

CITY OF BERKELEY COMMUNITY WILDFIRE PROTECTION PLAN

Prepared for the City of Berkeley

by

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Preface: What is a Community Wildfire Protection Plan (CWPP)?

As established by the 2003 Healthy Forest Restoration Act, a Community Wildfire Protection Plan is a strategic plan typically developed by a local fire department, federal and state land managers, local governments, and communities. CWPPs organize a community's efforts to protect itself from wildfire and empower citizens to move in a cohesive, common direction. This CWPP is a roadmap for fire hazard mitigation and preparedness at both the City of Berkeley (hereby known as the City) and neighborhood level and will offer ways to mitigate the risks posed by wildfires, including goals for prevention, safety and evacuation, resident mitigation, improving wildfire response, large-scale landscape treatments (fuel management), and more. Input from the public and other stakeholders will help inform priorities.¹

The intent of the City of Berkeley CWPP, which was developed collaboratively by citizens and state and local management agencies in consultation with Federal agencies, are to:

- Align with the County, CAL FIRE, and Federal cohesive pre-fire strategies, which include educating homeowners and building an understanding of wildland fire, ensuring defensible space and structure ignition resistance, safeguarding communities through fuels treatment, and protecting evacuation corridors.
- Identify and prioritize areas for hazardous fuel-reduction treatment.
- Recommend the types and methods of treatment that will reduce damages from wildfire.
- Recommend measures to reduce the ignitability of structures throughout the City.

Additional desired results and outcomes include:

- Shared vision of current situation
- Common, shared, and parallel paths for improvement
- Compatible planning documents
- Open statement of priorities
- Increased potential for funding/efficiency
- Great collaboration with partners/stakeholders

Additionally, this document is intended to serve as a companion to the City of Berkeley CWPP Hub Site, which holds a rich range of information (via tabs) contained in the Community Base Map, as well as the various Story Maps. New versions of CWPP Hubs are available through ESRI. Maps on the Hub Site depict Integrated Fire Hazard, Fire Hazard Severity Zones, Fuel Reduction and/or Wildfire Mitigation Projects, and Evacuation Zones and Routes, and also go into greater detail regarding topics such as the existing vegetation and fuel models across the City more effectively than equivalent sections of this document. Hence, while this document

¹ Note: The CWPP is not to be construed as indicative of project "activity" as defined under the "Community Guide to the California Environmental Quality Act, Chapter Three, Projects Subject to CEQA." Any actual project activities undertaken that meet this definition of project activity and are undertaken by the CWPP participants or agencies listed shall meet with local, state, and federal environmental compliance requirements.

covers similar ground, the enhanced levels of detail and searchable tools in the Hub Site make it an irreplaceable resource for the City of Berkeley. Use the links throughout this document to be directed to the Hub Site (<https://cwpp-berkeley.hub.arcgis.com>), the Community Base Map, the Wildfire Hazard Map, and other relevant resources.

This CWPP will be updated as the products on the Hub Site are revised. An interval of 12-18 months between updates is anticipated.

Executive Summary

In 2022, the City of Berkeley embarked on the development of a city-wide Community Wildfire Protection Plan (CWPP). A Core Team comprised of interested parties was assembled. Members of the team include City staff from Berkeley Fire Department, Parks and Waterfront, Planning, Public Works, and two members of the Disaster and Fire Commission (DFSC). Core Team members were tasked with attending DFSC meetings, sharing expertise and local knowledge with other stakeholders, proposing projects, participating in prioritization, and reviewing plans and offering comments on recommendations and implementation actions. Signators for approval of the Berkeley CWPP will include the Berkeley Fire Chief, the CAL FIRE Santa Clara Unit Chief, and the Berkeley City Council.

Public engagement is a key component in the creation of a CWPP. The Core Team promoted several ways to enhance public awareness and involvement, including encouraging attendance at DFSC meetings, offering media releases about the CWPP process, publishing information in City of Berkeley newsletters, and offering online public surveys. An online Hub Site for the CWPP was designed, and a dedicated email was created to facilitate public comments. The CWPP and the products on the Hub Site serve as the basis for project planning and implementation, and additionally offer resources to support community awareness and engagement. A central initial effort was the development of a Community Base Map to describe the many physical facets of Berkeley. The [Community Base Map](https://cwpp-berkeley.hub.arcgis.com/apps/a57399d9ddf141dfb100c9f095a4ebc0/explore) can be found at <https://cwpp-berkeley.hub.arcgis.com/apps/a57399d9ddf141dfb100c9f095a4ebc0/explore>.

The organizing model for this project is [Fire Adapted Communities](https://fireadapted.org/), a national model based on fire resilience (<https://fireadapted.org/>). The Fire Adapted Communities model promotes a strategy involving local multi-jurisdictional stakeholders working together to identify risk, mitigate it, and maintain the work over time. Part of the strategy is the creation of an Action Plan to guide prioritization and implementation of projects.

An Action Plan was developed based on the results of the public surveys from the Hub Site, and in tandem with recommendations from the Core Team and expert consultant input. This Action Plan prioritizes projects that fall within the goals of prevention, safety and evacuation, resident mitigation, wildfire response, and large-scale landscape treatments. Some strategies are also covered by existing departments/processes/plans etc., including regulations, policies, and plans; infrastructure and business; recovery; partnership and community engagement; and public health. The following are the goals within the five priority strategies:

Goal 1 Prevention

- Goal 1.1 Expand the Wildland Division workforce (for outreach + vegetation removal crews)
- Goal 1.2 Recruit and retain WUI inspectors to perform risk assessments of individual properties and homes

- Goal 1.3 Develop a comprehensive public education campaign to encourage property protection for fire, including home hardening, defensible space, and vegetation management. Partner with community groups in campaign delivery.

Goal 2 Safety and Evacuation

- Goal 2.1 Evaluate the Berkeley roadway network's ability to support evacuation and response. Identify and implement network improvements to reduce response times and speed evacuation times.
- Goal 2.2 Provide ongoing public education about safe fire evacuation practices. Promote community understanding of fire weather (red flag warnings and extreme fire weather). Encourage preemptive relocation during extreme fire weather to reduce risks to community members.
- Goal 2.3 Use roadway network evacuation/response analysis to inform fire evacuation plans for responders and the community.

Goal 3 Resident Mitigation

- Goal 3.1 Initiate annual inspection cycle to assess defensible space and enforcement compliance (including undeveloped properties + vacant homes)
- Goal 3.2 Develop incentives to create Zone 0 around homes.
- Goal 3.3 Promote home hardening retrofit of existing structures by providing guides, training, consultation, incentives, and inspections

Goal 4 Wildfire Response

- Goal 4.1 Use technology and volunteer / BFD fire patrols to detect fire ignition and enforce closures/ restrictions, no fireworks, no open flame, no smoking, and no portable BBQs.
- Goal 4.2 Update and enhance our regional wildfire response coordination policies and protocols to include training, temporary firefighter safety zones, response conditions, mutual and automatic aid agreements, and update hazard/ risk assessments.

Goal 5 Large-Scale Landscape Treatment

- Goal 5.1 Create incentives for hazardous tree and vegetation management within 100' of homes
- Goal 5.2 [Large Scale Landscape Treatment]
- Remove hazardous trees and vegetation on public property (parks and roadsides) and collaborate with agency partners on adjacent lands

Overview

Berkeley Community Wildfire Protection Plan

Tasks	Timeframe	Outcome/ Results/ Deliverables
<p>Task 1 Convene decision-makers and interested parties.</p> <p>Develop list of decision-makers (minimum = local government, fire agencies and Cal Fire) + potential core CWPP advisory group (for 5 work sessions).</p> <p>Discuss requirements for the development of a Community Base Map based on available information</p> <p>Develop informational materials regarding process and stakeholder involvement. Post on CWPP on-line hub when established (Task 2).</p> <p>Convene core CWP advisory group. Provide follow-up information.</p>	<p style="text-align: center;">May 13, 2022 @1:00 Work Session #1 Core Team</p> <p style="text-align: center;">May 19, 2022 – report activities @ Wildfire community meeting</p>	<p><i>Invitations to participate to potential stakeholders for core CWPP advisory group.</i></p> <p><i>Work session #1 material: Agenda, scope, schedule; communication methods; participation opportunities; requirements of CWPP;</i></p> <p><i>Written summary.</i></p>
<p>Task 2 – Geospatial Hazard and Risk Assessment</p> <p>Review existing databases and analyses.</p> <p>Preliminary Community Base Map based on available information</p> <p>Develop geospatial hazard and risk assessment (available topo, fine-grained vegetative fuels, structure characteristics and density, access, fuel mitigation, power lines, typical traffic).</p> <p>Create wildfire hazard story map: CWPP on-line hub. Organize by watersheds. Summary of associated hazards.</p> <p>Calculate overall wildfire risk (if sufficient data).</p>	<p style="text-align: center;">Core Team mtg Work Session #2 July 27, 2022 @1:00</p> <p style="text-align: center;">Disaster and Fire Safety Commission #1 August 3, 2022 Wildfire hazard story map (and overall risk assessment if sufficient data) *on-line hub for public input</p>	<p><i>Work session #2 material: Agenda, preliminary community base map wildfire hazard summary, risk assessment.</i></p> <p><i>Written summary of geospatial hazard and risk assessment</i></p> <p><i>CWPP on-line hub to share information and facilitate public input.</i></p>
<p>Task 3 – Projects and Priorities</p> <p>Prioritize potential hazard reduction strategies.</p> <p>Preliminary project recommendations, roles, responsibilities, funding needs and timetables.</p> <p>Link to CWPP on-line hub with project mapping tools.</p>	<p style="text-align: center;">Core Team mtg Work Session #3 Sept 21, 2022 @ 1:00</p> <p style="text-align: center;">Disaster and Fire Safety Commission #2: Sept 28, 2022 Strategies & projects</p>	<p><i>Work session #3: Agenda, strategies & projects materials.</i></p> <p><i>Written summary session #3.</i></p> <p><i>CWPP on-line hub update for input on project and priorities</i></p>
<p>Task 4 –Assessment Priorities & Action Plan</p> <p>Determine priority of projects and confirm action plans for implementation of highest priority projects.</p> <p>Link to CWPP on-line hub.</p>	<p style="text-align: center;">Core Team mtg Work Session #4 Nov 30 @ 1:00</p> <p style="text-align: center;">Disaster and Fire Safety Commission #3 Dec 7, 2022 Assessment Priorities & Action Plan</p>	<p><i>Work session #4: Agenda, priorities & action plan.</i></p> <p><i>Written summary session #4</i></p> <p><i>CWPP on-line hub update for input on project and priorities</i></p>
<p>Task 5 – Admin & Public Review Draft Plan</p> <p>Admin Draft Plan.</p> <p>Circulate Draft Plan for Public Review and Comment.</p>	<p style="text-align: center;">Core Team mtg Work Session #5 Jan 25, 2023 @ 1:00 Admin Draft</p>	<p><i>Work session #5: Agenda, Admin Draft Plan</i></p> <p><i>Written summary session #5</i></p> <p><i>CWPP on-line hub update with Public Draft Plan</i></p>
<p>Task 6 – Final Berkeley CWPP Adoption</p> <p>Finalize the Berkeley CWPP. Coordinate with agency partners and required signators.</p> <p>Present for City Council signature.</p>	<p style="text-align: center;"><i>Recommend 60 days after #5</i></p> <p style="text-align: center;"><i>Final Plan for Signatures</i></p>	<p><i>Presentations to signators</i></p> <p><i>Post final CWPP to on-line hub.</i></p>

Figure 1. The process used to develop the CWPP.

Five major categories of projects are identified in this CWPP Action Plan:

1. Prevention
2. Safety and Evacuation
3. Resident Mitigation
4. Wildfire Response
5. Large-scale Landscape Treatment

Other strategies, as identified in the Fire Adapted Communities program, as supported by existing City policies, programs, and plans. These strategies are:

1. Regulations, policies & plans
2. Infrastructure and business
3. Partnerships and community engagement
4. Public Health
5. Recovery

The CWPP describes fire hazard and risk on a city-wide scale, displaying CAL FIRE-derived products as tabs on the Community Base Map along with city-specific analysis of hazard and risk based on new high-resolution fuels maps and fire behavior analysis, plus a multitude of other weighted factors.

Section 1: Existing Conditions

A. Overview

The CWPP addresses the entire City of Berkeley, with particular focus on Wildland Urban Interface (WUI) areas as identified by the Berkeley Fire Code. This includes the areas identified as Fire Zone 2 (Hillside Overlay) and Fire Zone 3 (Panoramic Hill). A map of the WUI area can be found at our Community Base Map.

