Appendices
Table of Contents

APPENDIX A. GLOSSARY A-1

APPENDIX B. RELEVANT FEDERAL, STATE AND LOCAL REGULATIONS & POLICIES B-1

B.1 Federal Level Policy B-1
B.2 State Level Policy B-2
B.3 County Level Policy and Regulations B-7
B.4 City | Community Level Policy B-10

APPENDIX C. FIREFIGHTING CAPACITY AND FIRE BEHAVIOR CORRELATION C-1

APPENDIX D. FUEL TREATMENT PRESCRIPTIVE GUIDELINES AND TECHNIQUES D-1

D.1 Roadside Fuel Treatment Prescriptive Guidelines D-1
D.2 Vegetation/Fuel Treatment Prescriptive Guidelines D-2
D.3 Implementation Guidelines for Fuel Treatments D-3
D.4 Recommended Best Management Practices (BMP's) D-4
D.5 Fuel Treatment Implementation Timing D-5

APPENDIX E. PUBLIC WORKSHOP E-1

APPENDIX F. RESULTS OF PUBLIC SURVEY F-1

Appendix A. *Glossary*

The following provides terms or words found in or relating to this plan (additional terms are available at http://www.nwcg.gov/glossary):

- ***1-Hour Timelag Fuels (a.k.a., one-hour fuels):*** Fuels consisting of dead herbaceous plants and roundwood less than about ¼ inch (6.4 mm) in diameter. Also included is the uppermost layer of needles or leaves on the forest floor.
- ***10-Hour Timelag Fuels (a.k.a. ten-hour fuels):*** Dead fuels consisting of roundwood ¼ to l inch (0.6 to 2.5 cm) in diameter and, very roughly, the layer of litter extending from immediately below the surface to ¾ inch (1.9 cm) below the surface.
- ***100-Hour Timelag Fuels (a.k.a., hundred-hour fuels):*** Dead fuels consisting of roundwood in the size range of 1 to 3 inches (2.5 to 7.6 cm) in diameter and very roughly the layer of litter extending from approximately ¾ of an inch (1.9 cm) to 4 inches (10 cm) below the surface.
- ***1,000-Hour Timelag Fuels (a.k.a., thousand-hour fuels):*** Dead fuels consisting of roundwood 3 to 8 inches in diameter and the layer of the forest floor more than 4 inches below the surface.
- ***Active Crown Fire:*** A fire in which a solid flame develops in the crowns of trees, but the surface and crown phases advance as a linked unit dependent on each other.
- ***Aspect:*** Direction a slope faces.
- ***Canopy Spacing:*** The distance from the edge of one tree canopy to another. Crown spacing varies from open (with 10 feet or more of space between tree canopies) to closed (where trees may be growing in very close proximity with little space between them).
- ***Crown Fire:*** A fire that advances from top to top of trees or shrubs more or less independent of a surface fire. Crown fires are sometimes classed as running or dependent to distinguish the degree of independence from the surface fire.
- ***Dead Fuels***: Fuels with no living tissue in which moisture content is governed almost entirely by atmospheric moisture (relative humidity and precipitation), dry-bulb temperature, and solar radiation.
- ***Direct Attack:*** A method of fire suppression where actions are taken directly along the fire's edge. In a direct attack, burning fuel is treated directly, by wetting, smothering, or chemically quenching the fire or by physically separating burning from unburned fuel.
- ***Fire Apparatus Access Roads -*** The means for emergency apparatus to access a facility or structure for emergency purposes. Roadways must extend to within 150 feet of all portions of the exterior of the first floor of any structure and must meet specified criteria for width, pavement characteristics, roadway gradient, turning radius, etc. Fire apparatus access roads are also referred to as fire lanes.
- ***Fire Behavior:*** The manner in which a fire reacts to the influences of fuel, weather, and topography.
- ***Fire Frequency:*** Temporal fire occurrence described as a number of fires occurring within a defined area within a given time period.
- ***Fire Intensity:*** A general term relating to the heat energy released by a fire.
- ***Fire Lane Identification -*** Signs or curb markings that allow fire apparatus access roads to be readily recognized so that they will remain unobstructed and available for emergency use at all times.

- ***Fire Potential:*** The likelihood of a wildland fire event measured in terms of anticipated occurrence of fire(s) and management's capability to respond. Fire potential is influenced by a sum of factors that includes fuel conditions (fuel dryness and/or other inputs), ignition triggers, significant weather triggers, and resource capability.
- ***Fire Regime:*** The characterization of fire's role in a particular ecosystem, usually characteristic of particular vegetation and climatic regime, and typically a combination of fire return interval and fire intensity (i.e., high frequency, low intensity/low frequency, high intensity).
- ***Fire Return Interval:*** The length of time between fires on a particular area of land
- ***Fire Weather:*** Weather conditions that influence fire ignition, behavior, and suppression.
- ***Flame Length:*** The distance from the base to the tip of the flaming front. Flame length is directly correlated with fire intensity.
- ***Flaming Front:*** The zone of a moving fire where combustion is primarily flaming. Behind this flaming zone combustion is primarily glowing. Light fuels typically have a shallow flaming front, whereas heavy fuels have a deeper front.
- ***Fuel:*** Any combustible material, which includes but is not limited to living or dead vegetation, human-built structures, and chemicals that will ignite and burn.
- ***Fuelbed:*** An array of fuels usually constructed with specific loading, depth, and particle size to meet experimental requirements; also, commonly used to describe the fuel composition.
- ***Fuel Loading:*** The amount of fuel present expressed quantitatively in terms of weight of fuel per unit area.
- ***Fuel Model:*** Mathematical descriptions of fuel properties (e.g., fuel load and fuel depth) that are used as inputs to calculations of fire danger indices and fire behavior potential***.***
- ***Fuel Moisture Content:*** The quantity of moisture in fuels expressed as a percentage of the weight when thoroughly dried at 212 degrees Fahrenheit.
- ***Fuel Type:*** An identifiable association of fuel elements of a distinctive plant species, form, size, arrangement, or other characteristics that will cause a predictable rate of fire spread or difficulty of control under specified weather conditions.
- ***Gates and Barriers*** - Devices that restrict pedestrian and vehicle ingress and egress to and from a facility.
- ***Gate and Barrier Locks*** - Devices that are installed on gates and barriers to secure a property or facility.
- ***Goals:*** A goal is a broad statement of what you wish to accomplish, an indication of program intentions.
- ***Ground Fire:*** Fire that consumes the organic material beneath the surface litter ground, such as a peat fire.
- ***Hose Pull*** - The effective distance (150 feet is standard) that firefighters can drag a hose from fire apparatus to attack a fire. Hose pull is measured along a simulated path of travel accounting for obstructions and not "as the crow flies."
- ***Intensity:*** The level of heat radiated from the active flaming front of a fire, measured in British thermal units (BTUs) per foot.
- ***Ladder Fuels:*** Fuels that provide vertical continuity between strata, thereby allowing fire to carry from surface fuels into the crowns of trees or shrubs with relative ease. Ladder fuels help initiate and ensure the continuation of crowning.

- ***Local Responsibility Area (LRA)*** – Land where a city/county has primary financial responsibility for the prevention and suppression of wildland fires. LRA land is generally located within city boundaries.
- ***Live Fuels:*** Living plants, such as trees, grasses, and shrubs, in which the seasonal moisture content cycle is controlled largely by internal physiological mechanisms, rather than by external weather influences.
- ***Mid-flame Windspeed:*** The speed of the wind measured at the midpoint of the flames, considered to be most representative of the speed of the wind that is affecting fire behavior.
- ***Objectives:*** They contribute to the fulfillment of specified goals and are measurable, defined, and specific.
- ***Passive Crown Fire:*** Also called torching or candling. A fire in the crowns of trees in which single trees or groups of trees torch, ignited by the passing front of the fire.
- ***Safety Zone:*** A preplanned area of sufficient size and suitable location in the wildland expected to prevent injury to fire personnel without using fire shelters.
- ***Red Flag Warning:*** Term used by fire weather forecasters to alert forecast users to an ongoing or imminent critical fire weather pattern.
- ***Riparian:*** Situated or taking place along or near the bank of a watercourse.
- ***Spotting:*** Refers to the behavior of a fire producing sparks or embers that are carried by the wind and start new fires beyond the zone of direct ignition by the main fire***.***
- ***State Responsibility Area (SRA) –*** Land where the State of California (i.e. CAL FIRE) has primary financial responsibility for the prevention and suppression of wildland fires. All SRA land is located within County unincorporated areas; SRA does not include lands within city boundaries or in federal ownership
- ***Strategy:*** The general plan or direction selected to accomplish incident objectives.
- ***Surface Fire:*** Fire that burns loose debris on the surface, which includes dead branches, leaves, and low vegetation.
- ***Surface Fuels:*** Fuels lying on or near the surface of the ground, consisting of leaf and needle litter, dead branch material, downed logs, bark, tree cones, and low stature living plants.
- ***Topography:*** Referred to as “terrain.” The term also refers to parameters of the “lay of the land” that influence fire behavior and spread. Key elements are slope (in percent), aspect (the direction a slope faces), elevation, and specific terrain features such as canyons, saddles, “chimneys,” and chutes.
- ***Understory:*** Term for the area of a forest which grows at the lowest height level below the forest canopy. Plants in the understory consist of a mixture of seedlings and saplings of canopy trees together with understory shrubs and herbs.
- ***Values at Risk:*** People, property, ecological elements, and other human and other intrinsic values within the City. Values at Risk are identified by stakeholders as important to the way of life in the City and are particularly susceptible to damage from undesirable fire outcomes.
- ***Very High Fire Hazard Severity Zone (VHFHSZ)*** – A designated area in which the type and condition of vegetation, topography, fire history, and other relevant factors increase the possibility of uncontrollable wildland fire. Structures within a VHFHSZ require special construction features to protect against wildfire hazards; please consult with the local building department and refer to CBC Chapter 7A for specific requirements
- ***Wildland Fire Environment:*** The surrounding conditions, influences, and modifying forces of fuels, topography, and weather that determine wildfire behavior.

- ***Wildfire Risk Area*** – Land that is covered with vegetation, which is so situated or is of such an inaccessible location that a fire originating upon it would present an abnormally difficult job of suppression or would result in great or unusual damage through fire, or such areas designated by the fire code official. For purposes of this document, Wildfire Risk Area includes Very High Fire Hazard Severity Zones (see above), Wildland-Urban Interfaces (WUI), and similarly hazardous areas

Appendix B. *Relevant Federal, State and Local Regulations & Policies*

This appendix provides a detailed list and summary of the federal, state, county, and city level policies and regulations that pertain to this CWPP.

B.1 FEDERAL LEVEL POLICY

+ ***Disaster Mitigation Act (2000–present)***

  Section 104 of the Disaster Mitigation Act of 2000 (Public Law 106-390) enacted Section 322 - Mitigation Planning of the Robert T. Stafford Disaster Relief and Emergency Assistance Act - that created incentives for state and local entities to coordinate hazard mitigation planning and implementation efforts and is an important source of funding for fuels mitigation efforts through federal hazard mitigation grants.

+ ***National Fire Plan (NFP) (2000)***

  In 2000, dry climatic conditions resulted in a historic number of wildland fires within the United States (mainly the Western U.S.) It is estimated that 7.2 million acres, nearly double the 10-year average burned. Costs in damages including fire suppression activities were approximately 2.1 billion dollars. Congressional direction called for substantial new appropriations for wildland fire management. This resulted in action plans, interagency strategies, and the Western Governor's Association's, “A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment - A 10-Year Comprehensive Strategy - Implementation Plan”. This collectively became known as the National Fire Plan. This plan places a priority on collaborative work within communities to reduce their risk from large-scale wildfires.

+ ***National Cohesive Wildland Fire Management Strategy (2009)***

  The National Cohesive Wildland Fire Management Strategy is a strategic push to work collaboratively among all stakeholders and across all landscapes, using scientific best practices, to make meaningful progress towards the three goals: resilient landscapes, fire adapted communities, and safe and effective wildfire response. Its vision is to safely and effectively extinguish wildfire when needed; use wildfire where allowable; manage our natural resources; and as a nation, to live with wildland fire.

+ ***National Fire Protection Association***

  The NFPA maintains numerous codes and standards that provide direction on development in the WUI including:

  - NFPA 1, Fire Code, Chapter 17
  - NFPA 1140, Standard for Wildland Fire Protection – NFPA 1140 is a combination of Standards NFPA 1051 (Standard for Wildland Firefighting Personnel Professional Qualifications), NFPA 1141 (Standard for Fire Protection Infrastructure for Land Development in Wildland, Rural, and Suburban Areas), NFPA 1143 (Standard for Wildland Fire Management), and NFPA 1144 (Standard for Reducing Structure Ignition Hazards from Wildland Fire).

+ ***National Incident Management System (NIMS)***

  NIMS provides a systematic, proactive approach to guide government agencies, nongovernmental organizations, and the private sector to work together to prevent, respond to, recover from, and mitigate the effects of incidents, regardless of cause, size, location, or complexity, in order to reduce the loss of life and property and harm to the environment. The NIMS improves a community’s ability to prepare for and respond to potential incidents and hazard scenarios.

+ ***Los Padres National Forest Plan (2005)***

The Los Padres National Forest Plan provides strategic guidance for management of the forest for the next 10-15 years. The plan was revised in 2005 to emphasize objectives that are expected to result in the sustainability (social, economic, and ecological) of the national forest, and over the long-term, the maintenance of a healthy forest. Part 1 of the plan describes the national forest in the future, where it lies in the community framework, and the conditions the Forest Service desires. Part 2 details the 'tools' the resource staff will use to accomplish objectives that will contribute to reaching the desired conditions. Part 3 contains the design criteria and constitutes the 'rules' that the Forest Service will follow as the national forest implements projects and activities over time.

B.2 STATE LEVEL POLICY

+ ***California Strategic Fire Plan 2018***

The Strategic Fire Plan is one of the preeminent policies specified by the Board of Forestry and Fire Protection's (Board). The Board has adopted these Plans since the 1930s and periodically updates them to reflect current and anticipated needs. Over time, as the environmental, social, and economic landscape of California's wildlands has changed, the Board has evolved the Strategic Fire Plan to better respond to these changes and to provide CAL FIRE with appropriate guidance "…for adequate statewide fire protection of state responsibility areas" (PRC § 4130). This 2018 Plan reflects CAL FIRE's focus on (1) fire prevention and suppression activities to protect lives, property, and ecosystem services, and (2) natural resource management to maintain the state's forests as a resilient carbon sink to meet California's climate change goals and to serve as important habitat for adaptation and mitigation.

+ ***California State Multi-Hazard Mitigation Plan (Version 2018)***

The purpose of the State Multi-Hazard Mitigation Plan (SHMP) is to significantly reduce deaths, injuries, and other losses attributed to both natural and human-caused hazards in California. The SHMP provides guidance for hazard mitigation activities emphasizing partnerships among local, state, and federal agencies as well as the private sector.

+ ***California's Wildfire and Forest Resilience Action Plan (2021)***

This plan was created by the California Forest Management Task Force (established in 2018) and strategically accelerates efforts to restore the health and resilience of California forests, grasslands, and natural places, improve the fire safety of California communities, and sustain the economic vitality of rural forested areas. This plan integrates recommendations from existing state and federal plans regarding forest health and the wildfire crisis.

+ ***Public Resource Code Sections 4125-4137 – Fire Protection Responsibilities***

This policy defines suppression and prevention roles and responsibilities of agencies within and across administrative boundaries. Fire protection responsibility area designations directly correlate to specific financial responsibility for wildfire prevention and suppression actions. Area mutual aid agreements and assistance agreements are reviewed on a regular (annual) basis, to ensure accuracy in updates and procedures.

+ ***Public Resource Code Sections 4201-4204.1 – Fire Hazard Severity Zones***

This policy requires CAL FIRE to classify lands within State Responsibility Areas in accordance with the severity of fire hazard present for the purpose of identifying measures to be taken to slow wildfire rates of spread and to reduce the potential intensity of uncontrolled fires that threaten to destroy resources, life, or property. These measures are part of an overall strategy to implement community adaptability in the wildfire environment.

+ ***Public Resources Code Section 4291 and California Code of Regulations (CCR) 1299.1***

  A state law, effective in January 2019, this section requires 100-foot defensible space clearance around homes and structures for wildfire protection, but not beyond the property line. The code applies to all lands that have flammable vegetation. The regulations include several requirements for how the vegetation surrounding buildings and structures should be managed to create defensible space.

