restrictions on the changes I can make to my property 3%	factor15 (n=255) Social pressure from neighbors 1%	factorno4 (n=255) None of these 78%

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

Resources	incentv1 (n=253) Cost-share or financial assistance 40%	incentv3 (n=253) Help doing the work 40%	incentv4 (n=253) Recommended contractors 14%	incentvno1 (n=253) None of these 44%
Information	incentv6 (n=255) A report describing my property's wildfire risk factors 47%	incentv7 (n=255) Videos showing how to reduce risk on a property in my area 20%	incentv8 (n=255) One-on-one visit with wildfire risk experts on my property 40%	incentvno2 (n=255) None of these 34%
Other	incentv9 (n=250) Feedback on the work I've done to reduce my property's risk 28%	incentv10 (n=250) Recognition for taking action 5%	incentv11 (n=250) Neighborhood group that organizes wildfire risk-reduction activities 16%	incentvno3 (n=250) None of these 62%

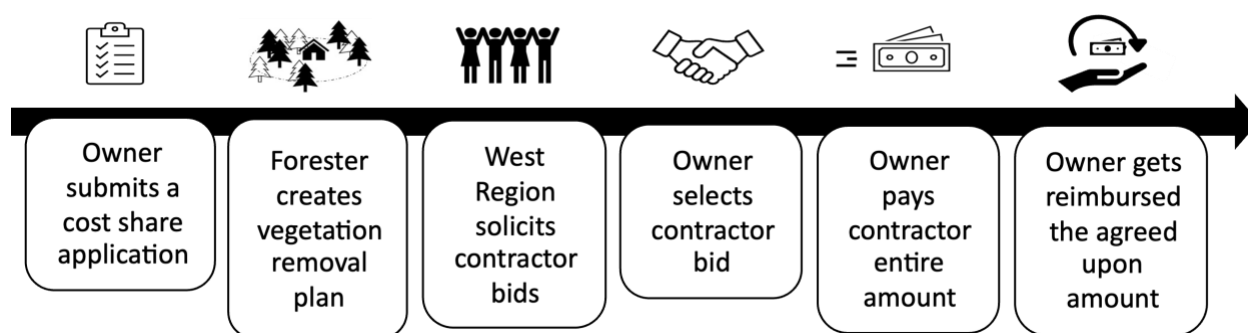
participate_a (n=247)

7.3. Would you reduce vegetation on your property to reduce wildfire risk if you received reimbursement for the cost? (Fill in one circle)

29% No

71% Yes

7.4. West Region Wildfire Council has a cost share program that includes the features shown below. The total cost of removing vegetation to reduce wildfire risk on private property is about \$3,000 per acre. After a free initial on-site consultation (aka Site Visit) with a wildfire professional, this is general process for the program:



amtupay_b (n=241)

If you would participate in this program, what is the highest amount you would be willing to pay to have a contractor remove vegetation on **the first acre** surrounding your home as a part of West Region Wildfire Council's cost share program? (Fill in one circle)

	Amount you are willing to pay	Amount the program pays
4%	\$3,000	\$0
1%	\$2,700	\$300
0%	\$2,250	\$750
24%	\$1,500	\$1,500
12%	\$750	\$2,250
10%	\$300	\$2,700
17%	\$0	\$3,000
32%	I would not participate in this program even if fully reimbursed	

7.5. How do the following cost share program features affect your decision to participate in the cost share program? (*Fill in one circle per row*)

		Makes me NOT want to participate	Does not affect my decision to participate	Makes me want to participate
csfeatures1 (n=230)	Having someone develop a vegetation removal plan for me	11%	55%	34%
csfeatures2 (n=227)	Reducing vegetation on my property	8%	65%	26%
csfeatures3 (n=228)	Having a forester and contractor on my property	14%	69%	17%
csfeatures4 (n=144)	Having to hire a contractor	0%	95%	5%
csfeatures5 (n=224)	Having a contractor remove vegetation on my property	22%	63%	15%
csfeatures6 (n=229)	Having to pay a portion of the total cost	27%	64%	9%
csfeatures7 (n=223)	Timing of when I learn the portion of the total cost I will pay	26%	69%	6%
csfeatures8 (n=221)	Timing of when I will be reimbursed	23%	70%	7%
csfeatures9 (n=225)	Complexity of the program	34%	64%	2%

reimbursetime (n=217)

7.6. The cost share program requires that you pay your contractor the full cost at the time of service. Please select the maximum amount of time you would be willing or able to wait to be reimbursed by West Region Wildfire Council? (*Fill in one circle*)

29% I am not willing/able to wait for reimbursement
6% 5 business days from the time I pay my contractor
12% 10 business days from the time I pay my contractor
30% 1 month from the time I pay my contractor
23% I am not concerned about reimbursement timeline as long as I am eventually reimbursed

acresown (n=237)