Because wildfire is not specific to jurisdictional boundaries, the CWPP hazard and risk analyses will include a 1,000-foot area to the east, south and north of the City boundary to evaluate its impact on the City. Actions identified within the CWPP may include collaborative projects with adjacent agencies including the Cities of Albany, El Cerrito, Emeryville, and Oakland, the Community of Kensington, East Bay Regional Park District, East Bay Municipal Utility District, Lawrence Berkeley National Laboratory, and the University of California, Berkeley. However, as a local plan, most actions in the CWPP will be focused on the City of Berkeley WUI owned by private citizens, businesses, public entities, and the City of Berkeley.

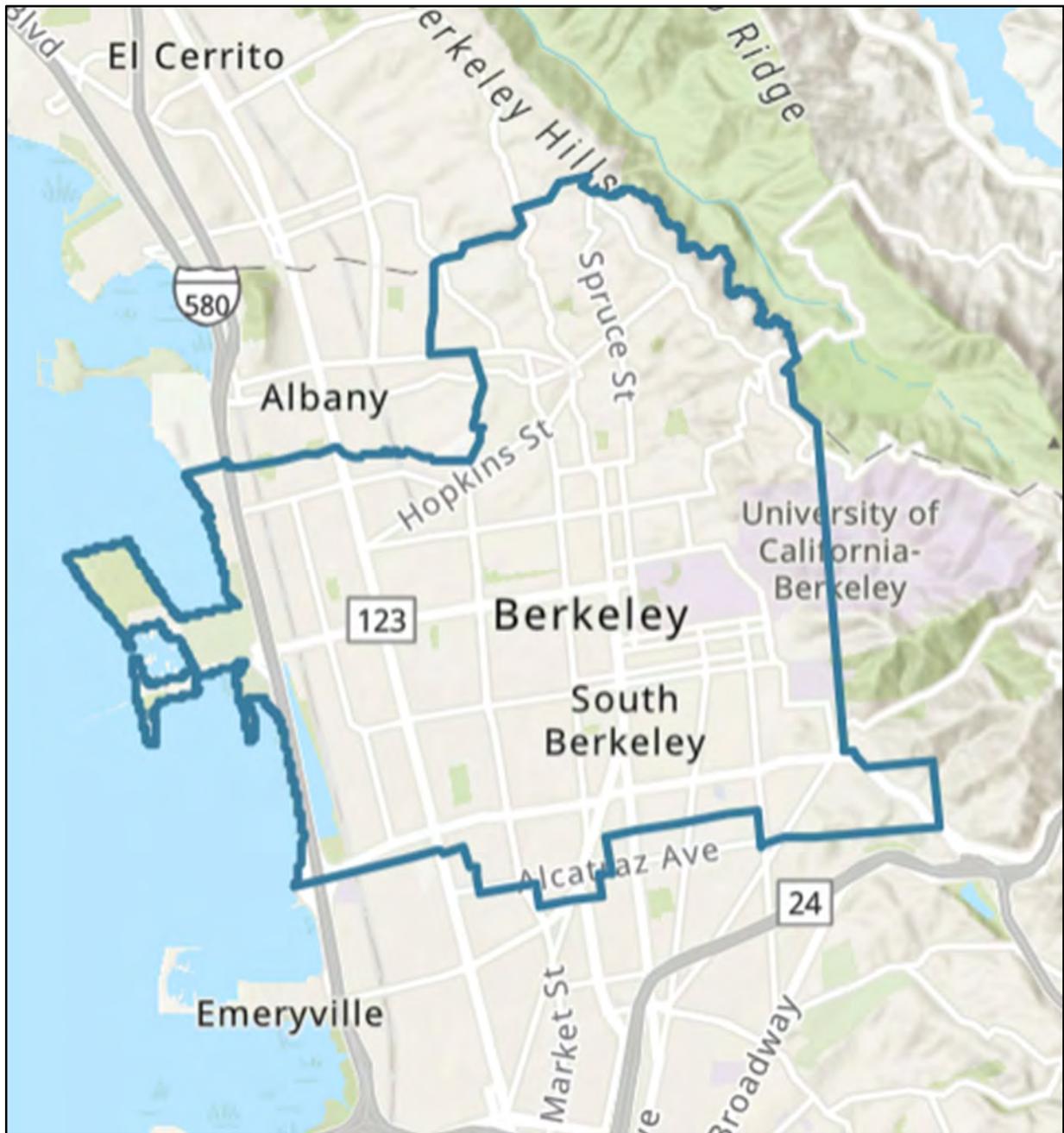


Figure 2. City of Berkeley CWPP boundary (in blue).

B. Existing Natural and Built Conditions

1. Topography and Watersheds

Elevation ranges from sea level to roughly 200 feet above sea level, from the shoreline to Shattuck Ave. Then elevation raises sharply from 200 feet above sea level to over 1300 feet to the eastern boundary of the City.

There are several canyons in Berkeley: Strawberry Canyon, Blackberry Canyon, canyons below La Loma and Berryman Reservoir, and canyons south of Panoramic Hill.

Watershed values are appreciated by the public, including the creeks' role as a wildlife corridor and important reservoir of biodiversity. The creeks contain abundant fuel. There are 10 watersheds within the City limits. The largest watershed is the Derby Creek watershed, which encompasses most of South Berkeley. The Strawberry Creek watershed is almost as big and drains the UC Hill Campus and residential areas immediately north of the UC Berkeley main campus. The Cordinices Creek watershed covers most of the northern half of the Berkeley Hills and spans the neighborhood around Hopkins. The Schoolhouse watershed starts below Shattuck Avenue, while the Marin watershed covers the northern hills of Berkeley around Marin Avenue. Three watersheds share boundaries outside the City to the north, east, and south; the Cerrito Creek, Temescal, and Wildcat Creek watersheds. Two short watersheds start near the San Francisco Bay: Aquatic Park and Gilman.

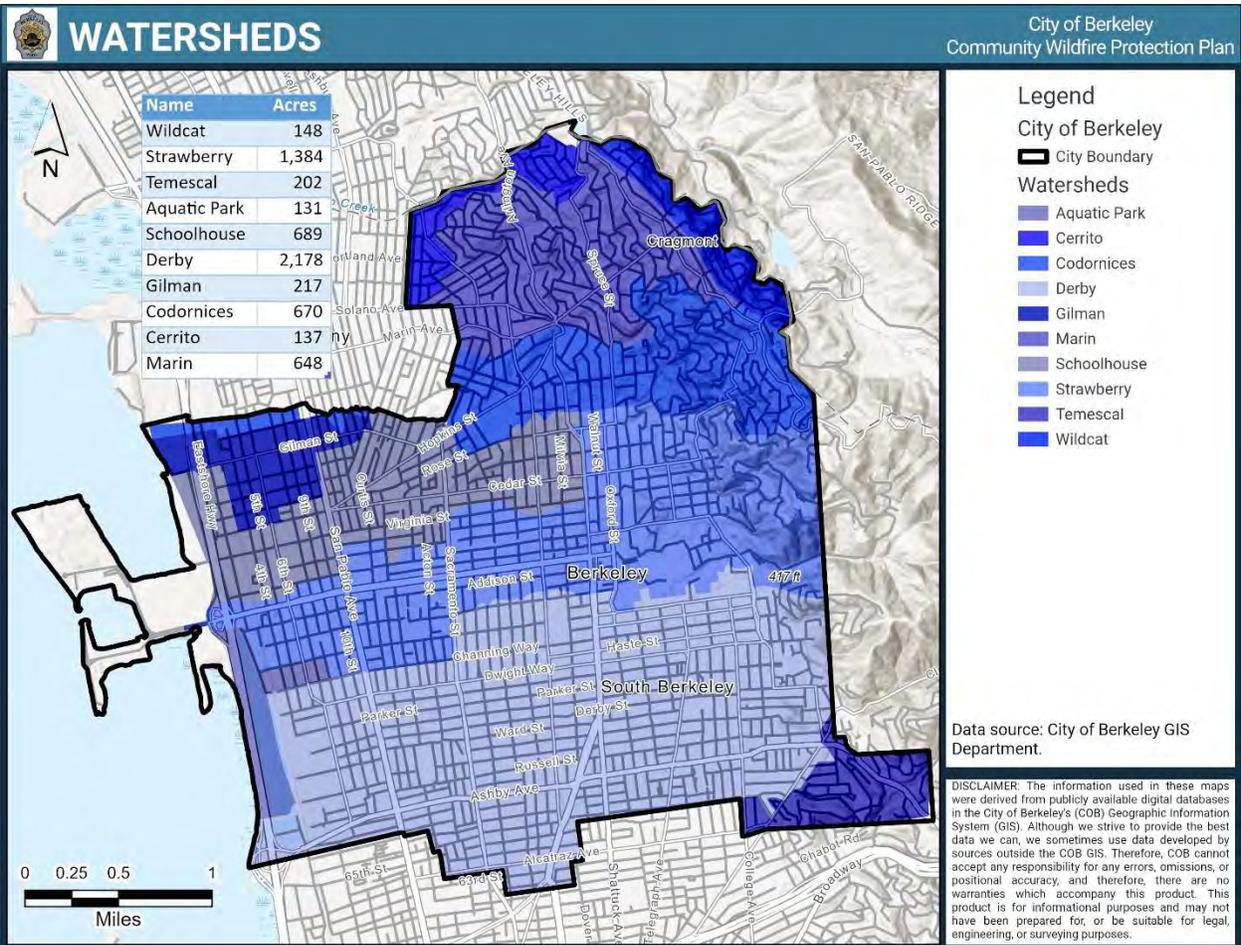


Figure 3. Map of watersheds in the City of Berkeley.

2. Climate and Weather

Berkeley's climate has historically been characterized by warm, dry summers and cool, wet winters. Annual rainfall averages 26.74 inches. Precipitation mainly occurs as storm fronts, with approximately 85 percent of these occurring between November and March. The warm season lasts from June to October, with an average daily high temperature above 71°F. The hottest month of the year in Berkeley is September, with an average high of 75°F and low of 53°F. The cool season lasts from December to February, with an average daily high temperature below 59°F. The coldest month of the year in Berkeley is January, with an average low of 42°F and high of 58°F.

As the climate changes, Alameda County is experiencing longer and drier summer conditions, leading to wildfires of greater frequency and duration. The hotter weather increases lightning incidence, which is the primary cause of wildfires. Increased drought conditions provide greater opportunities for arson, which is another common source of wildfire.

Critical fire weather occurs during warm and dry periods coupled with a north wind or cold front passage, which suppresses the normal diurnal weather variation. Despite efforts to improve neighborhood safety and firefighting capability, uncontrollable fire storms will occur under the extreme, but periodic conditions of "Red Flag" weather days. "Red Flag" warnings are issued by the National Weather Service when weather elements such as low relative humidity and strong winds facilitate ignitions and promote rapid spread of wildfires.

"Red Flag" weather can mean the occurrence of strong, hot, dry offshore winds (technically called "foehn" winds). These winds are known locally as "Diablo Winds" since they come from the north or northeast in the direction of Mount Diablo. "Diablo Winds" carry extremely dry air at high velocity, and they quickly desiccate vegetation and other flammable materials and can push a fire down or up a slope with amazing speed. These can occur at any time of year, but are especially dangerous in the driest months of summer and fall. During these times, fighting a fire becomes far more difficult.

3. Vegetation

While most of the City of Berkeley is dominated by a developed, urban landscape, areas along the eastern boundary and the entire northeast section of the City have more heavily vegetated areas (Figure 4 below). Along the eastern boundary of the City are areas of forest/shrub; scattered forest/shrub areas exist along the southern boundary, with denser areas of forest/shrub along the northern boundary adjacent to Tilden Park. The park is dominated by dense forest/shrub. The entire northeastern part of the City from north of UC Berkeley to Kensington is scattered forest/shrub. This swath includes the Cragmont and Thousand Oaks areas along Grizzly Peak Road, Spruce Street, and Arlington. The UC Berkeley campus also contains pockets of forest/shrub and mixed hardwood. Acres and percent cover of the various vegetation types are shown in Table 1 below.