+ ***Public Resources Code 4292-93, 4296 and 14 CCR 1256: Fire Prevention for Electrical Utilities***

  These statutes and regulations address the vegetation clearance standards for electrical utilities. They include the standards for clearing around energy lines and conductors such as power line hardware and power poles. These regulations are critical to wildland fire safety because of the substantial number of power lines in wildlands, the historic source of fire ignitions associated with power lines, and the extensive damage that results from wildfires caused by power lines in severe wind conditions.

+ ***Public Resource Code Section 4296.5 – Railroads – CCR 1290 Railroad Right-Of-Ways***

  Established in 1999, this code empowers the Board Director to adopt regulations establishing fire prevention and hazard reduction standards that any Railroad Corporation or person owning a Railroad in this state must abide by. The resulting formulated PRC 4296.5 regulations are found in the California Code of Regulations (CCR's), Title 14; Article 2; Sections 1290 through 1295.

+ ***Public Resource Code Section 4421-4446 – Prohibited Activities***

  This series of codes specifies the prohibited human actions regarding setting fire or causing fire to be set to any forest, brush, or other flammable material which is on any land that is not his own, or under his legal control, without the permission of the owner, lessee, or agent of the owner or lessee of the land. Proper burn permitting needs are identified. Prohibited actions involving use of noncompliant industrial and/or mechanical equipment is also cited.

+ ***Public Resources Code 4740-4742 - Wildland Fire Prevention and Vegetation Management***

  In accordance with policies established by The Board, CAL FIRE shall assist local governments in preventing future wildland fire and vegetation management problems by making its wildland fire prevention and vegetation management expertise available to local governments to the extent possible within the department's budgetary limitations. Department of Forestry recommendations shall be advisory in nature and local governments shall not be required to follow such recommendations.

+ ***Public Resources Code 4770-4771 – California Wildfire and Forest Resilience Action Plan Goals***

  This series of codes establishes a task force to develop a comprehensive implementation strategy to track and ensure the achievement of the goals and key actions identified in the state's "Wildfire and Forest Resilience Action Plan" issued by the task force in January 2021.

+ ***California Code of Regulations Title 24***

  California's building regulations and standards are contained within Title 24 of the California Code of Regulations (CCR) published by the California Building Standards Commission. These are regulations passed by California agencies charged with enforcing the state's various laws and requirements for builders and property owners. Title 24 includes all regulations for how buildings are designed and constructed and are intended to ensure the maximum structural integrity and safety of private and public buildings. It contains requirements for the structural, mechanical, electrical and plumbing systems, and

requires measures for energy conservation, green design, construction and maintenance, fire and life safety, and accessibility.

+ ***2022 California Fire Code***

  This code establishes regulations affecting or relating to structures, processes, premises and safeguards regarding residences and historic buildings. The code includes: 1) hazards of fire and explosion arising from the storage, handling or use of structures, materials or devices; 2) conditions hazardous to life, property or public welfare in the occupancy of structures or premises; 3) fire hazards in the structure or on the premises from occupancy or operation; 4) matters related to the construction, extension, repair, alteration or removal of fire suppression or alarm systems; and 5) conditions affecting the safety of fire fighters and emergency responders during emergency operations.

+ ***California Building Code 2022 Chapter 7A (includes section 705A – roofing)***

  Establishes minimum standards for the protection of life and property by increasing the ability of a building located in any FHSZ within SRA or any WUI Fire Area to resist the intrusion of flames or burning embers projected by a vegetation fire and contributes to a systematic reduction in conflagration losses.

+ ***California Residential Code 2022 Chapter 3 Building Planning, Section R337 Material and Construction Methods for Exterior Wildfire Exposure***

  Establishes minimum standards for the protection of life and property by increasing the ability of a building located in any Fire Hazard Severity Zone within State Responsibility Areas or any Wildland-Urban Interface Fire Area to resist the intrusion of flame or burning embers projected by a vegetation fire and contributes to a systematic reduction in conflagration losses.

+ ***Government Code 51175-51189: Chapter 6.8 - Very High Fire Hazard Severity Zones***

  This code defines Very High Fire Hazard Severity Zones (VHFHSZ) and designates lands considered by the State to be a very high fire hazard. The purpose of this chapter is to classify lands in the state in accordance with whether a very high fire hazard is present so that public officials are able to identify measures that will retard the rate of spread, and reduce the potential intensity, of uncontrolled fires that threaten to destroy resources, life, or property, and to require that those measures be taken. For more detail and a discussion regarding wildland fire hazard severity in general and VHFHSZ's specifically, see Section 5.1.

+ ***Government Code 51189: WUI Building Standards (referenced from Ch. 6.8 in paragraph above, for emphasis)***

  This code directs the Office of the State Fire Marshal to create building standards for wildland fire resistance. The code includes measures that increase the likelihood of a structure withstanding intrusion by fire (such as building design and construction requirements that use fire-resistant building materials) and provides protection of structure projections (such as porches, decks, balconies and eaves) and structure openings (such as attics, eave vents, and windows). For more detail and further discussion on WUI building standards, see Section 5.4.

+ ***Government Code 65302.5: General Plan Fire Safety Element Review***

  This statute requires the Board to provide recommendations to a local jurisdiction's General Plan fire safety element at the time that the General Plan is amended. While not a direct and binding fire prevention requirement for individuals, General Plans that adopt the Board's recommendations will include goals and policies that provide for contemporary fire prevention standards for the jurisdiction.

+ ***California Health and Safety Code: DIVISION 12. Fires and Fire Protection; Chapter 1 Liability in Relation to Fires; Section 13000***

  Every person is guilty of a misdemeanor who allows a fire kindled or attended by him to escape from his control or to spread to the lands of any person other than the builder of the fire without using every reasonable and proper precaution to prevent the fire from escaping.

+ ***California Environmental Quality Act (CEQA)***

  The 1970 CEQA has evolved into one of the most prominent components of community planning in California. It requires state and local agencies to follow a protocol of analysis and public disclosure of environmental impacts in proposed projects and to include feasible measures to mitigate those impacts. Any proposed hazardous fuel treatment project recommended in this CWPP must comply with CEQA regulations.

+ ***Senate Bill 979: Water Quality, Supply, and Infrastructure Improvement Act of 2014: Protecting Rivers, Lakes, Streams, Coastal Waters, and Watersheds***

  This Act is a useful reference during planning and implementation of fuel treatment projects to reduce wildfire risk, because it can help to ensure those projects account for the protection and restoration of California's rivers, lakes, streams and watersheds, protect watersheds tributary to water storage facilities, and promote watershed health. It also determines priorities for water security, climate, and drought preparation.

+ ***California Civil Code 1103.C.3 : Law Governing Natural Hazard Disclosure***

  This code deals with the Transfer of Real Property and the Disclosure of Natural and Environmental Hazards: Article (3) states "A transferor of real property that is located within a very high fire hazard severity zone, designated pursuant to Section 51178 of the Government Code, shall disclose to any prospective transferee the fact that the property is located within a very high fire hazard severity zone and is subject to the requirements of Section 51182 of the Government Code". Details go on to include information regarding property transferor, information regarding agency, county assessor and map documentation.

+ ***California Emergency Services Act - Chapter 7, Section 8550-8551 (CESA)***

  The CESA ensures preparations within California will be adequate to deal with natural, manmade, or war-caused emergencies. It declares it necessary to give the Governor, chief executives and governing bodies of political subdivisions of the state emergency powers to provide for state assistance in the organization and maintenance of emergency programs The Act created the Office of Emergency Services, within the office of the Governor, and gave it the powers and duties to (1) provide for the assignment of functions to state entities to be performed during an emergency and for the coordination and direction of the emergency actions of those entities; (2) provide for the rendering of mutual aid by the state government and all its departments and agencies and by the political subdivisions of the state in carrying out the purposes of this chapter; and (3) authorizes the establishment of organizations and directing actions necessary to protect the health and safety and preserve the lives and property of the people of the state.

  It further declared the purpose of Chapter 7 and the policy of the state that all emergency services functions of the state be coordinated, as far as possible, with the comparable functions of its political subdivisions, of the federal government including its various departments and agencies, of other states, and of private agencies of every type, to the end that the most effective use may be made of all manpower, resources, and facilities for dealing with any emergency that may occur.

+ ***California Regional Water Quality Board***

The California State Water Resources Control Board (Board) has jurisdiction throughout California. Created by the State Legislature in 1967, the Board protects water quality by setting statewide policy, coordinating and supporting the Regional Water Board efforts, and reviewing petitions that contest Regional Board actions. There are nine regional water quality control boards that exercise rulemaking and regulatory activities by basins. (All proposed mitigation projects must adhere to CEQA regulations in planning and implementation phases. Primary concerns associated with wildland fire hazard mitigation actions involve addressing project design/engineering to reduce potential slope erosion or excess runoff during rain events.

+ ***California Air Resources Board***

The California Air Resources Board is responsible to reduce air pollution and protect public health. Their role is to set the state's air quality standards at levels to protect public health, identify and measure pollutants, research the cause and effect of air pollution problems and potential solutions, develop and adopt specific rules and regulations needed to achieve healthful air quality and lead California's efforts to reduce climate-changing emissions through measures that promote a more energy-efficient and resilient economy.

+ ***SB 465 - Property Assessed Clean Energy Program. Wildfire Safety Improvements. Chapter 837, 2018***

Measure expands, until January 1, 2029, Property Assessed Clean Energy (PACE) financing to allow cities and counties in very high fire hazard severity zones to authorize contractual assessments for property owners to finance wildfire safety improvements. Eligible wildfire safety improvements are improvements identified by CAL FIRE that can be fixed to an existing residential, commercial, industrial, agricultural or other building or structure, including ember-resistant roofs, dual-paned windows, driveways, and various ignition-resistant products such as walls, decks, and patio covers. This measure outlines a procedure to be taken by the local agency before PACE financing can be used for wildfire improvements.

+ ***AB 836 -Wildfire Smoke Clean Air Centers for Vulnerable Populations Incentive Pilot Program. Chapter 393, 2019***

Measure establishes the Wildfire Smoke Clean Air Centers for Vulnerable Populations Incentive Pilot Program. The grant program creates a network of clean air centers by providing funding to public facilities for smoke-protective filtration systems. The grant program prioritizes applications for projects located in a documented high smoke exposure area to mitigate the adverse public health impacts that result from wildfires and other smoke events. This measure sunsets on January 1, 2025.

+ ***SB 167 - Electrical Corporations. Wildfire Mitigation Plans. Chapter 403, 2019***

Measure requires each electrical corporation, as part of submitting their wildfire mitigation plans to the CPUC, to additionally include the impacts on customers who are receiving medical baseline allowances as part of their protocols related to mitigating the public safety impacts of disabling reclosers and deenergizing portions of the electrical distribution system.

+ ***SB 160 - Emergency Services. Cultural Competence. Chapter 402, 2019***

Measure requires cities and counties to integrate cultural competency in the next regular update to their emergency plan. It requires city and county local emergency managers to incorporate cultural competence into emergency plans, upon its next update, and at a minimum, describe how all cultural populations within its jurisdiction are served by emergency notifications, evacuations, sheltering, mitigation, prevention, planning, and preparedness. It requires cities and counties, when updating

emergency plans, to provide a forum for community engagement in geographically diverse locations to engage with culturally diverse communities.

+ ***SB 190 - Fire Safety. Building Standards. Defensible Space Program. Chapter 404, 2019***

Measure requires the SFM to develop both a model defensible space program and a WUI Fire Safety Building Standards Compliance training manual. It requires the SFM; to develop a model defensible space program for use by a city or county in the enforcement of existing defensible space provisions in law and consult with representatives from local, state, and federal fire services, local governments, building officials, utility companies, the building industry, and the environmental community. If a defensible space program is adopted, the local agency for enforcement of this program must have the authority to recover the actual cost of abatement and must have the authority to place it as a special assessment or lien on the property. In addition, it requires the SFM to develop, and update on a regular basis, a WUI products handbook listing products and construction systems that comply with the WUI Fire Safety building standards for: Exterior wall siding and sheathing; Exterior windows; Under eaves, including eave and cornice vents; Decking; Treated lumber and ignition-resistant materials; and Wood shakes and shingles roofing materials.

+ ***SB 670 -Telecommunications. Community Isolation Outage. Notification. Chapter 412, 2019***

Measure requires telecommunications providers to notify the Governor's Office of Emergency Services (CAL OES) whenever there is an outage limiting the ability for customers to make 911 calls or receive emergency notifications within 60 minutes of discovering the outage. It also requires CAL OES to notify the affected county office(s) of emergency services, the sheriff of any county, and any public safety answering point affected by the outage.

+ ***AB 1054 – Chapter 79 - Public utilities: wildfires and employee protection.***

  - Existing law authorizes the commission, in a proceeding on an application by an electrical corporation to recover costs and expenses arising from a catastrophic wildfire occurring on or after January 1, 2019, to allow cost recovery if the costs and expenses are just and reasonable, after consideration of the conduct of the utility, including consideration of specified factors.
  - This bill would establish the California Wildfire Safety Advisory Board consisting of 7 members appointed by the Governor, Speaker of the Assembly, and Senate Committee on Rules, as provided, who would serve 4-year staggered terms. The bill would require the board, among other actions, to advise and make recommendations related to wildfire safety to the Wildfire Safety Division or, on and after July 1, 2021, the Office of Energy Infrastructure Safety, as established pursuant to AB 111 or SB 111 of the 2019–20 Regular Session.

B.3 COUNTY LEVEL POLICY AND REGULATIONS

+ ***Ventura County Multi-jurisdictional Hazard Mitigation Plan (HMP) (2022)***

This Multi-jurisdictional Hazard Mitigation Plan was developed and adopted in 2005, with updates in both 2010 and 2015. In the 2022 update, a planning partnership was formed that expanded upon the partnership that was established during the 2015 update. This leverages resources and meeting requirements of the federal Disaster Mitigation Act for as many eligible local governments as possible. 10 incorporated municipalities and 14 special districts participate in this update.

+ ***Ventura County Community Wildfire Protection Plan (CWPP) (2010)***

This document serves as a CWPP for all of Ventura County. It was developed in collaboration with local, county, state, and federal agencies as well as community organizations within the county. Wildfire risks are identified, and priorities for funding and programs to reduce wildfire impacts on the communities at

risk within Ventura County are clarified. This CWPP is designed to be a "living" document that adapts to changes in the environment and needs in the various stakeholders within Ventura County.

+ ***Ventura County Fire Protection District Unit Strategic Fire Plan (2023)***

  This Unit Plan is part of the California Strategic Fire Plan that is used within the Ventura County Fire Department. This plan works with stakeholders and cooperators to create programs, policies, and procedures that will increase the safety of Ventura County residents. It also identifies and evaluates wildland fire hazards to minimize the negative effects of wildland fire on the natural and human-made environments.

+ ***Ready Ventura County Emergency Preparedness Guide (2015)***

  This guide was developed by the Ventura County Sheriff Office of Emergency Services. It provides Ventura County residents with emergency numbers for police, fire, medical, and the emergency management offices, as well as information on the Ventura County Emergency Notification Systems. The guide also instructs residents on evacuations and shelter in place, how to get an emergency supply kit, access and functional needs, and family emergency communication plans. The guide educates residents about utilities shut off and safety and different types of hazards. Finally, the guide highlights some ways that residents can get involved with emergency preparedness/recovery organizations.

+ ***Transportation Emergency Preparedness Plan (2020)***

  This plan was developed by the Ventura County Transportation Commission and the Santa Barbara County Association of Governments, with funding from the California Department of Transportation. It addresses challenges related to disasters that affect one or both counties, and outlines roles and responsibilities of transit providers, emergency response agencies, government and non-governmental organizations, communication procedures, and summarizes transit resources.

+ ***Ventura County Fire Department, Ready, Set, Go! Your Personal Wildfire Action Plan (2016)***

  This document was developed by the Ventura County Fire Department and is intended to help residents prepare for a wildfire. It outlines information on the wildland urban interface and defensible space and includes guidance on preparing homes and families for a wildfire. It also includes several checklists for residents to use and contains information on how residents can develop their own wildfire action plan.

+ ***Ventura County Fire Department Fire Hazard Reduction Program, Plant Reference Guide (2019)***

  This guide was developed by the Ventura County Fire Department and serves as a reference guide for commonly used native and ornamental plants. It gives users characteristics of each plant listed but is not intended to be an approved plant list.

+ ***Ventura County Fire Department Guidelines – Guideline 410 Prohibited Plant List***

  This document provides a list of plants and trees that are not allowed within a new required defensible space or fuel modification zone. Any of these plants and trees that are found in existing defensible space or fuel modification zones are recommended to be thinned or removed.