7.7. Do you own more than one acre at your Montrose property? (*Fill in one circle*)

9% No

91% Yes → If the cost share program could help pay for vegetation removal to reduce risk beyond the one acre around your home, how many acres would you be willing to mitigate and how much would you be willing to pay per acre? (*Fill in each blank*)

acresmitigate (n=167)

amtperacre (n=135)

MEAN ACRES: 20

MEAN DOLLARS PER ACRE: \$524

Min: 0 Max: 1,024

Min: \$0 Max: \$13,000

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

risktake1 (n=253)

8.1. In general, do you view yourself as someone who is very willing to take risks or not at all 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
2%	3%	8%	16%	9%	26%	6%	13%	8%	3%	5%

age (n=254)

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

MEAN AGE: 65 years old

gender (n=252)

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

66% Male
34% Female
0% Other

educ (n=252)

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

1% Less than high school
12% High school graduate
17% Some college or technical school
8% Technical or trade school
27% College graduate
8% Some graduate work
28% Advanced degree (M.D., M.A., M.S., Ph.D., etc.)

employ (n=260)

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

- 32% Employed full time (including self-employed)
- 8% Employed part time (including self-employed)
- 3% Unemployed or do not work outside of the home
- 56% Retired

income (n=214)

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

- 3% Less than \$15,000
- 6% \$15,000 - \$24,999
- 6% \$25,000 – \$34,999
- 14% \$35,000 - \$49,999
- 17% \$50,000 - \$74,999
- 16% \$75,000 - \$99,999
- 20% \$100,000 - \$149,999
- 6% \$150,000 - \$199,999
- 13% \$200,000 or more

Thank you for your help. Please use the space below to write any additional comments. Refer to the cover letter included in your mailing for contact information if you would like to schedule an onsite visit with a wildfire professional to learn how you can reduce risk on your property.

APPENDIX F: Outreach materials

Begins on next page.

Understand your property's **WILDFIRE RISK**

Montrose Fire Protection District



RAPID WILDFIRE RISK ASSESSMENTS

We conducted a rapid wildfire risk assessment of your property. This 60-second evaluation was performed from the road by trained assessors.

We observed factors that affect the chances of your home catching fire. Additionally, we looked at the vegetation and combustible items immediately surrounding your home, the type and density of vegetation around the property that can influence wildfire behavior, and features that could impact access to your home during a wildfire.



HOUSEHOLD SURVEY RESULTS

In 2022, we mailed 1,081 surveys on wildfire risk to households in the Montrose Fire Protection District. The survey covered a wide range of topics, including the acceptability of wildfire-related policies and fuel treatments, parcel-level wildfire risk perceptions, barriers and incentives to action, communication preferences, and more.

We received 270 completed surveys, a 25% response rate. Thank you to all of those who participated!



RECOMMENDED HOMEOWNER ACTIONS



**COMPLETE EVACUATION
PREPARATIONS**



**CREATE AND MAINTAIN
DEFENSIBLE SPACE**

For more
details, see
page 2



CREATE *an* evacuation plan

Visit bit.ly/CSU-Evacuation-Guide or scan the QR code to the left.



REGISTER *for* alert notifications

Visit montrosecounty.sheriffsoffice.com/montrose-alerts or scan the QR code to the left.

Visit the Montrose County Alerts Registration Portal to register and set up phone, email, and text/SMS message alert preferences.

Evacuation preparations

Emergency notifications

- Identify how I will be notified about an evacuation.
- Sign up for a wildfire evacuation notification system.

Where to evacuate

- Identify safe evacuation routes (multiple, if possible).
- Identify a location that my household will evacuate to.
- Identify a place to stay during a long-term evacuation.

Other critical steps

- Create a checklist for steps to take before evacuating.
- Identify what to take and what to leave behind during an evacuation.
- Pack a "go" bag with important items needed during an evacuation.
- Discuss evacuation with neighbors.



Montrose Fire Protection District

The mission of the Montrose Fire Protection District is to help improve the quality of life for its citizens by providing prompt, safe, and efficient response to emergencies with highly trained professional firefighters and emergency medical providers.

📞 970-249-9181

✉ info@montrosefire.org

🌐 www.montrosefire.org

📍 **Station One**
441 S. Uncompahgre Ave
Montrose, CO 81401

Station Two
65960 Racine Rd
Montrose, CO 81401

Station Three
62840 Spring Creek Rd
Montrose, CO 81401

West Region Wildfire Council

Increasing resilience to wildfire in Delta, Gunnison, Hinsdale, Montrose, Ouray, and San Miguel Counties in Colorado. West Region Wildfire Council aims to mitigate loss due to wildfire in wildland-urban interface communities while fostering interagency regional partnerships. These partnerships help counties, fire protection districts, communities, and agencies plan for and mitigate potential threats from wildfire.