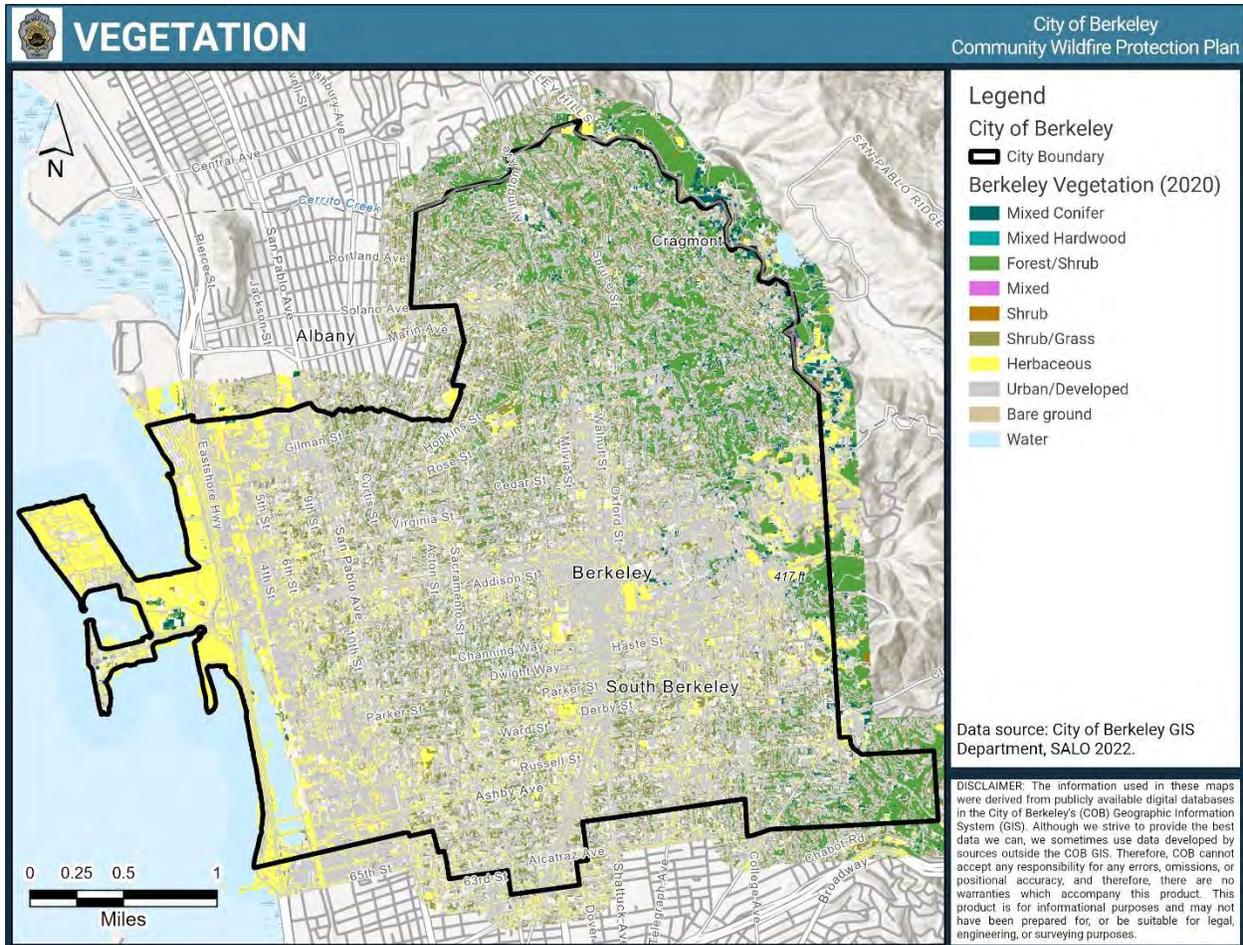


Figure 4. Vegetation map of the City of Berkeley.

Table 1. Vegetation acres by vegetation categories within the City of Berkeley.

Veg Type	Acres	Percent
Urban/Developed	3,245.96	58%
Water	75.39	1%
Herbaceous	893.22	16%
Shrub/Grass	740.62	13%
Shrub	1.16	0.02%
Forest/Shrub	610.40	11%
Mixed Hardwood	2.73	0.05%

Mixed Conifer	61.63	1%
Mixed	0.04	0.001%

4. Public Ownership

While 95% of the City of Berkeley is privately owned, there are some key public lands just outside the City boundaries, most notably Tilden Regional Park to the northeast. The UC Berkeley campus accounts for another 100 acres within the City. The map below highlights the importance of private landowners participating in this CWPP process.²

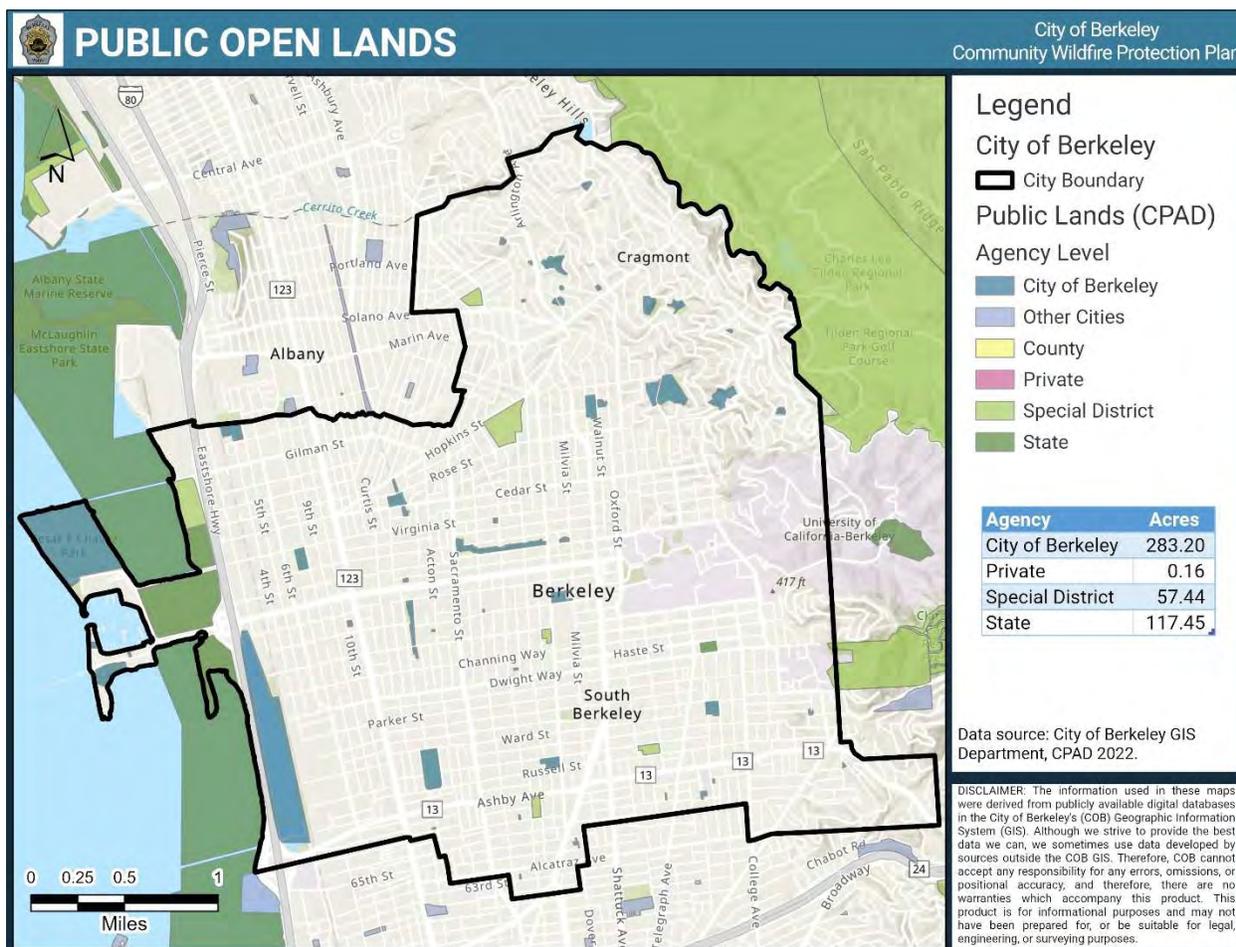


Figure 5. Ownership map of the City of Berkeley.

The City of Berkeley owns 283.2 acres of park lands, the largest of which is the aquatic park (97.6 acres). The 46 other parks comprise the remainder of the land owned by the City of Berkeley. Lands owned by a special district cover 57.44 acres; the Tom Bates Sports Complex

² Data for this map was provided by GreenInfo Network's California Protected Areas program (2020 version). More info about the California Protected Area Database can be found at <https://www.calands.org/>.

and the King School Park are the largest such parks and are both roughly 19 acres in size. A private park covers 0.16 acres. The State also owns two parks: the McLaughlin Eastshore State Park (117.5 acres) and Peoples' Park (2.8 acres).

5. Fire History

Fortunately, wildland fires are rare within the City limits. However, for decades, the 1923 Berkeley Fire held the record for the most structures in California destroyed by wildfire; 584 structures were destroyed. The fire started in Wildcat Canyon and spread west to Hearst Avenue and Shattuck Avenue.

In 1991, the Tunnel Fire burned in Oakland and areas in the southeast portion of Berkeley, claiming over 2,800 structures and over 425 apartment/condominium units. In addition, 25 people ultimately perished due to the fire. While the losses were predominately in Oakland, Berkeley was threatened and impacted by the proximity of the fire. More recent fire occurrence data shows that fire starts have been reported in the same area as well as other areas east of the City where wildland fuels are abundant (though increasingly well managed).

Both the 1923 and 1991 fires burned with strong northeasterly (Diablo) winds.

The map below shows the recorded wildfire history near the City of Berkeley and shows fire occurrence (marked as points).³ This map indicates that more wildfires start outside Berkeley, mostly east of the City boundary. This is likely because of an abundance of wildland fuels.

While not mapped (due to limits in data collection), the Berkeley Disaster and Safety Element of the General Plan states, “[i]n the Berkeley and Oakland Hills there have been 14 wildland fires since 1923, which collectively have burned 9,000 acres and destroyed more than 3,500 structures.”

³ Data on this map provided by CAL FIRE's (latest data as of 7/11/2022) and the US Forest Service (USFS Enterprise Content).

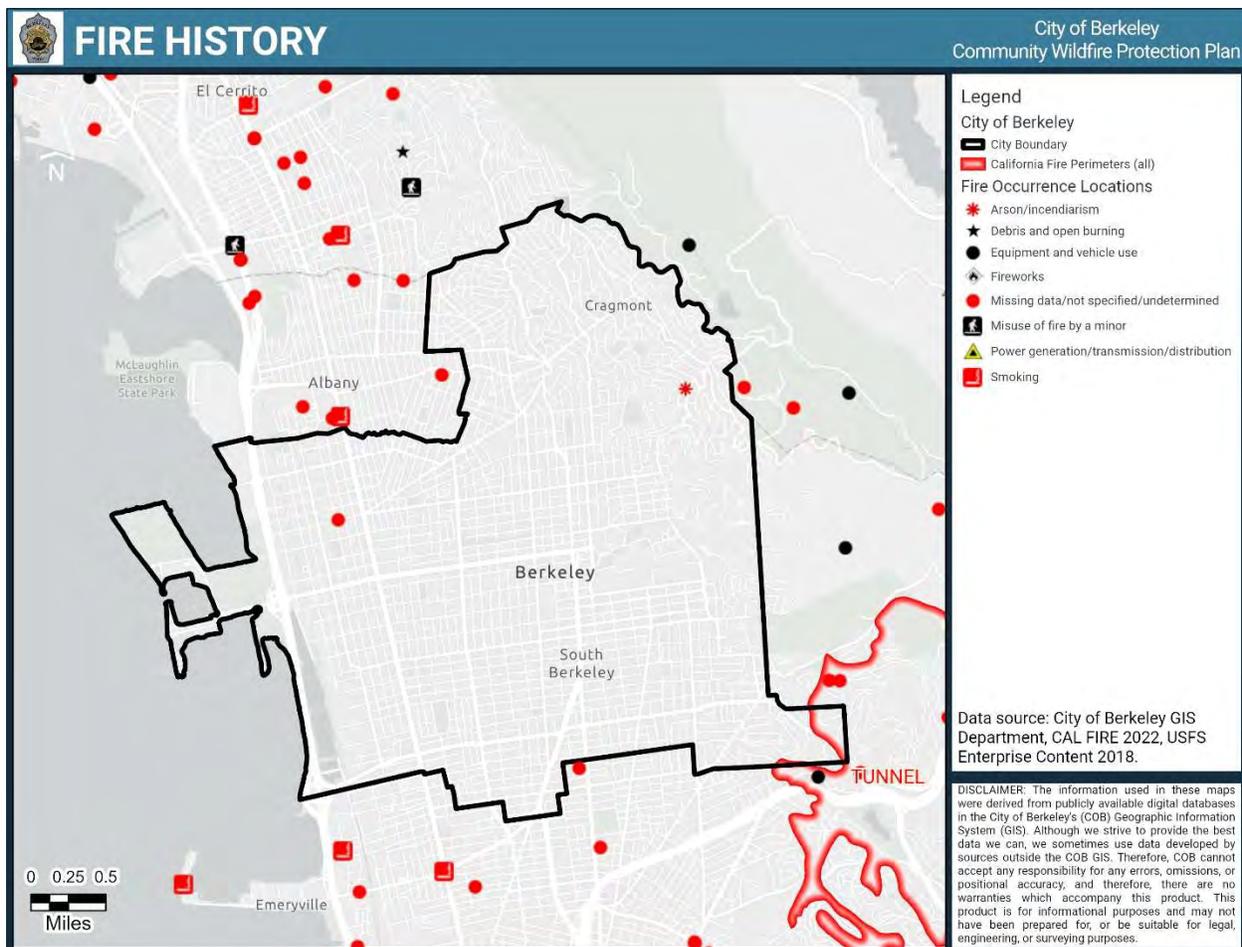


Figure 6. City of Berkeley Fire History.