+ ***Ventura County Fire Department Guidelines – Guideline 416 Landscape and Fuel Modification Zone Plans***

  This provision requires properties that are located within State Mapped Fire Hazard Severity Zones or a local Hazardous Fire Area to maintain proper defensible space in accordance with State and Local Laws

and Ordinance. It requires a fire department plan review for any new projects are located within a State Mapped Very High, High, or Moderate Fire Hazard Severity Zone, or a local Hazardous Fire Area determined by Ventura County Fire Department. Plans are reviewed for compliance with the Ventura County Fire Department Fire Code, Standards 515, 517, 410, 417, 418, Government Code 51182, PRC Section 4291, CCR Title 14 Section 1299.03, and CCR Title 19 Section 3.07, as applicable.

+ ***Ventura County Fire Department Guidelines – Guideline 418 Defensible Space***

  This document is intended to supplement VCFD Standard 515 on Defensible Space and Fuel Modification Zone requirements and State law. It provides a guide for the implementation of requirements contained in Standard 515.

+ ***Ventura County Fire Department Guidelines – Guideline 420 Changes in Defensible Space Laws and Regulations***

  This document details changes in State Laws and Regulations over the past couple of years, which have resulted in changes in how defensible space requirements are applied in Ventura County.

+ ***Ventura County Fire Department Standards – Standard 515 Defensible Space and Fuel Modification Zones***

  These provisions provide the minimum requirements for installation, maintenance, and spacing for plants, trees, other vegetation and combustible items within a defensible space and fuel modification zones in Ventura County.

+ ***Ventura County Fire Department Standards – Standard 517 Application of Mulch and Chips in Defensible Space***

  These provisions provide the minimum requirements for the application of combustible mulch and wood chips in defensible-space zones.

+ ***Ventura County Health Care Coalition, Preparedness Plan (2018)***

  This plan details the organization, protocols, and procedures of the Ventura County Health Care Coalition and outlines how the Ventura County Health Care Coalition prioritizes and works collectively to develop and test operational capabilities that promote communication, information sharing, resource coordination, and operational response and recovery. It provides the structure for multi-facility responses within the Operational Area and coordinates response to events that exceed the capabilities for individual healthcare entities by supplementing with regional, state, or federal resources. This plan is not intended to replace existing facility disaster plans, but to support them.

+ ***Ventura County Operational Area Emergency Operations Plan (2021)***

  This plan includes the County's planned response to natural, human caused and technological disasters or emergences and an overview of operational concepts. It identifies components of the County's emergency management organization within the Standardized Emergency Management System, the National Incident Management System, and describes the overall responsibilities of the federal, state, and county entities for protecting life, property, the environment and assuring the overall well-being of the population.

+ ***Ventura County 2040 General Plan***

  This long-range plan guides decision-making establishes rules and standards for development and county improvements, and helps to inform residents, developers, and decision-makers. It is used by the

Board of Supervisors, Planning Commission, and County staff to make decisions with direct or indirect land use and resource management implications, and provides a framework for inter-jurisdictional coordination of planning efforts among officials and staff of the County and other government agencies.

B.4 CITY | COMMUNITY LEVEL POLICY

+ ***City of Ojai Municipal Code Title 9, Building Regulations***

The Ojai Municipal Code (Building code of the City of Ojai) adopts the California Building Code, 2019 Edition (Part 2 of Title 24 of the California Code of Regulations), as amended and in effect on January 1, 2020.

+ ***City of Ojai General Plan – Land Use Element (1997)***

The Land Use Element of City of Ojai General Plan was adopted in May 1997. It outlines the city's fundamental land use philosophy regarding appropriate types, intensity, and location of new development, and appropriate means for maintaining the area's environmental, social, physical, and economic health and vitality.

+ ***City of Ojai General Plan – Safety Element (1991)***

The Safety Element of the City of Ojai General Plan was adopted in September 1991. Tailored to the specific safety issues which concern the City of Ojai, the Safety Element combines the State of California requirements for safety elements and seismic safety elements into one coherent document. It provides for protection of the community of Ojai from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, and dam failure; slope instability leading to mudslides and landslides; subsidence and other geologic hazards known to the city; flooding; and wildland and urban hazards. The Safety Element also addresses evacuation routes, peakload water supply requirements, and minimum road widths and clearances around structures.

+ ***City of Ojai Emergency-Operations Plan (2013)***

The Emergency Operations Plan (EOP) for the City of Ojai addresses the planned response to extraordinary emergency situations associated with natural disasters, technological and intentional incidents, and national security emergencies in or affecting the City. This plan does not address normal, day-to-day emergencies or the well-established and routine procedures used in coping with such emergencies. Instead, the operational concepts reflected in this plan focus on potential large-scale disasters which can generate unique situations requiring expanded emergency responses.

+ ***City of Ojai Community Disaster Guide (2022)***

The City of Ojai Community Disaster Guide was developed in coordination with Ventura County Sheriff's Department, the Ventura County Fire Department, District 1 County Supervisor's office, local media, schools, businesses and healthcare, and a number of Ojai Valley stakeholders. This guide provides residents with information about how to stay informed, engaged and prepared for disaster.

+ ***City of Ojai Community Forest Management Plan (2009)***

The City of Ojai Community Forest Management Plan provides a framework for public policy decisions regarding the future care of the Community Forest. It is also to be used as a guide for the selection, planting, pruning, protection, and replacement of City trees. This document is intended to serve as a source document that contains a clear set of priorities and objectives, and sets them in time with a budget.

+ ***Southern California Edison 2020-2022 Wildfire Mitigation Plan & Update***

  The 2020-2022 plan includes infrastructure hardening, vegetation management, detailed inspections and remediations, and situational awareness. SCE's WMP also emphasizes Public Safety Power Shutoff (PSPS) resilience and community engagement, particularly for under-represented groups and our access and functional needs (AFN) customers.

  The primary objective of SCE's WMP is to protect public safety, and includes an actionable, measurable, and adaptive plan for 2020 through 2022 to reduce the risk of potential wildfire causing ignitions associated with SCE's electrical infrastructure in High Fire Risk Areas (HFRA) through enhanced system hardening, situational awareness, and operational practices.

  The 2022 WMP update describes SCE's overall strategy of deploying a suite of complementary mitigations to the sections of its overhead distribution facilities where an ignition has the most potential of growing into a significant wildfire. It also outlines how SCE has matured in its wildfire mitigation capabilities and long-term plan to further advance risk-informed decision making, data management, grid hardening, and community engagement efforts.

+ ***Lake Casitas Resource Management Plan (2010)***

  The Lake Casitas Resource Management Plan was developed in accordance with the National Environmental Policy Act of 1969 (NEPA), as amended, and serves as a long-term plan that will guide future actions in the Plan Area. It is based on a comprehensive inventory of environmental resources and facilities, and input from local, state, and federal agencies, the Casitas Municipal Water District, and the general public. The purpose of this plan is to provide a program and set of policy guidelines necessary to encourage orderly use, development, and management of the lake and the surrounding lands.

Appendix C. *Firefighting Capacity and Fire Behavior Correlation*

Evaluating the effectiveness of firefighting resources against wildfire is a complex matter. On the same wildland fire there are locations where firefighters can be successful in defending structures or securing portions of the fire's perimeter, while at the same moment in time firefighters elsewhere on the fire are being over matched by the intensity and rate of spread of the fire. Elements such as the alignment of the fire spread (head or flacking fire versus backing fire) can significantly change the fireline intensity faced by firefighters. Other elements which can influence firefighter success include assess, topography, the ability to secure a safe operational space, and the availability of aerial resources to support ground operations.

A common standard used to evaluate the potential of firefighting resources to succeed on the fire ground are fire suppression interpretations based on flame length found in the Wildland Fire Incident Management Field Guide (NWCG, 2014). Generally, these interpretations evaluate what type of firefighting resources would be required to successfully suppress the head of a wildland fire based on the observed fire length (Table 29). Since flame lengths can be directly related to potential firefighting success, these breakpoints are used for classifying modeled fire behavior throughout the CWPP.

Table 29. Suppression capabilities based on flame lengths found at the flaming front of a wildfire

Flame Lengths (feet)	Fireline Intensity (BTU/foot/Second)	Interpretation
0-4	0-100	Fires can be generally attacked at the head or flanks by persons using hand tools. Handlines should hold the fire
4-8	100-500	Fires are too intense for direct attack at the head of the fire by persons with hand tools. Handlines cannot be relied upon to hold the fire. Equipment such as dozers, engines and retardant aircraft can be effective.
8-11	500-1,000	Fires may present serious control problems – torching out, crowning and spotting. Control efforts at the head of the fire will probably be ineffective.
11+	1,000+	Crowning, spotting and major fire runs are common. Control efforts at the head of the fire are ineffective.

Caution: These are not guidelines to personnel safety; fires can be dangerous at any level of intensity; Wilson (1977) has shown that most fatalities occur on small fires or isolated sections of large fires. Source: NWCG Fireline Handbook, Appendix B, Fire Behavior, April 2006

The classifications in Table 29 provide insights into resource capabilities but can be misinterpreted if applied out of context. For example, 8-foot flame lengths can be successfully suppressed by engine crews using hose lays, if they are able to approach the fire from a direction where convective and radiant heat are focused away from the firefighter. The same 8-foot flame length will likely overwhelm firefighters positioned in a manner where they are receiving large portions of the heat flux from the fire. This can be the case where firefighters are performing structure defense or attempting a frontal assault on the advancing fire front. It has been found that convective energy transferred by wind gusts, fire whirls, or air turbulence can significantly increase the total heat transfer to the firefighter and increase the required safety zone size necessary to engage the fire (Butler, Cohen, 1998).

Appendix D. *Fuel Treatment Prescriptive Guidelines and Techniques*

This appendix provides fuel treatment prescriptions and guidelines to assist the City, County and property-owners in implementing fuel treatments. This prescriptive guidance incorporates fire behavior assessment factors and best management practices (BMPs) for achievable wildfire hazard mitigation actions. Understanding and working within BMP standards will help minimize impacts to surrounding natural resources.

D.1 ROADSIDE FUEL TREATMENT PRESCRIPTIVE GUIDELINES

The following table describes the intensity levels for roadside and driveway fuel treatments:

Table 30. Roadside Fuel Treatment Prescriptive Guidelines

Location → / Fuel Type	Primary Zone (A) (10' minimum; up to 50') (distance varies with terrain & accessibility)	Secondary Zone (B) (50' – 100' from centerline) (distance may be constrained by terrain & accessibility)
Grass/ Forbs	Reduce fuel depth to 1 inches.	Treatment not needed.
Surface dead/down material	Remove all large (>3-inches diameter) dead/down material.	Remove up to 75 percent of >3" diameter dead/down material.
Chaparral/Shrub	Remove all chaparral vegetation within this zone. Retain the root crown to promote soil stability.	Remove up to 75 percent of chaparral vegetation. Widely spaced small pockets or clumps of chaparral/shrubs are permitted. Pockets/clumps of chaparral remaining should be healthy, early seral stage plants. Chipped or masticated material may be "blown" back onto the slope where feasible to enhance soil coverage.
Trees Overstory (without chaparral/shrub understory)	Prune all trees to 6-feet or ½ of the live crown height, whichever is less. Remove branches extending over roadways to a minimum height of 15-feet. Thin/remove smaller trees leaving larger trees (6-inch DBH) with crown spacing up to 10-feet.	Same treatment as Zone A with the exception of overstory spacing. Overstory canopy should be more dense than Zone A to provide shading of the surface to limit potential development of grass or shrub understory vegetation.
Trees Overstory (with chaparral/shrub understory)	Thinning specifications, same as Trees Overstory (without understory), but remove all understory chaparral/shrubs below trees in this zone.	Remove all chaparral from the understory of the tree canopy. Where crown cover allows, ensure shading of the surface to limit potential development of grass or shrub understory vegetation.

D.2 VEGETATION/FUEL TREATMENT PRESCRIPTIVE GUIDELINES

The following table describes prescriptive guidelines for vegetation management in the HIZ. Refer to other sections of the CWPP for guidance on Zone 0 – Ember resistant zone.

Table 31. Vegetation Management Prescriptive Guidelines

Location →	Primary Defense Zone (1) (5 – 30' from a structure)	Fuel Reduction Zone (2) (30' – 100' from a structure)	Fuel Reduction Zone (3) (100' and greater from a structure)
Fuel Type	*Based on California Public Resources Code 4291 and HIZ Recommendations*		*Based on Firefighter Safety*
Grass/ Forbs	Reduce fuel depth to 2-inches maximum.	Reduce grass height to 4" or less. Longer grass in discontinuous open areas is acceptable.	Treatment may not be needed.
Surface Dead/Down Material	Remove all dead/down materials.	Reduce dead/down flammable material to < 3" depth	Reduce heavier pockets of dead/down flammable material to < 5" depth.
Chaparral/ Shrub	Remove all but individual specimen chaparral plants. Individual ornamental/native shrubs should be spaced at a minimum 2x shrub height.	Remove up to 75 percent of chaparral vegetation. Allow for intermittent small pockets or clumps of chaparral/shrub vegetation. Pockets and clumps of chaparral remaining should be healthy, all dead material removed and limbed to 1/3 height of chaparral crown.	Less intensive chaparral/shrub vegetation removal with up to 30 foot for spacing of pockets and clumps of chaparral and shrubs. The remaining pockets and clumps of chaparral should be healthy, all dead material removed.
Trees Overstory (without chaparral/shrub understory)	Thin smaller trees leaving larger trees (>than 6-inches DBH) at 10-20 ft crown spacing limb/prune lower branches 6-feet above grade level, or lower 1/3 of tree height on smaller trees. Remove dead standing trees.	Thin smaller trees leaving larger trees (> than 6-inches DBH) at approximately 10 foot crown spacing; limb/prune lower branches 6-feet up, or lower 1/3 of tree height on smaller trees; remove all broken limbs and dead material.	Limb and prune lower branches of larger trees up to 6-feet and remove all broken limbs and dead material.
Trees Overstory (with chaparral/shrub understory)	Thinning specifications: the same as Overstory without Chaparral /shrub understory Zone 1. Understory: remove chaparral/shrub; limb/prune healthy ornamental shrubs to 1/3 of shrub height, maintain spacing between shrubs.	Thinning specifications are the same as Trees Overstory without Chaparral/shrub understory (Zone 2). Understory: occasional less dense chaparral/shrub or small tree clump in openings is acceptable.	Thinning specifications are the same as Trees Overstory without chaparral/shrub understory in Zone 3. Understory specifications are the same as Chaparral/shrub in Zone 3 except the pockets and clumps are limited to tree openings (non-canopy).

D.3 IMPLEMENTATION GUIDELINES FOR FUEL TREATMENTS

The following describes possible restrictions to implement fuel treatments:

Implementation Guidelines for Primary Travel Routes Fuel Treatment Levels:

The following guidelines apply to the implementation of primary travel routes fuel treatments:

- CEQA may be required prior to implementation of all site-specific projects.
- Shrubs will vary in size randomly scattered across the project area. Chipped material along roads should not exceed 4-inches in depth.
- No piled material will be retained in the treatment area.
- Boundaries between treatment levels will maintain free-form shapes and feathered edges that replicate natural patterns and profiles in surrounding landscape; avoid straight lines by scalloping and feathering along edges of vegetation. The feathering of edges includes undulating edges horizontally and diverse heights of the brush retained on site.
- Precautions will be taken to prevent scarring of trees by equipment.
- Signs will be posted warning the public of potential hazards during fuel treatment activities.

Invasive Species/Noxious Weeds

- To limit the spread and establishment of invasive plant species into the treatment areas, any off-road heavy equipment used during project implementation will be washed free of noxious weeds and seeds before entering project areas. If any equipment works in an area where invasive species/noxious weeds occur, it will be washed; especially the undercarriage, to remove weed propagules prior to entering other work locations. Equipment will not be washed on slopes where water run-off may reach streams.
- All equipment staging locations will be located away from known areas with noxious weed occurrences and outside of riparian habitat area.

Cultural Resources

- Any known cultural resources within the proposed treatment area will be protected. If any sensitive cultural resources are found, work will stop, and a qualified Archaeologist will be notified.

Soil and Watershed

- Every effort should be made to minimize damage to the soil surface in order to reduce potential for erosion and sediment transport due to project implementation activities.
- No mechanical equipment use on slopes greater than 30 percent with following exception: Mastication can occur on slopes greater than 30 percent where the equipment is operating on slopes less than 30 percent and accessing steeper slopes with a boom arm.
- Chipped or masticated material may be “blown” back onto the slope where feasible to enhance soil coverage.