📞 970-615-7300

✉ info@cowildfire.org

🌐 www.cowildfire.org

📍 West Region Wildfire Council
160 S. Amelia St
Ridgway, CO 81432

Understand your home's **DEFENSIBLE SPACE**

ZONE 1 (0–5 feet from home)

- 92%** Respondents reported having this much defensible space
- 53%** Trained assessors reported homes having this much defensible space

ZONE 2 (5–30 feet from home)

- 50%** Respondents reported having this much defensible space
- 18%** Trained assessors reported homes having this much defensible space

ZONE 3 (30–100 feet from home)

This zone focuses on mitigation to slow or stop the spread of wildfire and helps protect your home. Where property lines meet, homeowners are encouraged to work with neighbors to reduce risk.

Defensible space is the area around a home or structure that has been modified to reduce fire hazard. This is achieved by clearing, pruning, or spacing out combustible items.

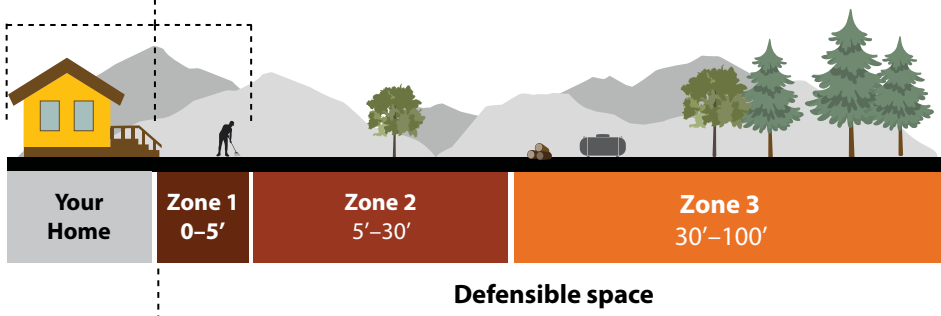
Create and maintain defensible space

Combustible items refer to materials or objects that can easily catch fire or contribute to the spread of flames. Examples include live or dead vegetation, outdoor furniture, propane tanks, firewood, or detached garages.

Start with **5 feet of defensible space** around your home

Zone 1: Recommended homeowner actions

- Clear debris from roof, gutters, on/under deck, and foundation of home
- +
- Keep weeds or grasses under 4 inches
- +
- Remove trees overhanging home
- +
- Move firewood and propane tanks at least 30 feet away from home
- +
- Dispose of slash from tree and shrub thinning



LEARN more about defensible space

Visit bit.ly/CSFS-HIZ-Guide or scan the QR code to the left.



SCHEDULE a free home assessment

Visit www.cowildfire.org/site-visit or scan the QR code to the left.

Meet with a West Region Wildfire Council wildfire mitigation specialist or forester at your home or property to discuss site-specific wildfire risks and mitigation strategies.



Encouraging homeowner action to reduce wildfire risk:

Survey results from Montrose Fire Protection District

What would encourage survey respondents to mitigate?



47%

Report describing property's wildfire risk factors



40%

Cost-share or financial assistance



40%

One-on-one visit from a wildfire professional



40%

Help doing the work



28%

Feedback on mitigation work completed

What do respondents think of cost share programs?

71%

Of respondents would reduce vegetation if reimbursed...

...but **low-income** respondents **were less willing to participate** in the cost share program presented.



Factors that made low-income respondents NOT want to participate



Having to hire a contractor



Timing of when I will learn portion I have to pay



Timing of reimbursement



Complexity of cost-share program

Are survey respondents prepared to evacuate for wildfire?



64% have **not** signed up for Genasys Emergency Alert (evacuation notifications)

44% have **not** identified safe evacuation routes

33% have **not** made an evacuation plan for the people in their household



Survey respondents support community-level action

*Do respondents support wildfire-related policies, codes, and actions?
Percentage who found the following very or extremely acceptable:*



60%

Building codes that require fire-resistant materials for structures in fire-prone areas



51%

Development standards that require vegetation management on lots in fire-prone areas



48%

Growth policies or land use regulations that limit new development in fire-prone areas



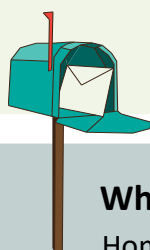
42%

Building a new road to provide an emergency evacuation route



33%

Temporarily shutting off the power grid during extreme fire risk days to avoid new wildfire ignitions



Who were the survey respondents?

Homeowners in Montrose County Fire Protection District whose parcels were assessed using the rapid assessment tool described below.

25%

response rate

90%

full-time residents

65

average age

More about our data

Our survey

Our 16-page survey covered a lot of ground. We asked about everything from acceptability of wildfire-related policies and fuel treatments, to parcel-level wildfire risk perceptions, barriers and incentives to action, information preferences, and more.

Our paired wildfire risk assessments

We conducted rapid wildfire risk assessments, designed to be conducted from the road and take 60 seconds. We evaluated: home ignition potential, defensible space, background conditions, and access to the property. We then compared those professional assessments to survey respondents' self-assessment of their home's wildfire risk. This allowed us to identify priorities for wildfire risk outreach and programming.

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