6. Hazard Assessment

Using remote sensing technology and expertise in fire behavior, the City of Berkeley prepared a series of maps depicting the site and fire hazard of the City. The following maps are visual aids from which stakeholders and community members can assess and make recommendations.

We utilized recently released data products produced by the Pyrologix (a consulting firm) for the US Forest Service and CAL FIRE (<http://pyrologix.com/reports/Contemporary-Wildfire-Hazard-Across-California.pdf>). These data can be downloaded from this website: <https://storymaps.arcgis.com/stories/32de73f1cfb040c79f80c189ccef061>.

In the summer and fall of 2020, Pyrologix used spatial datasets of historical weather and fire occurrence to parameterize and calibrate a comprehensive USFS fire modeling system called FSim to estimate annual burn probability across California. FSim also produced an “event set” that was later used to estimate transmission of fire damage to homes - from the origin locations of simulated wildfires to where their damage occurred. During this time, Pyrologix also applied a comprehensive simulation of potential wildfire behavior characteristics based on FlamMap, another US Forest Service fire modeling system. These simulations of wildfire hazard (likelihood

and intensity) were used to calculate indices such as Suppression Difficulty Index and Wildfire Hazard Potential. Other models included an Ember Production Index and Ember Load Index. The Suppression Difficulty Index indicates where it will be hard to put a fire out based on access. Due to the many roads within the city, the Suppression Difficulty Index is relatively low. Wildfire Hazard Potential (WHP) is an index that quantifies the relative potential for wildfire that may be difficult to control. Ember Production Index represents the relative number of embers produced at a pixel as a function of the fire environment multiplied by the burn probability. Ember Load Index is a relative index of the relative number of embers that land at a given location, including nonburnable pixels. Similar to ember production, ember load is based on surface and canopy fuel characteristics, climate, and topography at the pixel. Ember load incorporates downwind ember travel.

Each layer was not considered equally. The Integrated Fire Hazard was given the highest weight (70%), while the remaining 30% was divided up between the other three layers. Probable Ignition Sources was given a weight of 20%, with 5% each to Suppression Difficulty Index and Other Factors.

For Integrated Fire Hazard, we combined the Pyrologix Hazard Potential model, their Ember Load model, and their Ember Production model along with locally identified Hazardous Vegetation (primarily Eucalyptus groves). Together, these data layers resulted in a layer called Integrated Fire Hazard.

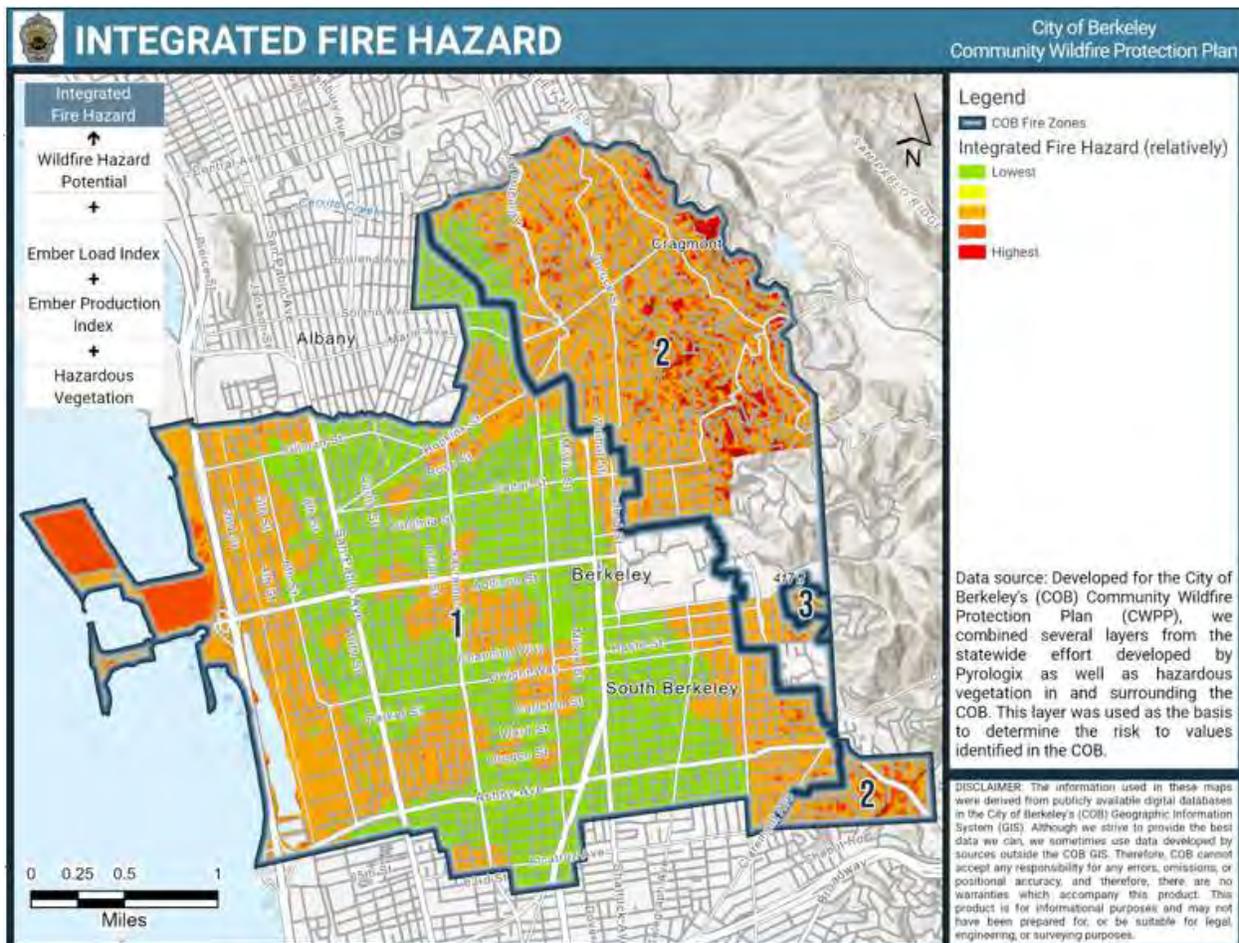


Figure 7. Integrated Fire Hazard for the City of Berkeley derived from Pyrologix data products and locally identified hazardous vegetation.

The Integrated Fire Hazard shows where in the city one would likely encounter vegetation that could support high flame lengths and exhibit crown fire activity (shown above). Green and yellow represent low to moderate wildfire hazard; orange to dark red represent high to very high wildfire hazard. The map shows the Marina area of Zone 1 is an area of relatively high hazard due to grass fuels which tend to have high flame lengths. The highest residential hazard areas are located throughout the eastern part of the city, in Zone 2. The hills bordering Tilden Regional Park and to the west of Grizzly Peak Road in the northeast part of the city are areas of highest hazard; these hills are laced with narrow winding roads that do not facilitate evacuation in the event of a fire. The Claremont area near Tunnel Road in the southeast portion of Zone 2 of the city also has a concentration of areas of very high hazard. There are pockets of high hazard along some streets throughout the remainder of the city (in Zone 1), including blocks on both sides of Shattuck Avenue, adjacent to UC Berkeley; the area between San Pablo Avenue and Highway 580; and a small pocket in the area of Martin Luther King Jr. Middle School.

7. Risk Assessment

In anticipation of a new state-wide hazard map in 2023 and for plan consistency, links and references from the adopted General Plan and the City’s recently updated Local Hazard and Mitigation Plan are part of this CWPP. The overlay zones labeled Zones 1, 2, and 3 are used as the formal map of risk for this CWPP.

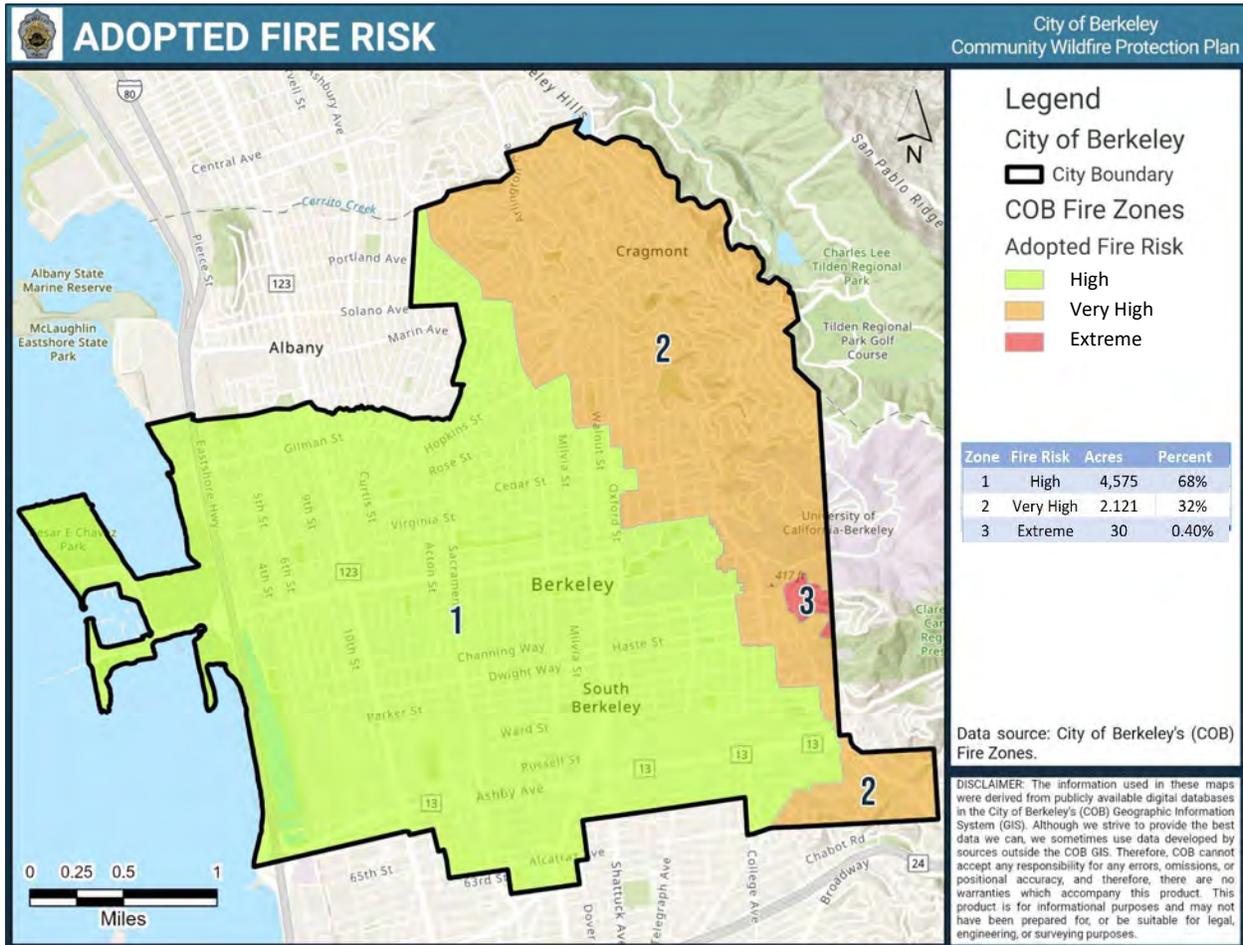


Figure 8. Adopted Fire Risk for City of Berkeley, based on the city’s Fire Zones (per Ordinance No. 7,157-N.S. and Berkeley Municipal Code Chapter 19.28.030).