Tree Removal

- All live tree removal will follow the City of Ojai Municipal Code for the protection of heritage trees (Title 4, Chapter 11) and the Ventura County Tree Protection Ordinance, (https://vcrma.org/en/tree-permits-and-the-tree-protection-ordinance).
- Non-native pines, eucalyptus, acacia, cypress should be prioritized for removal.
- Any pruning of protected tree species will follow the ordinances of the jurisdictional governmental agency.
- The transportation of any firewood generated during the removal of non-native tree species should be limited to prevent spread of potential insects or diseases

D.4 RECOMMENDED BEST MANAGEMENT PRACTICES (BMP'S)

- Environmentally Sensitive Habitat Areas (ESHA) will be marked on project area maps.
- When operating equipment off of roadways the use of rubber tracked equipment, with a low ground pressure coefficient is preferred.
- Known landslide and unstable areas should be avoided for safety reasons and because vegetation treatment activities may result in increased potential for mass wasting and erosion.
- Heavy equipment should not work on slopes greater than 30%. Movement of any heavy equipment across slopes should be minimized. Heavy equipment will not be used in riparian areas.
- When treating herbaceous/grass fuels; mowing or weed whipping is the preferred over discing to limit soil disturbance.
- To protect streams and stream courses, the following shall be implemented:
  - Activities within the riparian zone of any stream or top of bank, whichever is further from the water course, shall be subject to a setbacks
  - Location and method of stream course crossing should be identified prior to fuel reduction activities to protect the stream course.
  - Project generated vegetation debris shall be removed from the stream course.
  - Water bars and other erosion control structures will be located as necessary to limit run-off and sediment movement into stream courses.
- No servicing or refueling of equipment will occur on site. Operators must remove residues, waste oil, engine coolants, and other harmful materials from all worksites. Spill containment will be established prior to any on-site servicing or refueling

D.5 FUEL TREATMENT IMPLEMENTATION TIMING

The treatment of hazardous fuels as proposed in this CWPP are not of the type or magnitude that could have a negative effect on species response from the various plant communities associated with the Planning Area. Typically, only the use of prescribed fire, mastication or crushing to eliminate standing chaparral requires a consideration of how individual species will recover following a treatment. Species response to prescribed fire often is related to the seasonality of the treatment. Lower intensity spring-time prescribed fires when used to eliminate chaparral vegetation has been found to favor the recovery of sprouting chaparral species over those that require a recovery response from seeds stored in the soil. Over time, the continued use of low intensity fire can shift the species composition of a chaparral stand (Beyers, Wakeman, 1997).

+ **Herbaceous vegetation/Grass** – Herbaceous fuels are most effectively treated following curing of the individual plants. When cured, these grass-like fuels have dispersed their seeds helping to assure their continued presences as part of the landscape. Treating herbaceous fuels after they have cured also minimizes regrowth following treatment. When looking to eliminate non-native herbaceous fuels, treating this vegetation before it has set seed will, over time, help to reduce the abundance of a species on the landscape. Herbicides can also be effective in killing targeted non-native species before they sow their seed. However, the use of herbicides on public lands can be controversial and require an impact analysis following California Environmental Quality Act (CEQA) or National Environmental Protection Act (NEPA) protocols.

+ **Oaks** – The most widely recommended time to prune oak species is during July or August, when the trees are not normally growing, and when the dry weather is less likely to support pathogens that may attack the wounds. As much as possible, avoid pruning large limbs as this exposes the tree to possible infection that can take many years to recover https://calscape.org/Quercus-agrifolia-(Coast-Live-Oak), accessed June 16, 2023.

+ Ventura County and the City of Ojai have existing tree ordinances which can impact the treatment of native oaks and other protected species. Specific direction regarding oak tree maintenance can be found in a variety of County and City planning documents. Property owners are advised to contact the jurisdictional planning authority prior to undertaking any oak tree maintenance or removal to understand site specific regulations. The following is a sample of existing oak tree ordinances germane to the Planning Area.

  - Ojai Municipal Code, Title 4, Chapter 11, Preserving, Cutting or Removal of Oak, Sycamore, Heritage, and Other Designated Mature Trees.
  - Ventura County Code Section 8107-25 – Tree Protection Regulations, non-Coastal Zone, https://docs.vcrma.org/images/pdf/planning/tree-permits/Tree-Protection.pdf

+ **Chaparral** – Treatments of chaparral species traditionally focus on thinning or removal of stands of this vegetation. Standards found in Ventura County Fire Protection District Ordinance 31, Appendix W, establishes requirements for defensible space and defines when a Fuel Modification Plan and Permit may be required.

  Removal of chapparal with hand tools is not time sensitive regarding species response, as most chaparral species will sprout from the underground root ball. To eliminate chaparral species from a treatment zone, the use of herbicides to kill regrowth or grubbing out the root ball is required. Both treatments required attention over time to fully eliminate chaparral from the desired area.

  The City of Ojai has a Hillside Erison Control Ordinance, Section 9-11.101, which speaks to retaining native vegetation to control potential run-off and erosion. This does not conflict with the requirements of County

Fire that defensible space be established and maintain in High or Very High Fire Hazard Severity Zones. Concerns of conflicting direction should be directed to the local fire official or City of Ojai Community Development Department.

+ **Pile Burning for Defensible Space** – Burning cut material as a mechanism of disposal is not permitted by Ventura County Fire. Clearing land for the purpose of non-agricultural development or for fire hazard clearance is not considered agricultural burning and not allowed with an agricultural burn permit (Ventura County Air Pollution Control District, Rule 56). Larger scale Vegetation Management Projects (VMP) are facilitated through the Ventura County Wildland Unit.

Appendix E. *Public Workshop*

The following is a sample agenda provided as part of the 1st and 2nd public workshops help in Ojai at Kent Hall and the Oak View Community Center. Videos of parts of each workshop are available on the Ojai Valley Fire Safe Council's CWPP website: https://firesafeojai.org/past-events/

Agenda

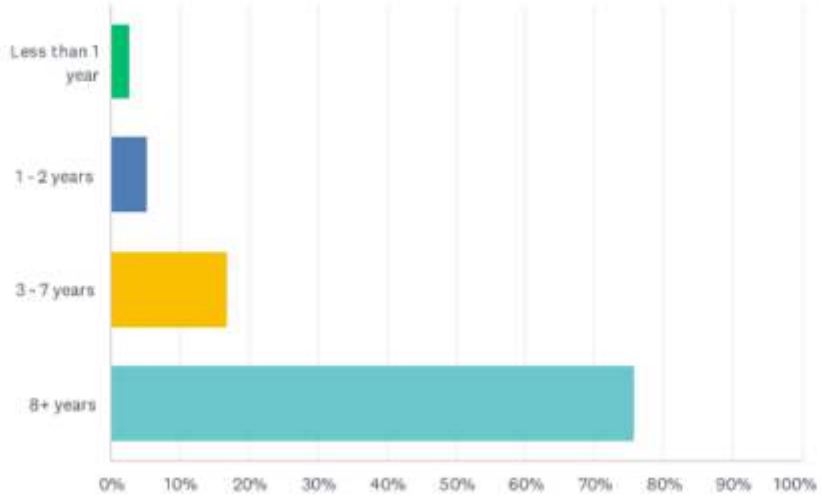
Meeting Title:	Ojai Valley CWPP Public Workshop #1
Date/Time	February 15, 2023 / 5:00 to 9:00 p.m.
Meeting Location:	Kent Hall, 111 W Santa Ana St, Ojai, CA 93023
Project	Ojai Valley Community Wildfire Protection Plan (CWPP)
Distribution:	All Stakeholders

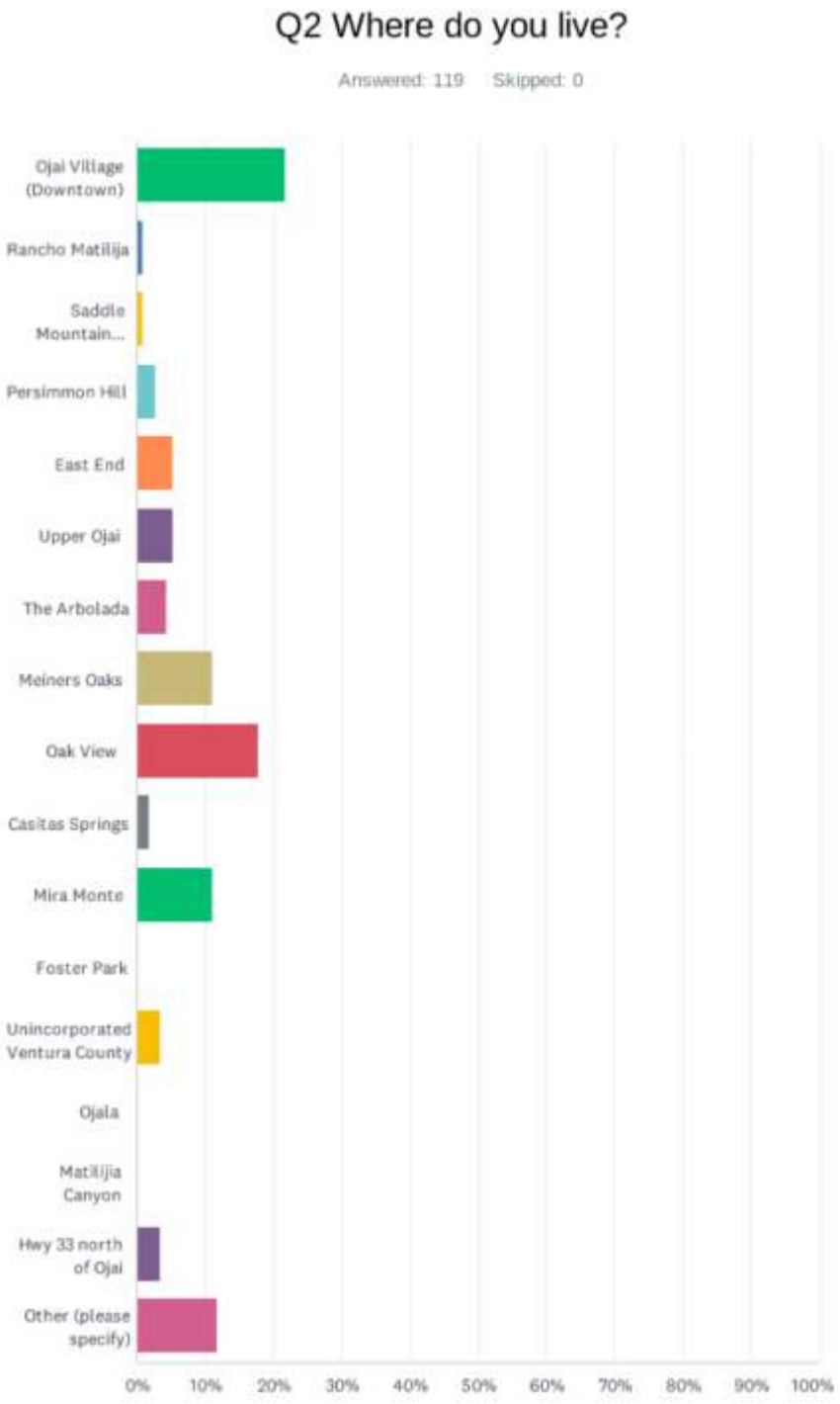
Item #		*Time*
1	Welcome and Introduction	JH & OVFSC
2	Project Overview + Primary Goals and Objectives + Project Team and Partners + Timeline	OVFSC
3	How This Evening Works + Understand CWPP Process + Input into Goals and Objectives + Community Values and Assets + Issue Identification	OVFSC
4	An Overview of the CWPP Process + Plan Requirements and Potential Outcomes + Collaborative Approach	OVFSC
5	Questions and Answers/Break	ALL
6	Components of the Plan + Preliminary Hazard and Risk Assessments + Areas of Wildfire Concerns + Goals and Objectives + Public Engagement	
7	Questions and Answers	ALL
8	Interactive Session	ALL
9	Adjourn	OVFSC

Appendix F. *Results of Public Survey*

Q1 How long have you lived in the Ojai Valley and/or surrounding areas?

Answered: 119 Skipped: 0

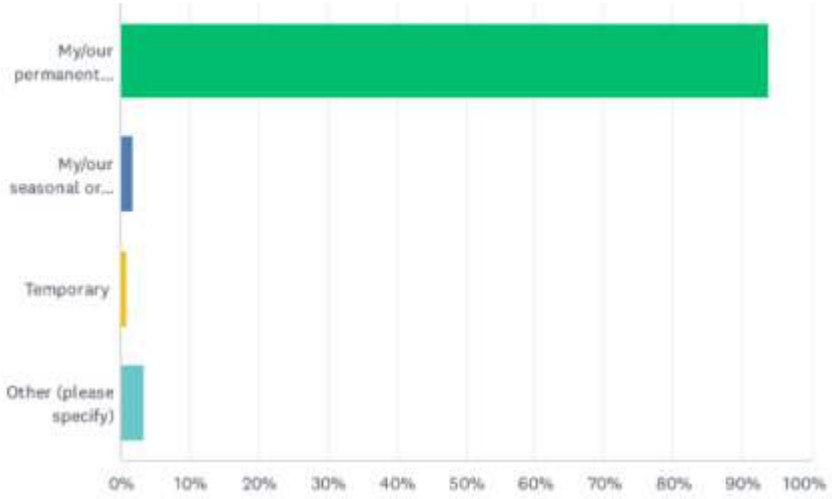



Q2 Where do you live?
Answered: 119 Skipped: 0
Ojai Village (Downtown)
Rancho Matilija
Saddle Mountain...
Persimmon Hill
East End
Upper Ojai
The Arbolada
Meiners Oaks
Oak View
Casitas Springs
Mira Monte
Foster Park
Unincorporated Ventura County
Ojala
Matilija Canyon
Hwy 33 north of Ojai
Other (please specify)
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%

ANSWER CHOICES	RESPONSES	
Ojai Village (Downtown)	21.85%	26
Rancho Matilija	0.84%	1
Saddle Mountain Estates	0.84%	1
Persimmon Hill	2.52%	3
East End	5.04%	6
Upper Ojai	5.04%	6
The Arbolada	4.20%	5
Meiners Oaks	10.92%	13
Oak View	17.65%	21
Casitas Springs	1.68%	2
Mira Monte	10.92%	13
Foster Park	0.00%	0
Unincorporated Ventura County	3.36%	4
Ojala	0.00%	0
Matilija Canyon	0.00%	0
Hwy 33 north of Ojai	3.36%	4
Other (please specify)	11.76%	14
TOTAL		119

Q3 Is this home (pick one)

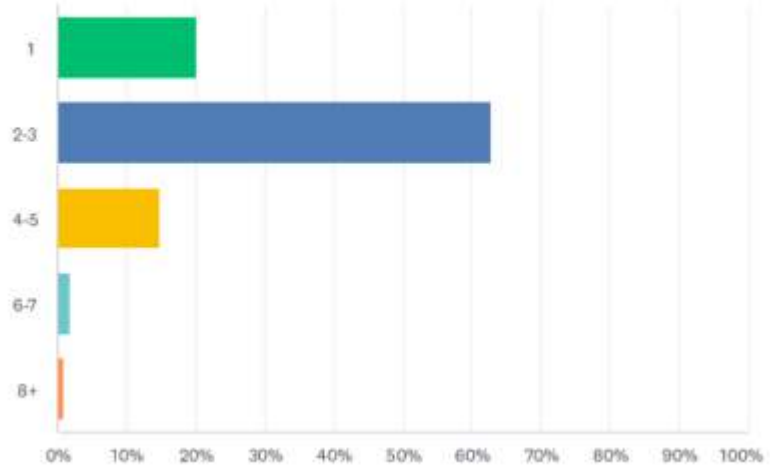
Answered: 115 Skipped: 4



ANSWER CHOICES	RESPONSES	
My/our permanent address	93.91%	108
My/our seasonal or vacation address	1.74%	2
Temporary	0.87%	1
Other (please specify)	3.48%	4
TOTAL		115