C. Regulatory and Planning Context

Planning is not done in a vacuum; it instead builds upon and weaves in plans already in existence. This CWPP considers several adopted plans which include the General Plan (especially the Disaster and Safety Element and the Housing Element), the Local Hazard Mitigation Plan, Vision 2050, Watershed Master Management Plan, Resiliency Strategy, Strategic Plan, and the Climate Action Plan. Section 2E, Implementing the CWPP Using a Leveraging Strategy, describes these plans in more detail and relates their contents to the CWPP's program and projects.⁴

D. Social Environment

One of the keystones of the development of a CWPP is to recognize and integrate the social environment of the planning area. This includes integrating the already-existing organizations and influencers within the community. While many more informal opinion-leaders are involved in the planning process, a sample of the social environment is described below.

1. Firewise Communities

Currently, five communities within the City of Berkeley have been recognized as a National Fire Protection Association Firewise Community. Firewise Communities are those that have taken appropriate measures to become more resistant to wildfire structural damage.⁵ These communities are the Park Hills Homeowner Association, Acacia Ave., the San Diego-Indian Rock Firewise Community, BFN Firewise Community (Boynton/Florida); and Lower Fairlawn Firewise Community. Many more neighborhoods have expressed interest and are in the process of becoming recognized as Firewise Communities.

2. Hills Emergency Forum (HEF)

The City of Berkeley is a charter member of the Hills Emergency Forum, a consortium of nine agencies working on fire mitigation measures for the East Bay Hills. It was one of the original six signators to the Hills Emergency Forum October 19, 1993, Letter of Intent.

After a major fire occurred in the early 1990s, the City joined with other public entities to create the Hills Emergency Forum (HEF), in order to share best practices and develop a multi-jurisdictional approach to preparedness for these seasonal Diablo Wind-driven fires. As a member of the Hills Emergency Forum, Berkeley collaborates with other members (representatives from the neighboring cities of Berkeley and Oakland, the East Bay Municipal Utility District, and the University of California, Berkeley) to improve vegetation management and fire response in the Wildland-Urban Interface of the East Bay Hills.⁶

“The Hills Emergency Forum exists to coordinate the collection, assessment and sharing of information on the East Bay Hills fire hazards and, further, to provide a forum for building

⁴ <https://www.opr.ca.gov/news/2022/11-16.html>

⁵ <https://www.nfpa.org/Public-Education/Fire-causes-and-risks/Wildfire/Firewise-USA>

interagency consensus on the development of fire safety standards and codes, incident response and management protocols, public education programs, multi-jurisdictional training, and fuel reduction strategies.

“The HEF is organized through its member agencies, working through its administrative component – the Staff Liaison Committee (SLC). The SLC is responsible for developing and monitoring progress on the Forum’s annual workplan, maintaining liaison with agency executives on HEF issues, identifying issues for possible legislative support, and coordinating the HEF annual public meeting.”⁶

Almost 21 years later, the City remains active with the other eight members of the HEF at monthly staff work sessions and an annual meeting. The City served as HEF Chair in 2020. Staff continues to share best management practices, implement training, and establish regional guidelines, protocols, and standards,⁷ including:

- Fire Danger Operating Plan and Procedures (2010)
- Equipment Operational Guide (2014)
- Roadside Standards (2003)
- Best Management Practices to reduce potential environmental impacts and mitigations from fuel reduction treatments (ongoing)
- Biomass Management (2007)
- Training – East Bay Photo Series for Fuels Inventory (2014)
- Wildland Urban Interface Building Standards (2008)

3. Diablo Firesafe Council

Through the HEF, the City is involved with Diablo Fire Safe Council (DFSC), a 501(c)3 non-profit organization. The DFSC’s role in Alameda and Contra Costa Counties is to serve as a catalyst for bringing together people, agencies, and the means to substantially reduce the impact of wildland fire on our communities.⁸

Whereas the HEF provides an agency-to-agency forum, DFSC provides the City with regular contact with community members and other regional stakeholders to discuss issues related to wildfire.

In 2012, the City provided input to the [Alameda County Community Wildfire Protection Plan](https://diablofiresafe.org/pdf/AICo_CWPP_060512.pdf) (ACWPP) (https://diablofiresafe.org/pdf/AICo_CWPP_060512.pdf). The ACWPP was collaboratively prepared through an 18-month planning process, with input from over 30 agencies and stakeholder organizations, as well as through community surveys. Further information about the planning process can be found at

⁶ From <http://www.hillsemergencyforum.org/mission-goals.html>. Accessed 6/4/2014.

⁷ Available on www.hillsemergencyforum.org

⁸ From <http://www.diablofiresafe.org/> accessed 6/4/2014

www.diablofiresafe.org/ala_co_CWPP.html. A letter of support for the CWPP was signed by City Fire Marshal Steve Riggs in conjunction with other members of the HEF.⁹

The City staff participated in the DFSC sponsored April 30, 2014 “Workshop on Defensible Space,” including the afternoon exercise for inspectors.

Through the HEF, the City gets regular updates on DFSCs current activities, grants, and issues.

4. Neighborhood Groups

The City meets with nearby neighborhood groups (i.e., Panoramic Hill Association, Upper Summit Road Homeowner Association) to inform them of regulations and best practices to improve wildland fire safety. On June 2, 2014, the City of Berkeley sponsored a regional fire forum.

E. City Services and Capabilities

1. Berkeley Fire Department Operations

The Berkeley Fire Department provides 24-hour response to fires, medical emergencies, hazardous materials events, water rescues, disasters, and other life-threatening situations. The Department serves the City of Berkeley and UC Berkeley and responds to over 14,000 calls each year. Berkeley Fire’s seven fire stations are each equipped with an engine, as well as additional equipment including the City’s four reserve engines, two trucks, and four ambulances (plus reserve ambulances), which are all staffed with paramedics. Additionally, Station 2 is equipped with a Hazmat Vehicle and a Utility Vehicle, and Station 7 is equipped with a Quick Response Vehicle and a seasonal EBRPD Engine.

2. Fire Prevention Division

Berkeley Fire Department’s Fire Prevention Division works to decrease the number and severity of all fires in Berkeley through an active code-enforcement program, public education activities, engineering and plans review, and vegetation management. When fires do occur, Fire Prevention staff investigate fire origin and cause and, if needed, prosecute those who are responsible.

3. Wildland Urban Interface (WUI) Division

City of Berkeley Fire Department instituted a WUI division in 2021. The WUI Division is primarily responsible for the coordination of wildland mitigation efforts and related inspection activities. This Division manages or assists wildfire suppression operations, emergency scenarios, planning department-wide activities and functions, programs, and coordinating personnel for the purpose of community service and fire protection.

⁹ HEF letter of support from www.diablofiresafe.org/pdf/HEF_CWPP_support.pdf accessed 6/4/2014

Responsibilities of the WUI division include:

- Develop and establish policies and procedures to implement a comprehensive pre-fire management/wildfire prevention program.
- Develop pre-fire management solutions and implement cooperative projects to reduce potential wildfire losses.
- Development and refine data to be used as a guide for specifying wildland fire protection levels, pre-fire prescriptions, program results and resource allocations.
- Work with federal, state, and local agency staff, and ensure the development of data to support pre-fire analyses.
- Develop subsidiary high risk/high value maps; review field validation of mapping results and develop pre-fire management plans, all-hazard incident mapping and other associated mapping projects.
- Develop vegetation management and control techniques (chipping, masticating, fuel breaks, prescribed fire) and oversee implementation as well as program development and maintenance.
- Assist with post-fire suppression repair and restoration of ecosystem health.
- Assist with wildfire-focused public education programs.
- Develop, implement, and maintain programs related to defensible space inspection, targeted fuel reduction, etc.
- Ensure compliance with California Environmental Quality Act (CEQA) as appropriate for projects and programs.
- Liaise with officials of neighboring fire agencies and allied agencies.

4. Disaster and Fire Safety Commission

This body advises the City Council on all matters affecting fire safety and/or disaster resilience within Berkeley. This commission serves as the citizens' oversight committee for expenditure of the proceeds of the Special Tax to Fund Fire Protection and Emergency Response and Preparedness, as set forth in Berkeley Municipal Code (BMC) Section 7.81.060.

5. Other City Departments involved in the CWPP Planning

This CWPP was fortunate to have the involvement of many City Departments, including Public Works, Planning, and Parks and Waterfront. The other departments offered additional perspectives and insights to the many ways the CWPP can bolster City functions.

F. Pertinent Regulations, Funding Mechanisms

1. Hill Hazard Fire Area District

The Disaster and Safety Element states, "In the aftermath of the 1991 Fire, the City established the Hill Hazardous Fire Area District. The purpose of the District was to expand inspection programs, reduce excess vegetation, and educate residents about the special needs for vegetation management and fire prevention for people living in the urban/wildland interface.

Hazardous fire area inspections were conducted annually by fire companies, between May and September. Vegetation removal programs, including the chipper and debris box programs, continue with funding provided by a surcharge on the refuse bills for residents in the hill area. These established programs have been augmented and expanded via Measure FF funding. In 1997, the City Council-approved assessment district in the Berkeley Hills area ended; however, the danger from a wildfire has not. The continued commitment of the residents to a fire-safe area is critical.”

2. Measure FF

On November 2020, Berkeley voters passed Measure FF with 74.2% approval. Measure FF provides \$8.5 million in funding annually from parcel taxes to pay for fire services, emergency response, 9-1-1 communication, hazard mitigation and wildfire prevention. The Fire Department manages the emergency response and preparedness projects funded by Measure FF, and the Disaster and Fire Safety Commission and the City Council review and approve projects to receive Measure FF funding.

In the 2022 financial year, the City of Berkeley spent \$3 million on 11 projects in the areas of disaster preparedness, department operations, emergency medical services, and employee development and training. \$1.5 million was spent on disaster preparedness through 3 key projects:

- Established a Wildland Urban Interface Division within the Fire Department to focus on improving the City’s preparedness for and resilience to wildfire. This team inspected 8,500 properties (83% more than the previous year) to ensure that they meet the City’s requirements for ‘defensible space,’ a buffer between buildings and any combustible materials (such as vegetation).
- Initiated public outreach for the development of a [Community Wildfire Protection Plan \(https://berkeleyca.gov/safety-health/disaster-preparedness/community-wildfire-protection-plan\)](https://berkeleyca.gov/safety-health/disaster-preparedness/community-wildfire-protection-plan). This plan will lay out the risks that Berkeley faces from wildfires, and goals and projects to help manage these risks.
- Purchased a city-wide outdoor warning system to assist with emergency notifications. Staff have started the process of identifying 15 locations to install the outdoor speakers.

Other notable projects funded by Measure FF include:

- \$500,000 was spent on Department Operations, including assessment of the City’s seven fire stations to provide recommendations for safety improvements.
- \$800,000 was spent on Emergency Medical Services including staffing the City’s ambulances with Emergency Medical Technicians (EMTs) and paramedics.
- \$100,000 was spent on Employee Development and Training, including making training a stand-alone division with its own Assistant Fire Chief and additional staff, and beginning work on the development of a fire training center.

3. Fire Code Adoption

Through Ordinance 7,839-N.S. the City of Berkeley updated and modified the Municipal Code Chapter 19.48, which comprised the Fire Code on December 6, 2022, and was first effective January 5, 2023.

Section 2: Collaboration

Strong working relationships are critical in ensuring our communities are well-prepared. This section describes key partners and paints a full picture of the community's landscape as well as its local preparedness and firefighting resources.