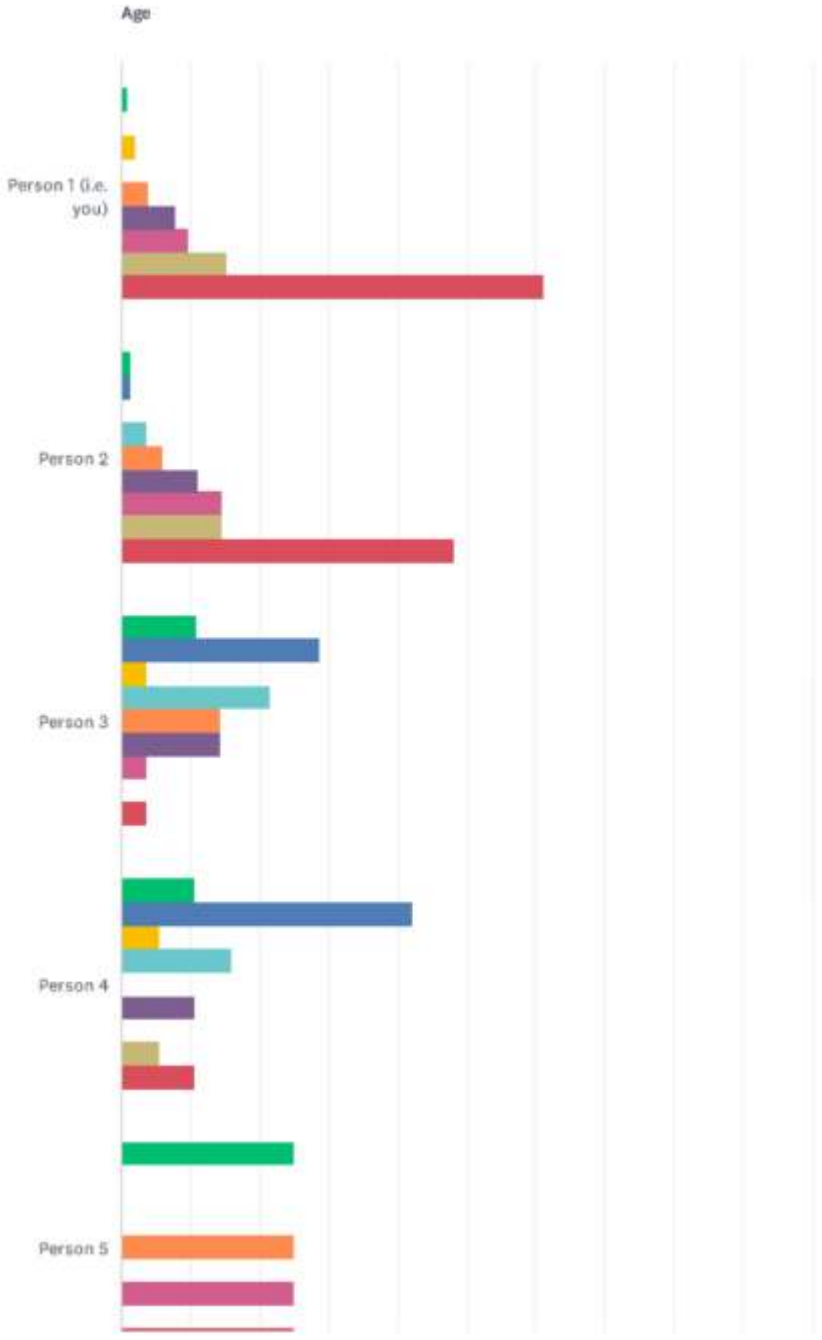
Q4 How many people currently reside in your home (yourself included)?

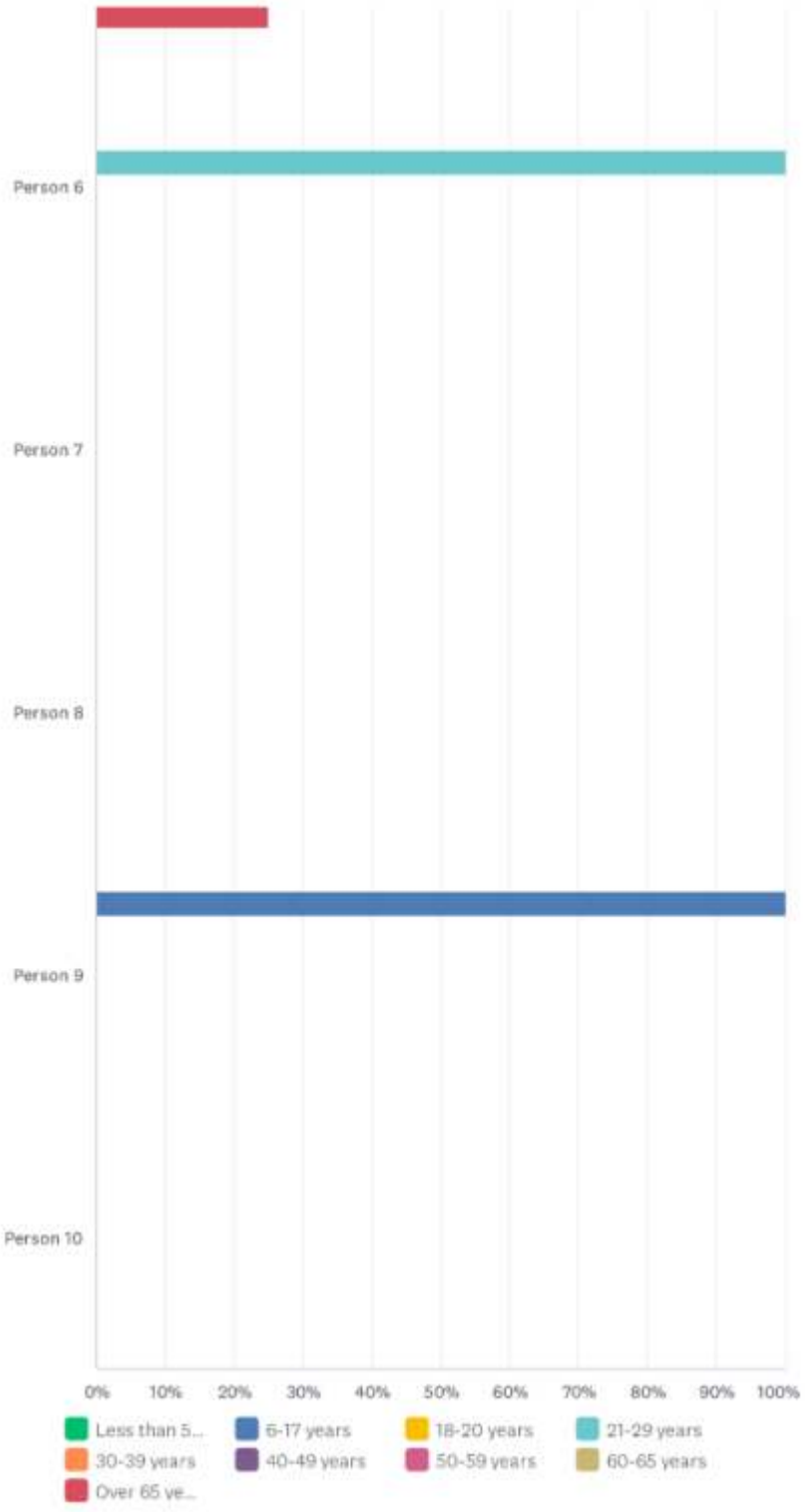
Answered: 115 Skipped: 4

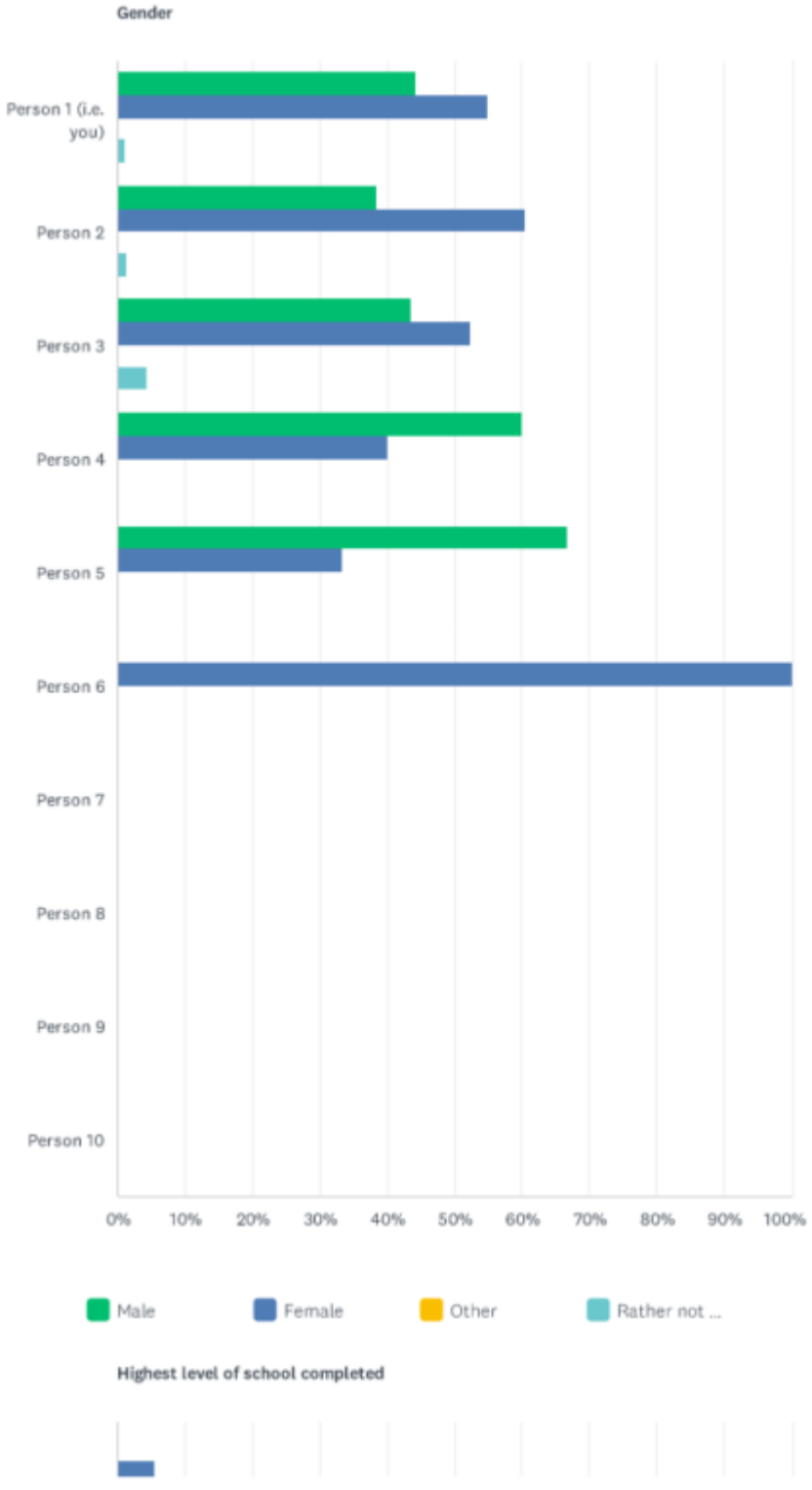


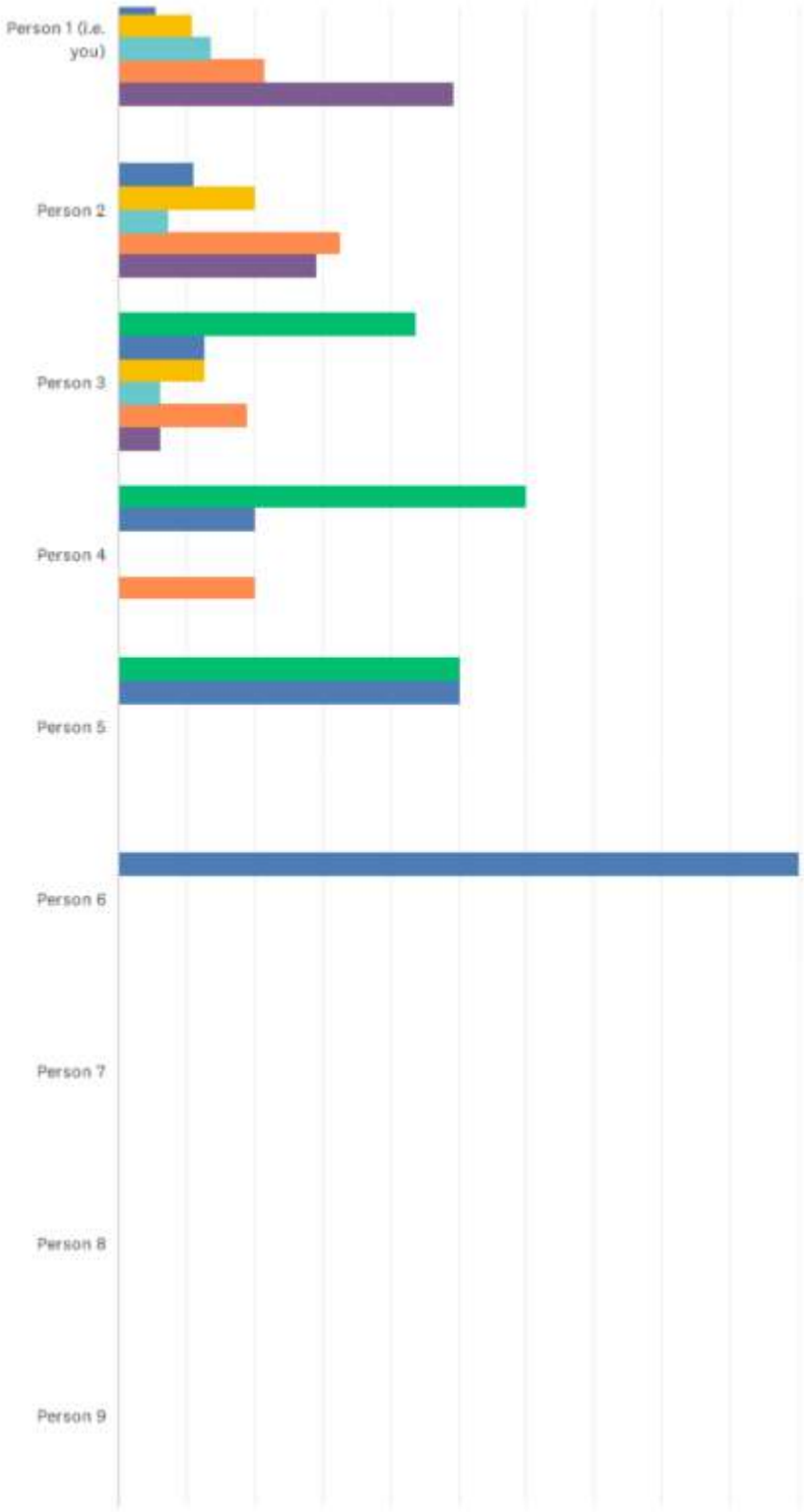
Q5 Please provide the following information about each member of your household

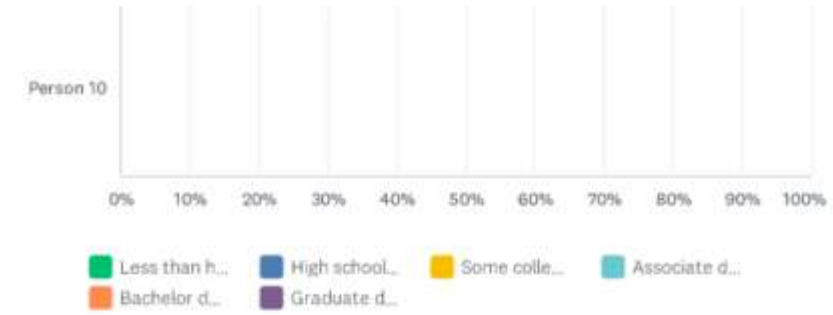
Answered: 108 Skipped: 11

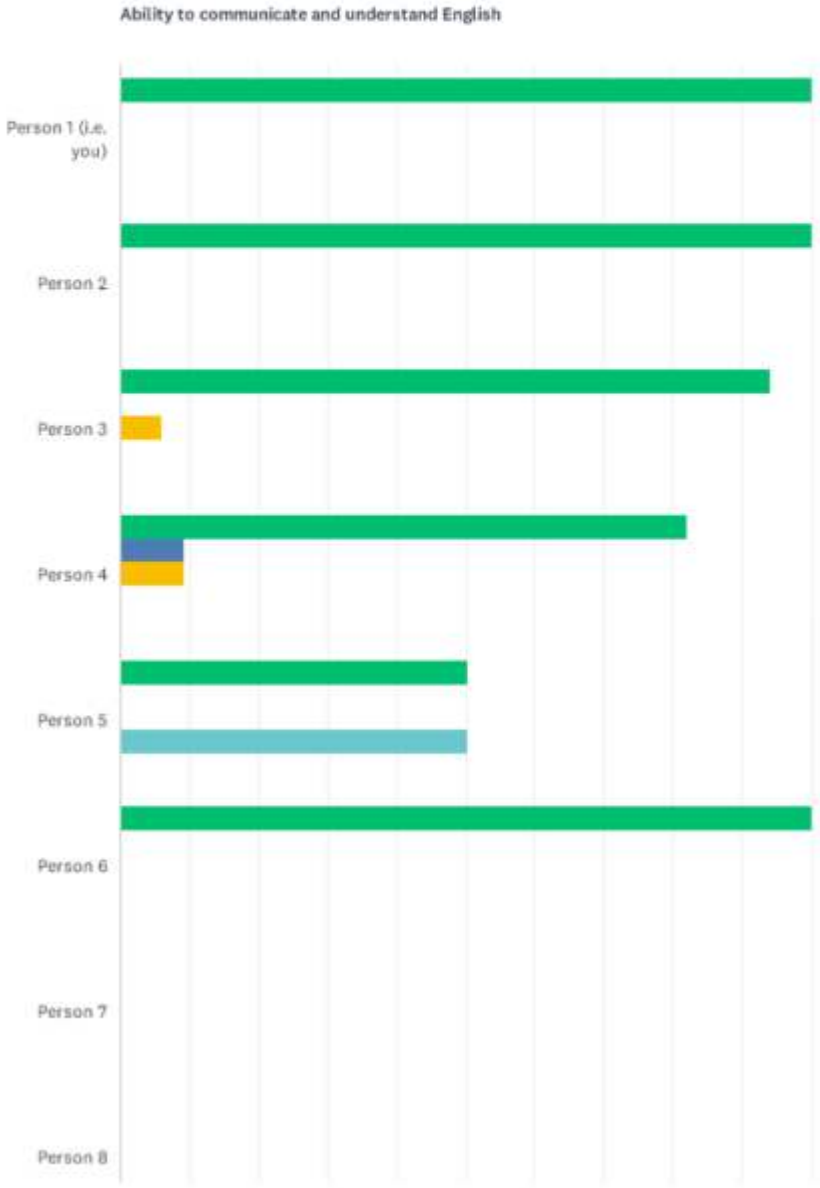


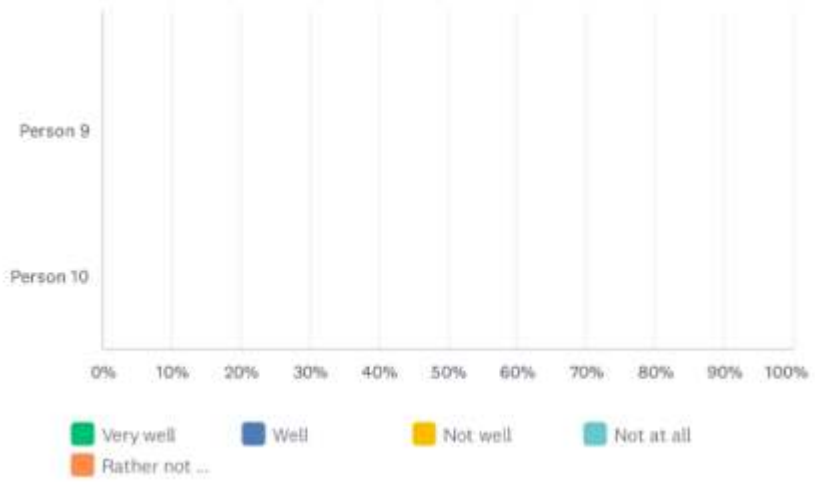

Person 6
Person 7
Person 8
Person 9
Person 10
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Less than 5...
6-17 years
18-20 years
21-29 years
30-39 years
40-49 years
50-59 years
60-65 years
Over 65 ye...


Gender
Person 1 (i.e. you)
Person 2
Person 3
Person 4
Person 5
Person 6
Person 7
Person 8
Person 9
Person 10
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Male
Female
Other
Rather not ...
Highest level of school completed


Person 1 (i.e. you)
Person 2
Person 3
Person 4
Person 5
Person 6
Person 7
Person 8
Person 9


Person 10
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Less than h...
High school...
Some colle...
Associate d...
Bachelor d...
Graduate d...


Ability to communicate and understand English
Person 1 (i.e. you)
Person 2
Person 3
Person 4
Person 5
Person 6
Person 7
Person 8



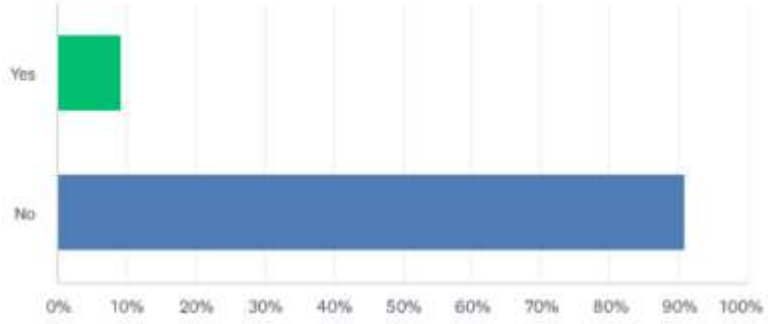
Q6 What is your household's primary language?

Answered: 108 Skipped: 11

All respondents indicated English as their household's primary language. Two respondents also indicated Spanish as a household primary language.

Q7 Does anyone in your household have a disability or impairment that would make it hard to leave during a wildfire?

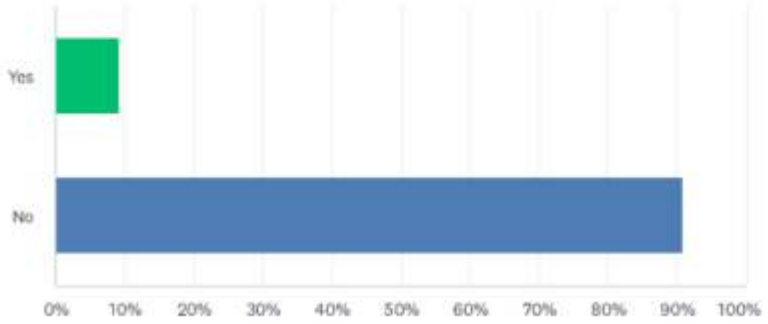
Answered: 110 Skipped: 9



When respondents who answered "yes" were asked what kind of help would be needed, most indicated they would need physical assistance (i.e., walkers, slow movement). Two respondents indicated they would have mental difficulties, and one indicated assistance would be needed with grabbing essentials quickly.

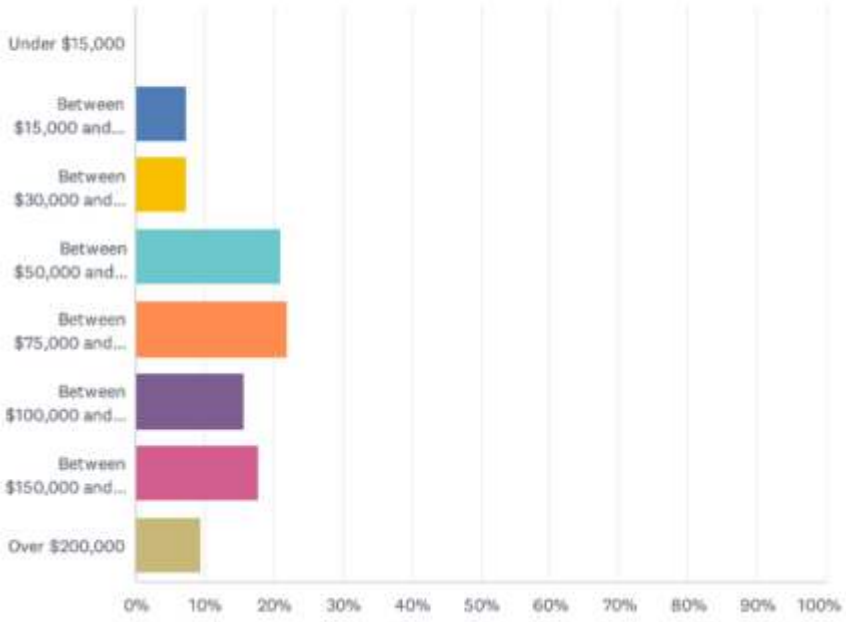
Q8 Are any of the members of your household using medical equipment dependent on electricity?

Answered: 109 Skipped: 10



Q9 What is your approximate annual household income

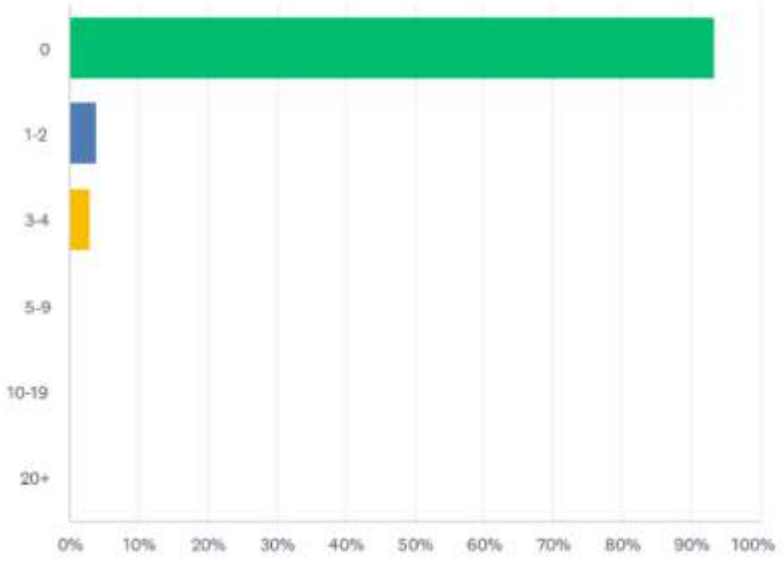
Answered: 96 Skipped: 23



ANSWER CHOICES	RESPONSES	
Under $15,000	0.00%	0
Between $15,000 and $29,999	7.29%	7
Between $30,000 and $49,999	7.29%	7
Between $50,000 and $74,999	20.83%	20
Between $75,000 and $99,999	21.88%	21
Between $100,000 and $149,999	15.63%	15
Between $150,000 and $199,999	17.71%	17
Over $200,000	9.38%	9
TOTAL		96

Q10 How many large animals (e.g. horses, cattle, goats) do you have?

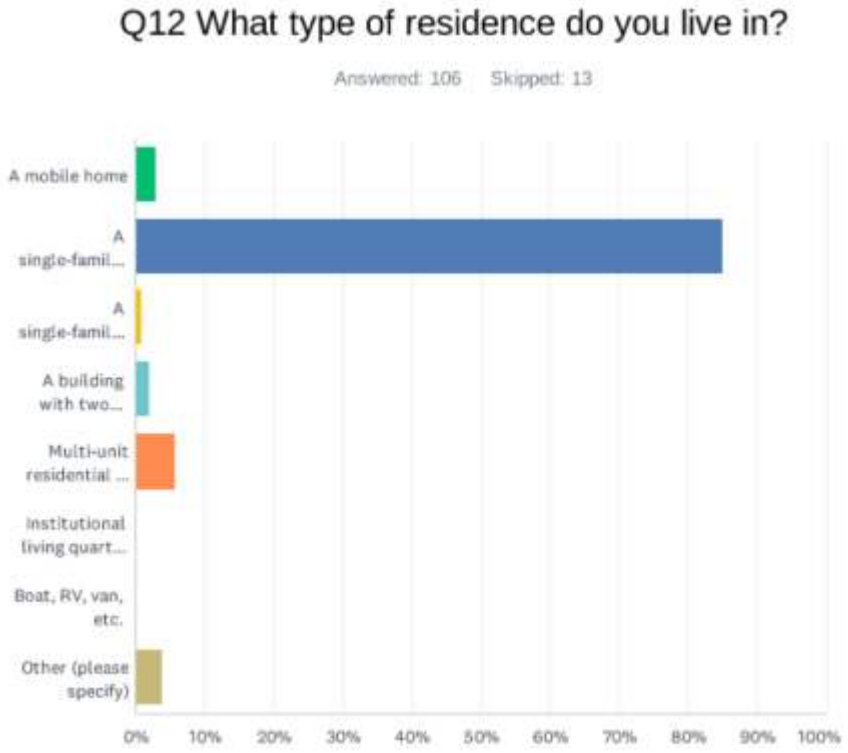
Answered: 107 Skipped: 12



Q11 If you do have large animals, what do you plan to do with them if you evacuate?

Answered: 6 Skipped: 113

Respondents indicated that they would take the animals with them in a trailer, or leave at a boarding facility.

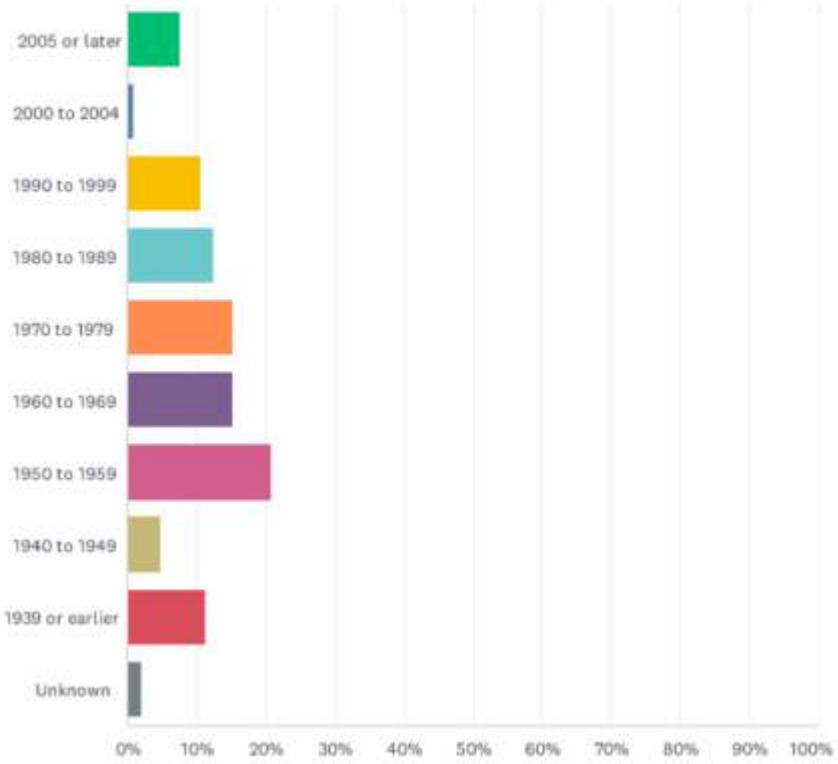


ANSWER CHOICES	RESPONSES	
A mobile home	2.83%	3
A single-family house detached from any other structures	84.91%	90
A single-family house attached to one or more houses/structures (e.g., townhouse)	0.94%	1
A building with two apartments (e.g., duplex)	1.89%	2
Multi-unit residential (3 or more units)	5.66%	6
Institutional living quarters (e.g., hospital, assisted living)	0.00%	0
Boat, RV, van, etc.	0.00%	0
Other (please specify)	3.77%	4
TOTAL		106

The “Other” responses indicated guest house/ASU/cabins separate from a main house, and a condominium community.

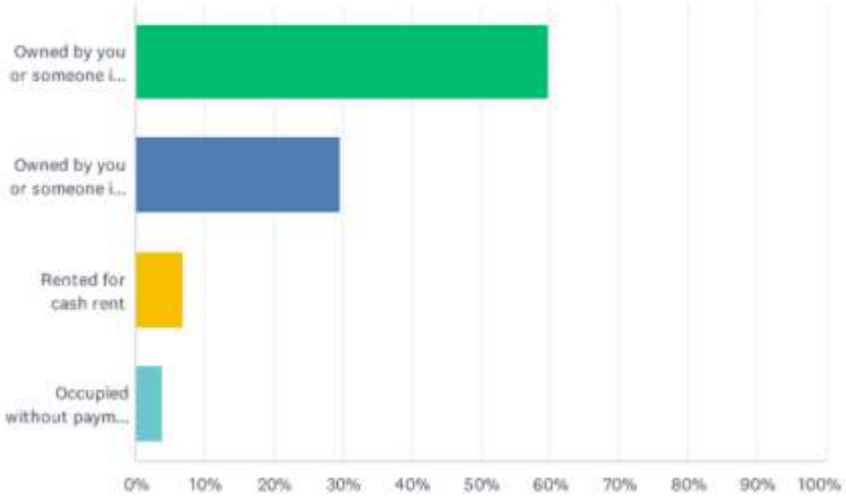
Q13 Approximately when was your residence first built?