A. Community Engagement Process

Strong community relationships are critical in ensuring our communities are well-prepared. This section describes the community engagement process. The CWPP planning process included seven methods for robust citizen involvement in the development of the Berkeley Community Wildfire Protection Plan:

1. Public meetings. The Disaster and Fire Safety Commission (DFSC) meetings provided real-time opportunities for participation. Four presentations provided interested residents and stakeholders a way to learn more about the CWPP as it developed, as well as to ask questions and provide input.
 - On August 3, 2022, the planning team provided an overview to the Commission about what is a CWPP, the process and timeline for developing the plan, and public engagement opportunities. They also introduced the community base map and the online Hub.
 - On September 28, 2022, the Commission meeting focused on wildfire hazards and risk in Berkeley and potential hazard reduction strategies. The planning team introduced the national Fire Adapted Communities framework to help identify preliminary projects and priority ideas.
 - On December 7, 2022, the planning team presented a preliminary action plan for implementation of the highest priority projects to the Commission.
 - On February 22, 2023, the Commission reviewed the Public Review Draft CWPP with the Priority Action Plan, funding, and implementation strategy.
2. City [website](https://berkeleyca.gov/safety-health/disaster-preparedness/community-wildfire-protection-plan) (<https://berkeleyca.gov/safety-health/disaster-preparedness/community-wildfire-protection-plan>). A project-dedicated page on the City of Berkeley website served as a central location for information. On the webpage were the e-mail link for comments, the ability to subscribe to a mailing list and receive newsletters, a project overview and timeline, as well as resources and links to related documents.
3. Media releases. The planning team worked with the City Public Information Officer to issue media releases timed to announce the four DFSC meetings. These releases also provided information to the City Newsletter and email list.
4. Newsletters. Newsletters issued through the City of Berkeley provided updates throughout the planning process with links to related information. Interested residents could sign up at the City website or on hub to receive the news.
5. Surveys. The CWPP community engagement process included four surveys to gather input. Links to the survey appeared in the media release, newsletter, on the City website and the Hub.

6. The City of Berkeley [Hub](https://cwpp-berkeley.hub.arcgis.com/) (<https://cwpp-berkeley.hub.arcgis.com/>). The online “Hub” provided the opportunity for spatial information and feedback, including an app to “Map your Project.” The online hub included maps and layers such as a community base map with the CWPP boundary, fire hazards, evacuation routes, WUI areas, community assets, topography and watersheds, vegetation, existing fuel reduction projects, fire history, and City Council district boundaries. Also included were FAQs and contact information.

In addition to the CWPP Community Base map, the Hub also provided resources to support community awareness and engagement, housing the surveys and survey results, Frequently Asked Questions (FAQs), and a dedicated email to facilitate public comments.

7. Email (cwpp@cityofberkeleyinfo). Responses to questions or comments were added to the FAQs.

1. Core Team Meetings

The planning process included working sessions with a core team including city staff from Berkeley Fire Department, Parks and Waterfront, Planning, Public Works, and two members of the DFSC. The core team assisted the consultant team throughout the development of the CWPP. The objectives of these meetings included: gathering data; reviewing risk assessment; establishing the Hub site; developing the Community Base Map; gathering public input through submitted surveys and emails; identifying projects; and prioritizing projects. The group also reviewed the administrative draft plan and led the adoption process of the final plan.

2. Surveys

Four surveys were designed as a series of engagement and educational tools to facilitate communication during the development of the Berkeley CWPP. The following results were not intended to be scientific or statistically valid and should not be assumed to reliably reflect the opinions of all Berkeley residents. The surveys, detailed results and community member comments were posted on the [Hub](https://cwpp-berkeley.hub.arcgis.com/) <https://cwpp-berkeley.hub.arcgis.com/>. The results of the survey are described in detail in Appendix A.

Three online surveys were conducted to offer the community an opportunity to provide input on the Action Plan to protect the Berkeley community from wildfire hazards and risks. These surveys ranked priority projects, identified roles, and considered responsibilities, funding needs, and timetables that were used to develop this Action Plan.

Survey 1 focused on overall awareness of wildfire issues and identifying what folks have already done around their own homes and neighborhoods to reduce fire hazard. 205 community members participated in this survey. See Appendix A for survey results.

Survey 2 offered a framework with ten types of hazard reduction strategies and asked the public to prioritize various programs, projects, and activities. 89 community members participated in this survey. See Appendix A for survey results.

Survey 3 asked the public to rank priority projects and provide input on roles, responsibilities, funding needs and timetables. 85 community members participated in this survey. See Appendix A for survey results.

3. CWPP Hub Site

The City of Berkeley CWPP Hub is where the maps, outreach, and information for the CWPP are being organized. The public and stakeholders may view and participate throughout the CWPP process at the [Hub Site: https://cwpp-berkeley.hub.arcgis.com/](https://cwpp-berkeley.hub.arcgis.com/). The CWPP and the products on the Hub Site serve as the basis for project planning and implementation and offer resources to support community awareness and engagement.

In addition to the CWPP Community Base map, the Hub also offers resources to support community awareness and engagement, housing the surveys and survey results, news releases, FAQs, and a dedicated email to facilitate public comments.

4. DFSC and Core Team Meetings

To encourage collaboration and involvement, the City of Berkeley participated in three Disaster and Fire Commission (DFSC) meetings. The objectives of these meetings included: gathering data; reviewing risk assessment; establishing the Hub site; developing the Community Base Map; gathering public input through submitted surveys and emails; identifying projects, and prioritizing projects.

B. Key Partners

The City of Berkeley led the development of this CWPP, with guidance and support from several partners, including the Disaster and Fire Safety Commission. The DFSC's purpose is to advise the City Council on all matters affecting fire safety and/or disaster resilience within Berkeley. The Commission serves as the citizens' oversight committee for expenditure of the proceeds of the Special Tax to Fund Fire Protection and Emergency Response and Preparedness.¹⁰ The DFSC along with the City Council also reviews and approves projects funded by Measure FF.

Other key partners in the development of the CWPP include HEF members, Firewise Communities, and the Hillside Safety Group. Adjacent landowners and jurisdictions are also key partners, including EBRPD, UC Berkeley, Kensington, El Cerrito, Albany, Oakland, and Orinda.

¹⁰ Berkeley Municipal Code Section 7.81.060.

In addition, a fuel buffer around a community and reduced fuels inside the community keep wildfire at bay and provide safe zones for residents and firefighters alike.

- A volunteer or career fire department or fire protection association plays a big role in reducing risk from wildfire and being ready to respond should a wildfire occur. Research shows that firefighters are a local trusted authority in delivering the mitigation message and in helping stakeholders do mitigation. Fire departments are also often the local hero in coalescing local stakeholders in wildfire risk reduction actions on the ground. Fire departments and local law enforcement entities are critical to evacuation training, designation of safe zones and evacuation routes, and promotion of wildfire prevention messaging. More information can be found at [Ready, Set, Go!](https://www.wildlandfirersg.org/s/?language=en_US) (https://www.wildlandfirersg.org/s/?language=en_US)
- Defensible space around structures means flammable fuels – like leaf piles, unmown dry grass, lawnmowers and gas, lawn furniture, propane tanks and wood piles, leaves and needles in the gutters and on the roof, and flammable trees too near the home – are removed or stored in more appropriate places. This defensible space provides a fuel buffer for the structure and a place for firefighters to do structure protection if the home is defensible. More information can be found at [Firewise](https://www.firewise.org/) (<https://www.firewise.org/>) and [Living with Wildfire](https://www.readyforwildfire.org/prepare-for-wildfire/get-ready/) (<https://www.readyforwildfire.org/prepare-for-wildfire/get-ready/>).
- Resilient structures are less susceptible to ignition from embers – the primary cause of structure loss. A resilient structure, for instance, is constructed of less flammable materials, has a class “A” roof (not a cedar shake roof or siding), has metal screen over eave vents, and under decks. More information can be found at [Wildfire Disaster Safety](https://disastersafety.org/wildfire/) (<https://disastersafety.org/wildfire/>).
- Wildland Urban Interface codes and ordinances can define best practices for construction and location of new development in a WUI community and outline resilient materials for developments. For instance, some communities don’t allow cedar shake roofs, siding, or fencing in high-risk areas. Others restrict new developments in high-risk wildfire risk areas where it’s difficult to protect structures at risk. Codes and ordinances are location specific and designed to meet local needs. Not every community has the capacity or funding to develop, implement, or enforce codes and ordinances.¹¹

B. Proposed Priority Strategies

As a result of Survey 2, five strategies were selected by respondents as higher in priority (shown in blue in Figure 10). These are:

1. Fire Prevention
2. Safety & Evacuation
3. Resident Mitigation
4. Wildfire Response
5. Large-scale Landscape Treatment

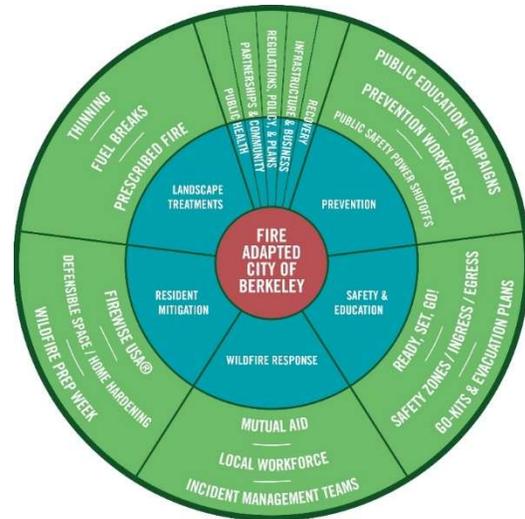


Figure 10. Wheel of Fire Adapted Strategies Customized for the City of Berkeley.

C. Proposed Projects within Strategies

Each of the Priority Strategies has projects that support the strategy. The set of projects form the foundation of the Action Plan.

1. Fire Prevention projects encompass actions that both prevent ignition and loss, through public education campaigns, property inspection, fire weather alerts, community organization and continuing outreach regarding prevention of loss from wildfire.
2. Safety & Evacuation projects improve the community's safety, and assist the community in evacuation process, through actions revolving around planning, notification, signage.
3. Resident Mitigation projects focus on actions individual residents take to improve the wildland fire safety of their own residence and the community, spanning vegetation management and retrofitting homes to become ignition resistant. This includes actions by the City to develop demonstration areas, as well.
4. Wildfire Response projects bolster the effectiveness of wildfire response by improving technology, equipment, coordination and agreements.
5. Large-scale Landscape Treatment (mapped in Figure 11) addresses vegetation management to reduce wildland fire hazards on private and public lands, by creating fuelbreaks, removing dead and dying and hazardous trees and reducing overall fuel volume.

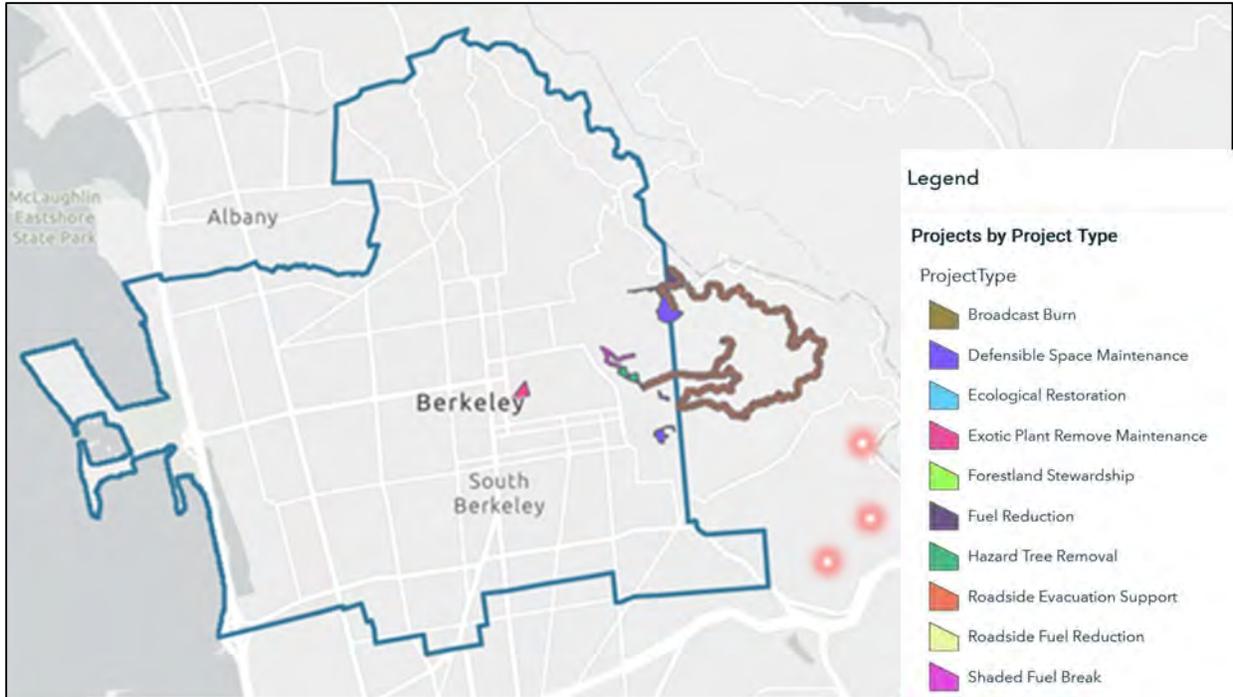


Figure 11. Map of fuel reduction or fuel mitigation projects that are planned or have been completed within the City of Berkeley.