Answered: 106 Skipped: 13



Q14 Do you rent or own your home?

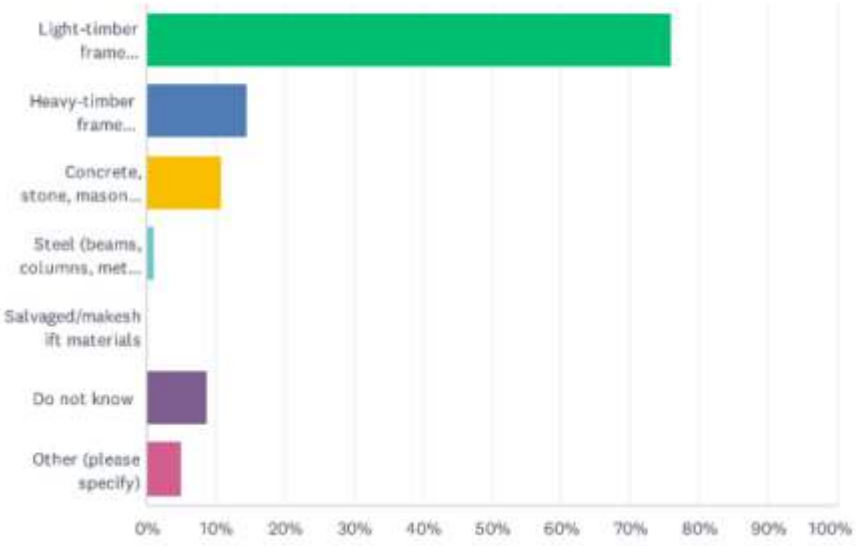
Answered: 102 Skipped: 17



ANSWER CHOICES	RESPONSES	
Owned by you or someone in your household with a mortgage or loan	59.80%	61
Owned by you or someone in your household free and clear (without a mortgage or loan)	29.41%	30
Rented for cash rent	6.86%	7
Occupied without payment or cash rent	3.92%	4
TOTAL		102

Q15 What is the main structural material of your residence? (choose all that apply)

Answered: 104 Skipped: 15

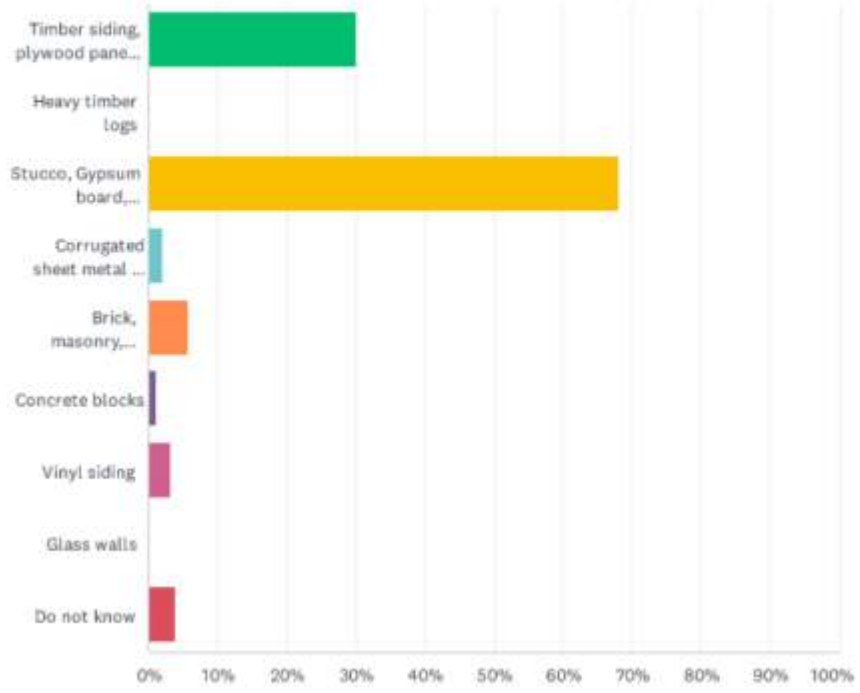


ANSWER CHOICES	RESPONSES	
Light-timber frame construction (e.g., 2x4s, 4x6s, wood stud walls, etc.)	75.96%	79
Heavy-timber frame construction (e.g., large columns/posts and beams)	14.42%	15
Concrete, stone, masonry, brick	10.58%	11
Steel (beams, columns, metal stud walls)	0.96%	1
Salvaged/makeshift materials	0.00%	0
Do not know	8.65%	9
Other (please specify)	4.81%	5
Total Respondents: 104		

The “Other” responses indicated timber frame, SIPS panels (structurally insulated panels), and stucco.

Q16 What are the surfaces of the exterior walls of your residence primarily constructed of? (choose all that apply)

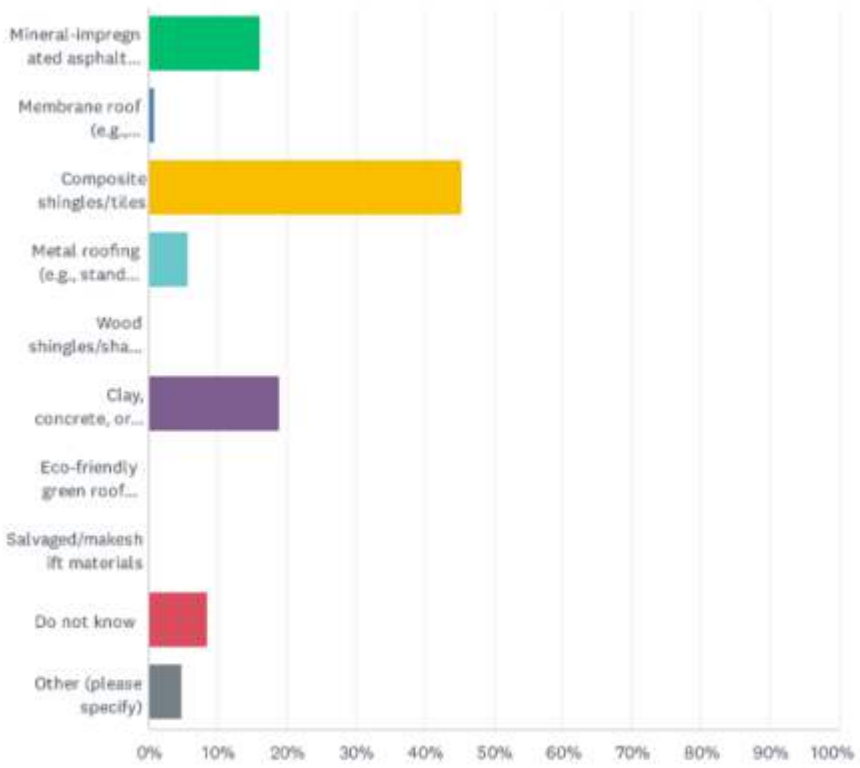
Answered: 103 Skipped: 16



ANSWER CHOICES	RESPONSES	
Timber siding, plywood panels, clapboard siding, engineered wood siding	30.10%	31
Heavy timber logs	0.00%	0
Stucco, Gypsum board, Fiber-cement siding	67.96%	70
Corrugated sheet metal or other metal siding	1.94%	2
Brick, masonry, concrete, stone veneer	5.83%	6
Concrete blocks	0.97%	1
Vinyl siding	2.91%	3
Glass walls	0.00%	0
Do not know	3.88%	4
Total Respondents: 103		

Q17 What type of construction materials is your roof covering primarily made of?

Answered: 106 Skipped: 13

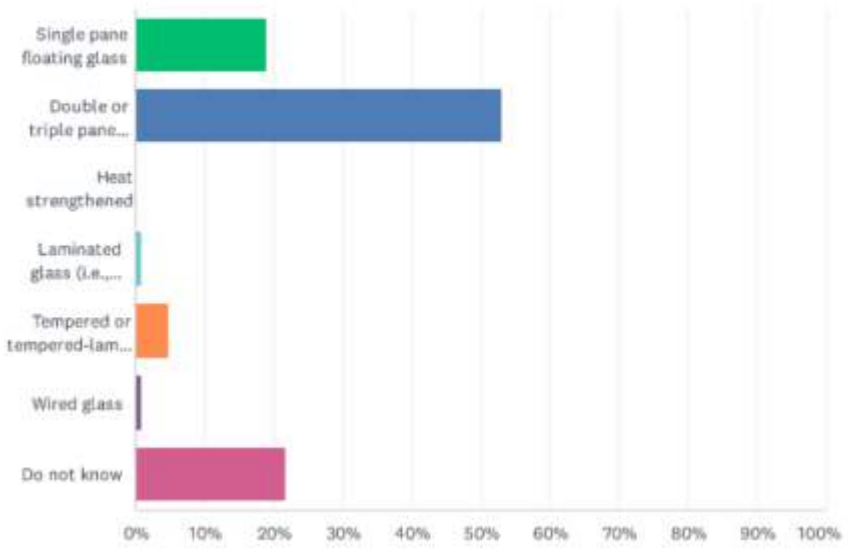


ANSWER CHOICES	RESPONSES	
Mineral-impregnated asphalt (rolled or felt)	16.04%	17
Membrane roof (e.g., neoprene, EPDM or "rubber roofing", PVC, chlorinate polyethylene sheets, polymer-modified bitumens)	0.94%	1
Composite shingles/tiles	45.28%	48
Metal roofing (e.g., standing seam, metal shingles/shakes, corrugated sheet metal)	5.66%	6
Wood shingles/shakes or other light timber	0.00%	0
Clay, concrete, or slate tile	18.87%	20
Eco-friendly green roof (i.e., grass)	0.00%	0
Salvaged/makeshift materials	0.00%	0
Do not know	8.49%	9
Other (please specify)	4.72%	5
TOTAL		106

The "Other" responses indicated Spanish clay tile, Tesla SolarGlass roofing, asphalt, membrane and metal, urethane sprayed on material/elastomeric coating plus 2 inches of Styrofoam, and a general "fire resistant" answer.

Q18 What type of glazing do you have?

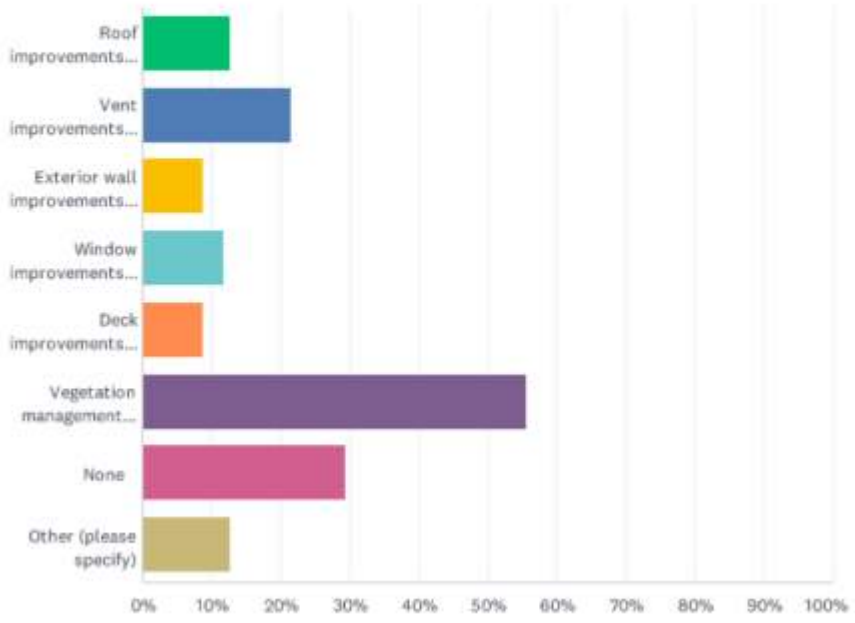
Answered: 106 Skipped: 13



ANSWER CHOICES	RESPONSES	
Single pane floating glass	18.87%	20
Double or triple pane floating glass	52.83%	56
Heat strengthened	0.00%	0
Laminated glass (i.e., "safety glass")	0.94%	1
Tempered or tempered-laminated glazing	4.72%	5
Wired glass	0.94%	1
Do not know	21.70%	23
TOTAL		106

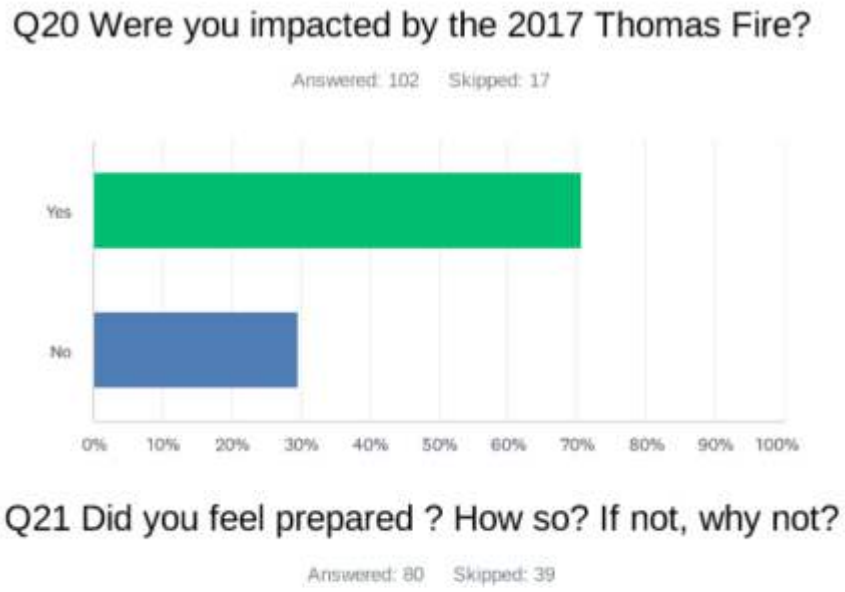
Q19 Have you made any upgrades or improvements to your residence to increase its resilience to fire? (Check all that apply)

Answered: 103 Skipped: 16



ANSWER CHOICES	RESPONSES	
Roof improvements (e.g., change to non-combustible or ignition resistant materials, seal any voids/openings)	12.62%	13
Vent improvements (e.g., install ember resistant vents or 1/8" metal mesh)	21.36%	22
Exterior wall improvements (e.g., replace combustible wall siding with non-combustible or ignition resistant siding, seal gaps around windows/doors)	8.74%	9
Window improvements (e.g., install tempered or laminated glass)	11.65%	12
Deck improvements (e.g., ignition resistant horizontal surface)	8.74%	9
Vegetation management (e.g., remove dead debris from roof, gutters, above/below decking, cover or relocate wood piles away from home, near-home landscaping, remove mulching within 5ft of home)	55.34%	57
None	29.13%	30
Other (please specify)	12.62%	13
Total Respondents: 103		

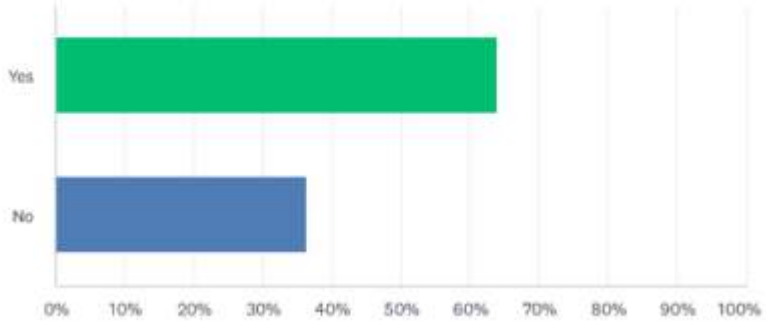
The “Other” responses indicated all of the above answers, vegetation management, removal of exterior wood and combustibles, annual fire department requirements, boxed eaves, hardscaping around house, and unknown.



Answers were relatively evenly split between yes and no (roughly 40% each). A number of respondents also indicated either indifference (yes and no, somewhat, etc.) or indicated that they did not live in Ojai at the time. Among the “yes” answers, several indicaed that they listened to emergency information and had a go-bag prepared. Among the “no” answers, several indicated that they did not have a go-bag prepared, emergency communications were confusing, and that their homes were not hardened/protected for a wildfire.

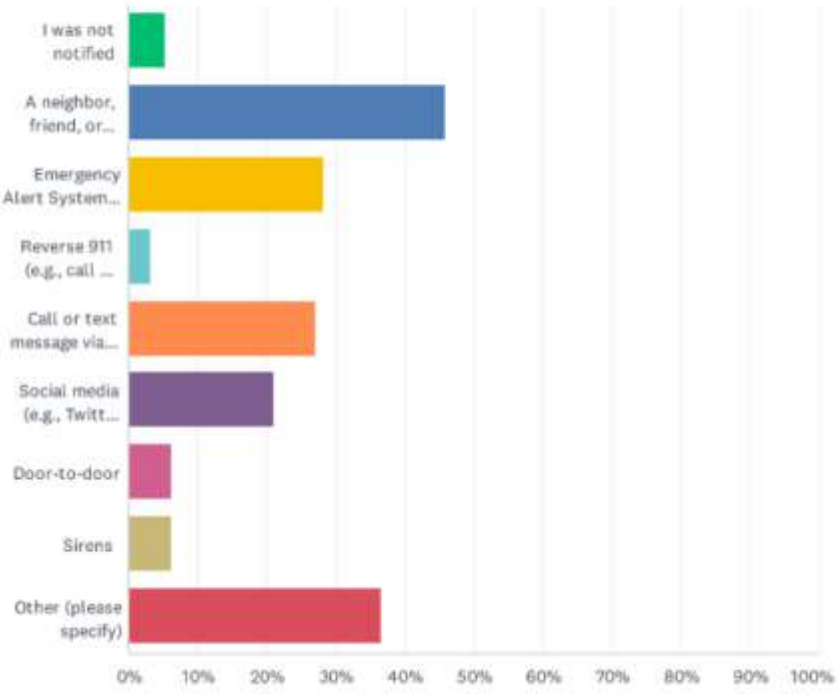
Q22 During the Thomas Fire in 2017, were you asked to evacuate?

Answered: 94 Skipped: 25



Q23 How did you learn that there was a wildfire emergency? (Check all that apply)

Answered: 96 Skipped: 23

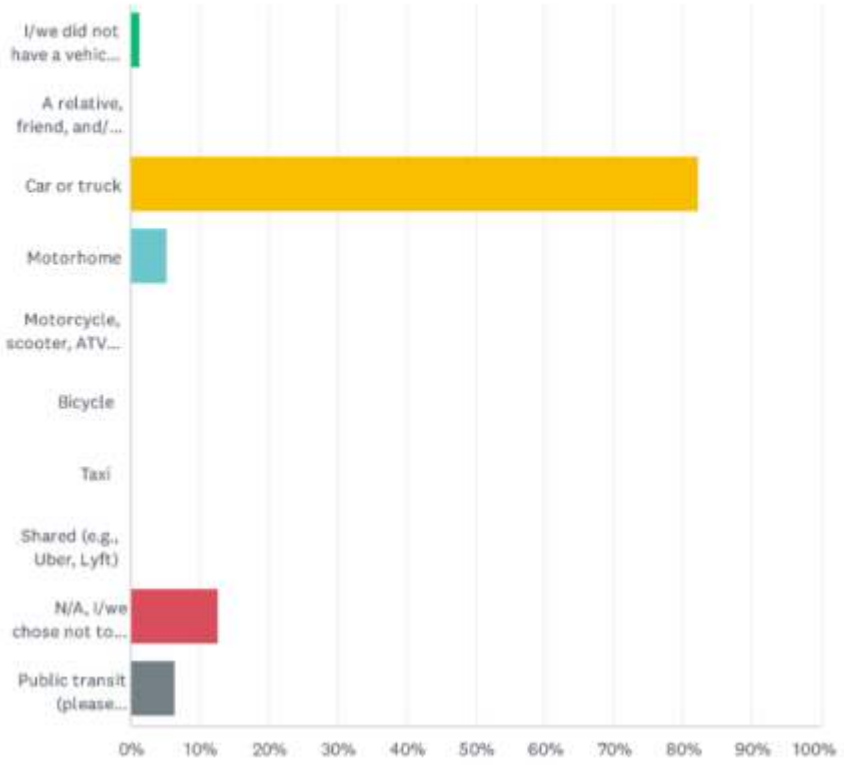


ANSWER CHOICES	RESPONSES	
I was not notified	5.21%	5
A neighbor, friend, or family member notified me	45.83%	44
Emergency Alert System (EAS) (e.g., TV, radio)	28.13%	27
Reverse 911 (e.g., call on landline)	3.13%	3
Call or text message via mobile phone or VoIP	27.08%	26
Social media (e.g., Twitter, Facebook)	20.83%	20
Door-to-door	6.25%	6
Sirens	6.25%	6
Other (please specify)	36.46%	35
Total Respondents: 96		

The “Other” responses indicated that they visually saw and smelled the fire, or that they did not live in Ojai at the time.

Q24 If you were told to leave your house or business, how did you evacuate? (Check all that apply)

Answered: 79 Skipped: 40

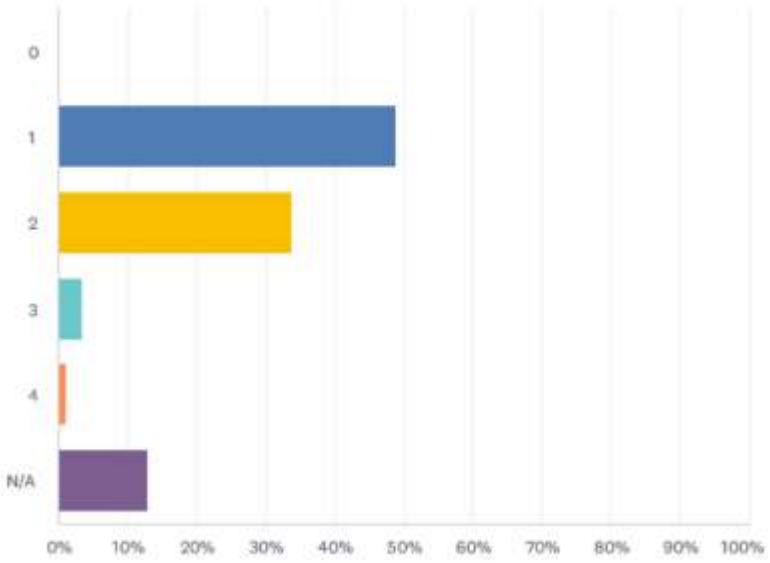


ANSWER CHOICES	RESPONSES	
I/we did not have a vehicle and therefore could not evacuate	1.27%	1
A relative, friend, and/or neighbor drove me/us	0.00%	0
Car or truck	82.28%	65
Motorhome	5.06%	4
Motorcycle, scooter, ATV, etc.	0.00%	0
Bicycle	0.00%	0
Taxi	0.00%	0
Shared (e.g., Uber, Lyft)	0.00%	0
N/A, I/we chose not to evacuate	12.66%	10
Public transit (please specify):	6.33%	5
Total Respondents: 79		

Under the public transit (please specify) answer, no respondents properly specified. All answers indicated that respondents either drove to L.A., did no evacuate to do transportation issues, or evacuated even if they were not told to do so.

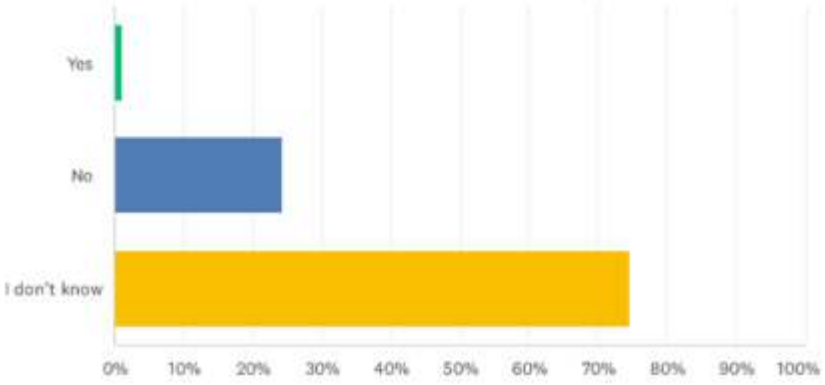
Q25 If you drove, how many vehicles did your household take?

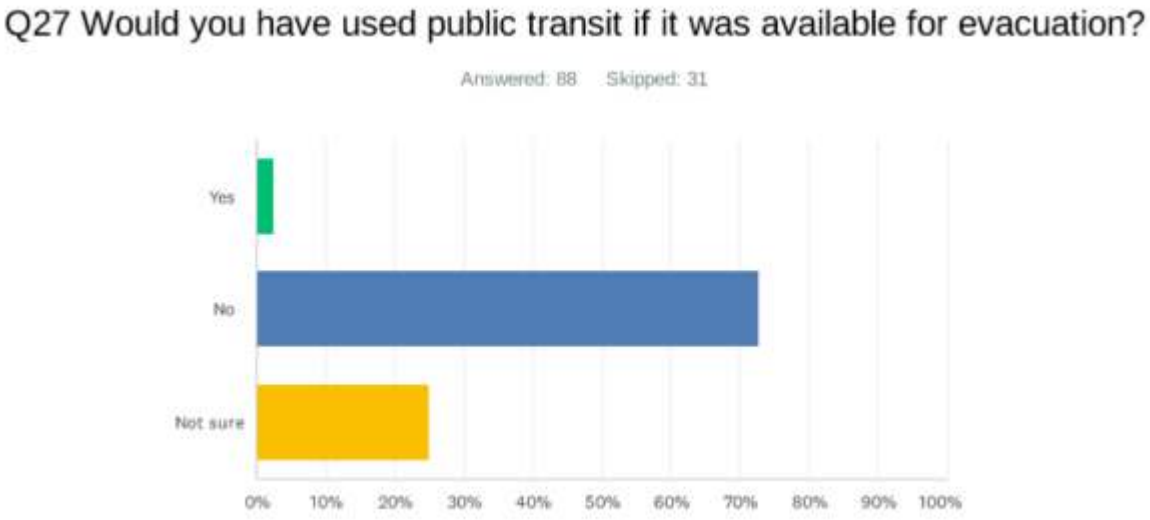
Answered: 86 Skipped: 33



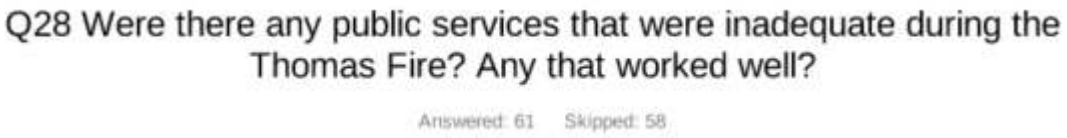
Q26 Was public transit available for evacuation?

Answered: 87 Skipped: 32





When respondents that indicated “No” were asked why, most said that they have their own cars that they wanted to save, and use to take their personal items and pets. A general lack of trust in the public transportation was also expressed by respondents.



Public services generally indicated as inadequate:

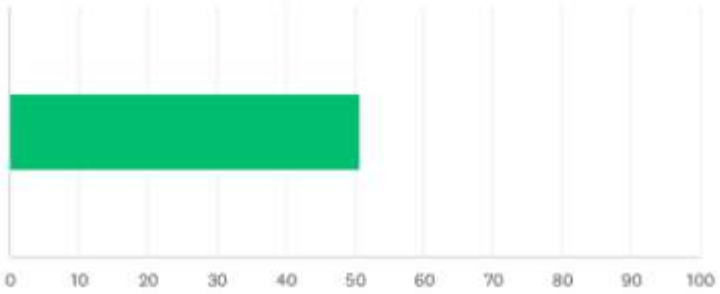
- Public information/notification
- **Road closures/information about road closures**
- City leadership

There were no significant trends where respondents indicated public services that worked well.

Opinions on firefighter response were very divided. Some indicated they did the best they could with the scenario, and others were frustrated, citing inadequate response.

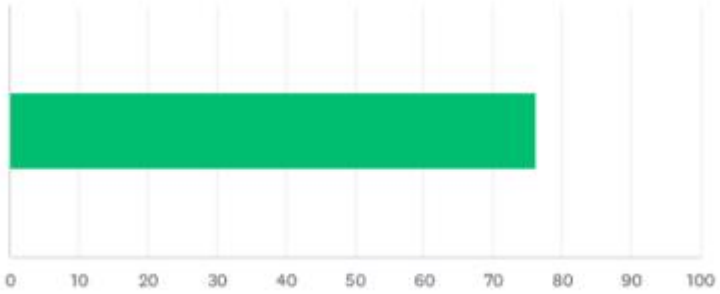
Q29 Prior to the 2017 Thomas Fire, how concerned were you or your household about the threat of wildfire in the Ojai Valley?

Answered: 95 Skipped: 24



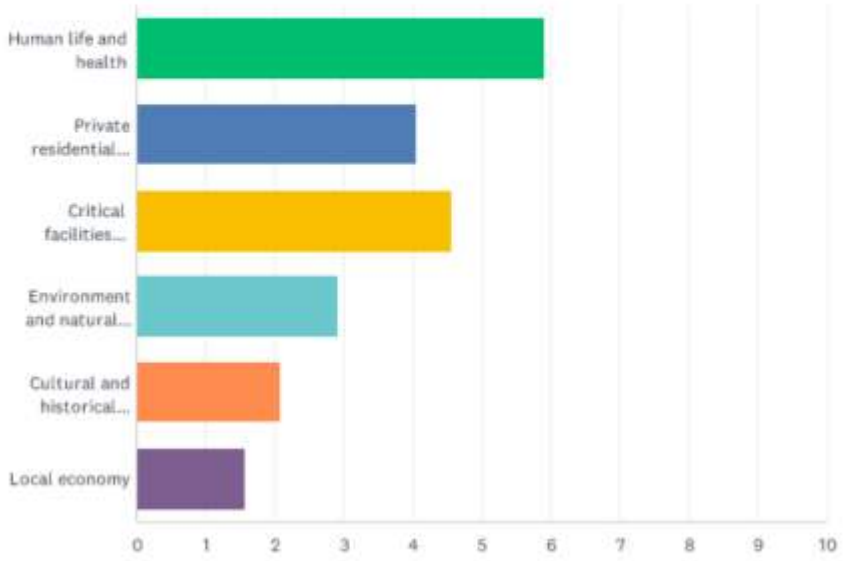
Q30 After the 2017 Thomas Fire, how concerned are you or your household about the threat of wildfire in the Ojai Valley?

Answered: 97 Skipped: 22



Q31 Please rank each of the following community assets in order of importance for protecting from wildfire threats with #1 being the most important and #6 being the least important

Answered: 101 Skipped: 18



	1	2	3	4	5	6	TOTAL	SCORE
Human life and health	92.08% 93	6.93% 7	0.00% 0	0.99% 1	0.00% 0	0.00% 0	101	5.90
Private residential property	3.00% 3	30.00% 30	48.00% 48	9.00% 9	8.00% 8	2.00% 2	100	4.05
Critical facilities (e.g., roads, hospitals, police stations, evacuation centers, firefighting stations)	3.00% 3	55.00% 55	38.00% 38	3.00% 3	1.00% 1	0.00% 0	100	4.56
Environment and natural resources	1.98% 2	6.93% 7	7.92% 8	54.46% 55	19.80% 20	8.91% 9	101	2.90
Cultural and historical resources	0.00% 0	1.98% 2	4.95% 5	16.83% 17	50.50% 51	25.74% 26	101	2.07
Local economy	0.00% 0	0.00% 0	1.98% 2	14.85% 15	20.79% 21	62.38% 63	101	1.56

Q32 What are your main concerns regarding wildland fire risks for your home and community?

Answered: 87 Skipped: 32

Main themes that arose among these answers:

- **Concerns about evacuation, road closures, and emergency communications**
    - Loss of life and homes

- Vegetation management among both neighbors and in the city & its surrounding areas
- Community preparation

Q33 Have your concerns about these wildfire risks led you to take precautions, if so what are they?

Answered: 79 Skipped: 40

Main themes that arose among these answers:

- Vegetation management on property
- General hardening of home
- Evacuation preparation

Q34 Do you have any suggestions to improve public education and awareness?

Answered: 66 Skipped: 53

Main themes that arose among these answers:

- Increasing general outreach (farmer's markets, social media, videos, news column, radio, educational training and sessions)
- Make online resources easier to access & compiled in a single location
- Education in public schools
- More involvement from the City

Q35 Please share any other comments you have below:

Answered: 46 Skipped: 73

Main themes that arose among these answers:

- Many respondents indicated they were grateful for the survey and the opportunity to provide input
- Several respondents referenced programs in other jurisdictions that they believed to work well
- More general concern about emergency communications and road closures