D. Action Plan

1. Project Description

Community Wildfire Protection Plans are effective when the projects and priorities are implemented. Thus, the Action Plan sets the stage for implementation of the City’s projects and priorities. It is a “Call to Action” involving all interested parties, including:

- Private landowners on an individual basis;
- Firewise Communities, acting together; and
- External partners such as neighboring landowners and agencies.

Table 3 is a matrix organized by the strategy it supports with a brief description of the program or project and where it would take place.

The Action Plan identified different programs under the five priority strategies. Some strategies – like Prevention Communication – have ten programs/projects, while other strategies – like Large-scale Landscape Treatment –have six programs that support it. Many of these actions are integrated into work planned by the City Fire Department

Table 3 Action plan with Goals and subgoals, organized by priority strategy.

Berkeley CWPP Action Plan			
Priority	Strategy	Program/ Project	Location
<i>from Survey 2</i>			<i>City property or ROW, private property</i>
1.1	Prevention	City workforce (for outreach + vegetation removal crews)	Zone 2 & 3
1.1a	Prevention	Implement appropriate initial and on-going training for fire inspectors responsible for conducting the annual Defensible Space Inspections.	Zone 2 & 3
1.2	Prevention	City inspectors for risk assessment of individual property and homes	Zone 2 & 3
1.3	Prevention	Public awareness & education campaign; multi-language. Including partnerships and community engagement. Partner community groups (Firewise, HOAs, Hillside Fire Safety Group).	City wide
1.3a	Prevention	Ensure outreach, education, and response messages are provided in multiple formats to ensure effective communication with all community members.	City wide
1.3b	Prevention	Work cooperatively to educate private landowners on fire-safe and defensible measures to increase compliance with regulations.	Zone 2 & 3
1.3c	Prevention	Support neighborhood collaboration to reach NFPA Firewise certification. Provide financial incentives to support participation by all community members, including low-income households.	Zone 2 & 3
1.4	Prevention	Fire weather information (red flag alerts)	City wide
1.4a	Prevention	Collaborate with HHCS to incorporate community readiness for fire weather and wildfire into existing outreach programs.	City wide
1.4b	Prevention	Conduct community-facing exercises to build community capacity to protect health and safety during fire weather and wildfires.	City wide
<hr/>			
2.1	Safety & Evacuation	Road network - safe passages in road right-of-way (striping, no parking signs +enforcement, travelway obstructions)	Zone 2 & 3 ROWs
2.1a	Safety & Evacuation	Coordinate with partners to develop and adopt joint emergency notification and evacuation procedures for use in wildfires that cross jurisdictional boundaries.	City wide + Regional
2.1b	Safety & Evacuation	Design, procure, install, and maintain a citywide Outdoor Warning System to enhance public alerting during evacuations.	City wide
2.2	Safety & Evacuation	Evacuation assistance (residents' recognition of limits of available assistance)	Zone 2 & 3
2.3	Safety & Evacuation	Ingress/ egress route planning	Zone 2 & 3
2.3a	Safety & Evacuation	Identify areas that may serve as temporary areas of refuge for responders and community members during wildfire events.	City wide
<hr/>			
3.1	Resident Mitigation	Vegetation removal around homes - Defensible space + inspections and enforcement (including undeveloped properties + vacant homes) + criteria for "hazardous vegetation"	Zone 2 & 3
3.1b	Resident Mitigation	Use public open spaces as demonstration areas for Zone 0 landscaping.	City wide
3.2	Resident Mitigation	Incentives to create Zone 0 around homes. Remove easily ignitable materials on homes (paper, fabric, plastics). Criteria for "non-combustible" materials.	Zone 2 & 3
3.3	Resident Mitigation	Home hardening retrofit of existing structures - retrofit guide, trainings/ consultations + incentives + inspections and enforcement	Zone 2 & 3

Priority	Strategy	Program/ Project (continued)	Location
4.1	Wildfire Response	Fire ignition detection/ enforcement (technology, fire patrols (Fire Dept + volunteers), closures/ restrictions, enforcement of no fireworks, no open flame, no smoking, portable BBQs)	City wide + Regional
4.2	Wildfire Response	Regional pre-attack coordination (including temporary fire fighter refuges/ safety zone, conditions to fight fire or not + mutual/ automatic aid + training +update hazard/ risk assessments)	City wide + Regional
4.2a	Wildfire Response	Design, procure, and maintain apparatus, equipment, and trained personnel capable of delivering emergency water in the event that water delivery infrastructure is insufficient. This shall include wildland fire command vehicles, fire attack vehicles, water tenders, and a system to deliver sustained water over multiple days.	City wide + Regional
4.2b	Wildfire Response	Review and update existing mutual and automatic aid agreements to improve fire suppression resources	City wide + Regional
5.1	Large-scale landscape Treatment	Incentive for wildfire hazardous tree and vegetation management within 100' of homes (cost share, SNAP, chipping, green waste , eucalyptus management, etc.)	Zone 2 & 3
5.2	Large-scale landscape Treatment	Hazardous tree and vegetation removal on public property (parks and roadsides) + collaboration with agency partners for adjacent lands	City wide
5.2a	Large-scale landscape Treatment	Work with partner departments to maintain public open spaces and urban forests so that ground fuels are less likley to promote the ignition and spread of wildfire and aerial fuels are less likley to the spread fire through the tree canopy.	City lands
5.3	Large-scale landscape Treatment	Promote urban forest health through removal of dead and dying trees (private and public lands)	City wide
5.3a	Large-scale landscape Treatment	Balance and integrate fuel modification with habitat and open space management, vegetative soil cover/erosion management, and urban greening, to reduce the potential for conflicts between safety and environmental goals.	City wide
5.3b	Large-scale landscape Treatment	Work with public landowners and fire departments adjacent to the City to disrupt fuel continuity in key fire pathways and provide fuel breaks in key strategic areas and near points of special interest.	Zone 2 & 3 + Regional

2. Funding Sources

Funding for wildfire mitigation projects comes from a variety of sources, such as State or Federal grants, City budgets (from property tax, special assessments, or general funds), or donations. Each funding mechanism has unique requirements, strengths, and weaknesses. Some are best suited for one-time expenditures, such as capital improvements, while others are suited for ongoing maintenance activities. The requirements and conditions related to each mechanism should not be overlooked.

While some funding sources can be directed through allocation of City departments' budgets other funding sources could best be developed through collaborative planning (such as the Community Wildfire Protection Plan). Some funding sources are relatively easy to obtain, while others require an intricate application process. Some include administrative burdens associated with monitoring how funds are spent and complex reporting requirements. The sustainability of funds is another key difference.

Many projects do not require funding, but are sustained instead through collaboration, staff time, volunteerism, and the self-interest of parties involved. However, most projects in this CWPP require funds to hire staff, purchase equipment, or increase training, and to pay vendors to conduct work and perform services.

Implementation of the Action Plan of this CWPP requires a patchwork of mechanisms to cover fire mitigation projects. Multiple sources provide greater stability, more funds, increased continuity, more stakeholders with greater buy-in, and the ability to expand the scope and scale of work. Different stakeholders within the City can collaborate on the acquisition of funds. For example, some funding can be obtained by only fire departments, while other sources require private non-profit entities or communities to receive funds. Anticipated sources of funding include:

Municipal Funding

Measure FF has been a boon to funding for programs aimed at wildfire fire safety. This funding mechanism can be expected to continue, to support the many programs outlined in the Action Plan. If the county populace so chooses, projects could be funded through a regular, ongoing funding mechanism.

Federal Programs

Federal funding is distributed through many avenues, and most federal grants can be researched electronically. Commonly used major programs for fire safety fund mitigation are the National Fire Plan and the Healthy Forest Restoration Act. Major grants are provided through the Federal Emergency Management Agency (FEMA) and the U.S. Fire Administration. Many grants are extremely competitive, with requests for funding far exceeding available funds, while others have a specific focus.

Two primary programs funded by FEMA provide assistance to fire departments. These vary on grant size, non-Federal match requirements, the population size a fire department serves, and the location in relation to the funding agency's lands. They typically provide funding for organizing, training, prevention materials, and equipment to protect the health and safety of the public and firefighting personnel. All FEMA grants offer large-scale funding opportunities, and also carry a significant administration burden.

Assistance to Firefighters: This FEMA grant program includes the overall Assistance to Firefighters Grant (AFG) and the Fire Prevention and Safety Grant Program. AFG is limited to fire departments. Fire Prevention and Safety Grants are open to a wider range of organizations.

FEMA Disaster Mitigation Programs: The Disaster Mitigation Program includes the Hazard Mitigation Grant Program (HMGP) and Pre-Disaster Mitigation Program (PDM). In order to qualify for these funds, the local jurisdiction must have a Local Hazard Mitigation Plan (LHMP) that is reviewed by the State Mitigation Officer and then approved by FEMA.¹²

- HMGP funds are available after a disaster has been declared to mitigate future risk from any type of disaster (amounts available are linked to the total emergency funds). The HMGP program coordinates with CAL OES and their local support of their Hazard Mitigation Planning.¹³
- The PDM facilitates cooperation between state and local authorities with funds awarded competitively for both planning and project implementation activities at the state and local level, as a subgrantee.

FEMA Building Resilient Infrastructure and Communities (BRIC): Building Resilient Infrastructure and Communities (BRIC) supports local communities, as they undertake hazard mitigation projects, reducing the risks they face from disasters and natural hazards. This program supports communities through capability- and capacity-building; encouraging and enabling innovation; promoting partnerships; enabling large projects; maintaining flexibility; and providing consistency.

National Conservation of Resources Services (NCRS): NRCS implements a grant program aimed at promoting effective and safe land management practices on private lands. Grants are provided for equipment, planning and management, and reward collaboration and cooperation between adjacent landowners. Fire hazard reduction that increases habitat and watershed value is more likely to be funded.

¹² Local governments must have a Local Hazard Mitigation Plan (LHMP) that is reviewed by the State Mitigation Officer and then approved by FEMA, prior to November 1, 2004, as this is a required condition of receiving FEMA mitigation project assistance. LHMPs must be revised, reviewed, and approved every five years. Source: Governor's Office of Planning and Research. Fire Hazard Planning Technical Advisory. 2020 Update. https://opr.ca.gov/docs/20201109-Draft_Wildfire_TA.pdf

¹³ <https://www.caloes.ca.gov/cal-oes-divisions/hazard-mitigation/hazard-mitigation-planning>

State Aid Programs

The State of California operates a Grants Portal¹⁴ that can be used to find out about the latest grants that could support fire hazard planning or implementation, including fire hazard mitigation, climate adaptation, forest management, urban forest programs, community engagement projects, and other related projects and programs.

There are two primary sources of funding from the State of California that may be accessed to fund implementation of the Action Plan. One of these is the suite of CAL FIRE grants, spanning its Wildfire Prevention Grant, Forest Health Grant, and the Research and Development Grant. Of these, the most applicable would be the Wildfire Prevention Grant, which supports implementation of projects aimed at reducing damage from wildfire and release of greenhouse gases.

The other, the Regional Forest and Fire Capacity Program (RFFC) of the Department of Conservation in the Resources Agency,¹⁵ is emerging as a key source of funding to address gaps in capacity for project development, testing and evaluation of innovative risk reduction strategies, and support for regional collaborations and networks such as Orange County's COAST Fire Prevention Working Group, or more locally, the Resource Conservation Districts.

The RFFC Program is a newer funding program of the state administered through the Department of Conservation. It makes block grants to regions based on a formula, to increase regional capacity to collaboratively prioritize, plan, develop, and implement projects and initiatives to reduce wildfire risk and improve habitat health and resilience including increasing carbon sequestration.

CAL FIRE also plays an important role in distributing implementation grant funds aimed at assisting private landowners. The following programs are under the State and Private Forestry branch of USDA Forest Service, the Natural Resources Conservation Service, and the Cooperative State Research, Education, and Extension Service.

- While many programs are aimed at more rural landowners, an Urban and Community Forestry (U&CF) Program, and the Economic Action Program (EAP) could assist implementation of projects and programs in Berkeley's CWPP.
- Urban and Community Forestry Program funds local grants that optimize the benefits of trees and related vegetation through multiple-objective projects as specified in the California Urban Forestry Act of 1978 (PRC Section 4799.06-4799.12). These projects further the goals of AB 32, result in a net greenhouse gas benefit, and provide environmental services and cost-effective solutions to the needs of urban communities and local agencies. This program is funded by California Climate Initiative (CCI). In recent years, the program has funded: urban forest expansion and

¹⁴ <https://www.grants.ca.gov/>

¹⁵ <https://www.conservation.ca.gov/dlrp/grant-programs/Pages/Regional-Forest-and-Fire-Capacity-Program.aspx>.

improvement, urban forest management activities, and urban wood and biomass utilization. Three types of grants are currently being provided: Urban Forest Expansion and Improvement, Urban Forest Management Activities, and Urban Wood and Biomass Utilization.¹⁶

¹⁶ CAL FIRE Urban and Community Forestry Grant programs at <https://www.fire.ca.gov/grants/urban-and-community-forestry-grant-programs/>

E. Implementing the CWPP Using a Leveraging Strategy

Community wildfire protection planning has evolved from the 2003 Healthy Forest Restoration Act to the current focus on Fire Adapted Communities. The process of addressing wildfire risk has expanded beyond collaboration, prioritization of fuel reduction projects, and reduction of structure ignitability to include a wide range of additional issues as identified in the Berkeley CWPP Priority Action Plan.

Similarly, the type of interested parties have expanded beyond the collaboration between fire agencies and residents and includes a wide coalition of partners to reach the goal of resilience to wildfire, while supporting many other mutual benefits.

The implementation strategy of the Berkeley CWPP recognizes the power of leveraging on-going efforts, and new directions from many partners, including:

- City of Berkeley departments: City staff efforts can be achieved through plan integration and consistency with existing programs and campaigns in many departments including Fire, Public Works, Planning, and Parks and Waterfront. A multi-department task force was created during the development of the CWPP.

Berkeley Fire Department outreach and education efforts incorporate multiple channels including direct contact, media coverage, social media, and paid advertising. The “ambassador program” recruits volunteer students, residents with “lived experience of wildfire,” and others to serve as amplifiers to increase the reach throughout Berkeley and help share information. These ambassadors will assist with canvassing neighborhoods with educational flyers and other direct contact educational programs. Examples include a chipping program door hanger and attractive stickers with “QR codes” for more detailed information about new programs. Meetings, such as the popular Councilmember Townhalls early in fire season, will be expanded by other seminars, presentations, and workshops. Formal meetings will be augmented with informal presence at community events, such as farmers markets, city holiday events and emergency preparedness fairs. School programs will be coordinated with the Office of Emergency Services to provide basic emergency preparedness and wildland urban interface fire information.

The Fire Department “Firesafe Berkeley” website continues to play a central role to facilitate dissemination of information on new services and educational materials (<https://www.berkeleyfire.com/firesafe>). The website provides information on: preparing for your annual inspections, understanding wildfire risks in Berkeley, create your defensible space, harden your home and use our free chipper service offered throughout the city, The CWPP Hub will continue to have a role in outreach and education, identifying locations of new Firewise Communities and other geographic information (<https://cwpp-berkeley.hub.arcgis.com/>).

Other outreach and education efforts include:

- Enhanced defensible space inspections that provide not only inspections of residential properties, but also person-to-person education about defensible space and home hardening. Data from these inspections and the chipping service will be aggregated to be able to show progress made by residents.
- A workforce development program partnering with Berkeley Youthworks. This program brings interns into the Wildland Urban Interface Division as an initial step in their fire department careers.
- A demonstration area at Station 4 at 1900 Marin Avenue, showcasing how to create “Zone 0” around structures, spacing between shrubs, appropriate use of ground covers under trees, and use of succulents to both minimize water use and provide a garden with plants of high moisture content.
- **Adjacent public agencies:** Fire does not recognize jurisdictional boundaries. Neighboring fire agencies respond through the mutual aid agreements and the State Emergency Management System. Many of the region’s residents evacuate along same routes. Given these facts, adjacent cities and public lands management agencies share many of the goals identified in the Berkeley CWPP. These include the Cities of Albany, El Cerrito, Kensington, and Oakland. Land management agencies include the East Bay Municipal Utility District, East Bay Regional Parks District, Lawrence Berkeley National Laboratory, and University of California, Berkeley. Many of these partners have adopted plans, programs, and ongoing projects addressing wildfire hazards (see Figure 12 in Appendix C). Alameda and Contra Costa Countywide CWPPs and the Regional Priority Plan for both counties identify projects for funding.

Shared mitigation approaches can begin to address some of the more difficult regional challenges identified in the CWPP. Key challenges include coordination on fire weather information, red flag days, policies to close operations, and the identification of buildings suitable for temporary sheltering. Adjacent public agencies also coordinate on protocols for the potential evacuation of summer day camps, such as those operated on lands owned by Berkeley, EBRPD, UC Berkeley, Lawrence Hall of Science etc. These day camps often depend upon shared evacuation routes, buses, and other resources. Coordination also includes planning for the city-owned residential camps located in the Sierra where planning, grant funding fuel mitigation and evacuation needs are similar to facilities located within the City of Berkeley.

- **Regional multi-agency collaboratives:** The East Bay has several multi-agency collaboratives that Berkeley staff has helped shape. These include the Hills Emergency Forum, Diablo FireSafe Council and the Association of Bay Area Government technical advisory for wildfire and housing. Continued involvement can offer new approaches from other regions for the implementation of the CWPP.
- **Other stakeholders:** Successful implementation of the CWPP will require collaboration with other stakeholders to reach areas that the public sector does not or cannot manage. Stakeholders include residents, HOAs, community organizations, Firewise communities and special interest groups. Many of these private landowners play key roles as they are

the only people can who make the final decision about their own property: to retrofit their home to be ignition resistant, maintain their gardens, or prepare their family for evacuation.

Table 4 provides a snapshot of which strategies, programs, or projects are supported. This table relates the strategies in the CWPP as noted in the top columns with the various plans, programs, and policies listed to the left in the table. The plans policies and programs include:

1. City of Berkeley Adopted Plans and Policies;
2. City of Berkeley Codes and Ordinances;
3. City of Berkeley programs and implementation measures;
4. Adjacent Agencies Wildfire Hazard Reduction Plans + CWPP; and
5. Compliance with State Laws (Legislative/ State requirements).

The table identifies which priority actions can take a “lead” role in a plan policy or programs, such as implementing compliance standards for defensible space inspections or the safe passages program. It also identifies where it makes sense to incorporate portions of the CWPP priority actions into another existing plan or program where the CWPP may play a supporting role or provide information, such as in the Housing Element or Berkeley Vision 2050 plan. The third category that is identified is where the CWPP complements another set of policies and programs but may not have an active role in the strategy. For example, the priority actions complement or link to plans by other agencies, or in City of Berkeley codes and ordinances.

Appendix C explores the existing adopted plans and policies, codes and ordinances, programs and implementation measures, adjacent agencies’ plans, and legislation/state requirements with their unfunded mandates for local government, and explains how they can be leveraged during the implementation of the CWPP to achieve the Priority Action Plan.

Table 4. Existing plans, programs and policies that support CWPP Action Plan.

Leveraging the Berkeley CWPP						Lead	CWPP to lead plan or program				
Existing plans, programs and policies that support CWPP Action Plan						Incorporate	CWPP to be incorporated into plan or program				
						Complement	CWPP complements or links to plan or program				
		Supports Priority Action Plan					Supports additional FAC strategies				
		Prevention	Safety & Evacuation	Resident Mitigation	Wildfire Response	Large Scale Landscape Treatment	Regulations, Policies & Plans	Infrastructure & Business	Recovery	Partnerships and Community Engagement	Public Health
City of Berkeley Adopted Plans and Policies											
Disaster Preparedness & Safety Element of the City of Berkeley General Plan.	see LHMP for Updated Plan										
Local Hazard Mitigation Plan, 2019.		Incorporate	Incorporate	Incorporate	Incorporate	Incorporate	Incorporate	Incorporate	Incorporate	Incorporate	Incorporate
Housing Element, 2023 in progress			Incorporate				Incorporate				Incorporate
Berkeley Vision 2050 - Planning for a Sustainable and Resilient Future, 2020. Implementation reports 2021+.		Incorporate	Incorporate				Incorporate	Incorporate			Incorporate
Subdivision Review, Response to AB2011, 2022 in progress			Incorporate								Incorporate
Fire Risk Reduction Community, 2022. Response to AB1823.			Incorporate				Incorporate				
Berkeley Watershed Master Management Plan, 2012			Incorporate			Incorporate		Incorporate			
Berkeley Resilience Strategy, 2016		Incorporate	Incorporate				Incorporate	Incorporate	Incorporate		Incorporate
Berkeley Strategic Plan, 2018		Incorporate	Incorporate				Incorporate	Incorporate	Incorporate	Incorporate	Incorporate
Climate Action Plan, 2009. Update 2022.		Incorporate		Incorporate			Incorporate		Incorporate		Incorporate
City of Berkeley Codes and Ordinances											
Municipal Code Chapter 19.48.020 Amendments to CA Fire Code known as "Berkeley Fire Code" (BFC).		Complement		Complement			Complement				Complement
Compliance standards for Defensible Space Inspections		Lead		Lead			Lead			Lead	
Chapter 6.52 City Trees and coast live oak		Complement		Complement		Complement					
Chapter 7.80 Fire Prevention and Preparedness Assessment		Complement		Complement			Complement				Complement
Chapter 12.99 Wildfire evacuation risk mitigation ordinance			Lead				Complement				Complement
Chapter 17.08 Preservation and restoration of natural watercourses						Complement	Complement				Complement
Chapter 19.28.030 CBC Chapter 7A materials and construction methods for exterior wildfire exposure				Complement			Complement				Complement
Chapter 19.29.05 CRC Section R337 Materials and Construction Methods for Exterior Wildfire Exposure				Complement			Complement				Complement
Code 19.48 Berkeley Fire Code + 19.48.020 Amendments to CA Fire Code				Complement			Complement				Complement
Chapter 21.40 Design requirements				Complement			Complement				Complement
Chapter 23.108.020 Zoning Districts				Complement			Complement				Complement
Chapter 23.202.070 ES-R Environmental Safety - Residential District (Panoramic Hill)				Complement			Complement				Complement
Chapter 23.210.020 Hillside Overlay Zones				Complement			Complement				Complement
Chapter 23.306 Accessory Dwelling Units				Complement			Complement				Complement
Ordinance 7680 amendments to CA Fire Code - adopt VHFHSZ pursuant to GCS1179(1) and 14CCR1280.02				Complement			Complement				Complement
COB 7799 Planning and zoning requirements more conservative than 14CCR 1299.03				Complement			Complement				Complement
City of Berkeley programs and implementation measures											
Measure FF + Measure GG funded programs											
• WUI Division		Lead		Lead							Complement
• Defensible Space Inspection Program.				Lead							Complement
• Vegetation removal programs		Lead		Lead							Complement
• Safe passages program			Lead								Complement
		Supports Priority Action Plan					Supports additional FAC strategies				
		Prevention	Safety & Evacuation	Resident Mitigation	Wildfire Response	Large Scale Landscape Treatment	Regulations, Policies & Plans	Infrastructure & Business	Recovery	Partnerships and Community Engagement	Public Health

Leveraging the Berkeley CWPP (continued)					Lead	CWPP to lead plan or program					
<i>Existing plans, programs and policies that support CWPP Action Plan</i>					Incorporate	CWPP to be incorporated into plan or program					
		Supports Priority Action Plan				Supports additional FAC strategies					
		<i>Prevention</i>	<i>Safety & Evacuation</i>	<i>Resident Mitigation</i>	<i>Wildfire Response</i>	<i>Large Scale Landscape Treatment</i>	<i>Regulations, Policies & Plans</i>	<i>Infrastructure & Business</i>	<i>Recovery</i>	<i>Partnerships and Community Engagement</i>	<i>Public Health</i>
City of Berkeley programs and implementation measures (continued)											
• Berkeley Ready			Lead							Complemen t	Complemen t
• Evacuation outdoor warning system			Lead							Complemen t	Complemen t
• Firewise communities		Lead		Lead						Complemen t	Complemen t
• CWPP development, implementation and updates		Lead					Complemen t				Complemen t
• Additional emergency vehicles and larger training facility					Lead						Complemen t
Adjacent Agencies Wildfire Hazard Reduction Plans + CWPP											
Alameda County CWPP		Complemen t	Complemen t	Complemen t	Complemen t	Complemen t				Complemen t	Complemen t
Association of Bay Area Governments. Wildfires - how to preserve and protect housing		Complemen t	Complemen t	Complemen t		Complemen t	Complemen t	Complemen t	Complemen t	Complemen t	Complemen t
City of Albany - Albany Hill Master Plan 2012		Complemen t			Complemen t	Complemen t					
City of El Cerrito/ Kensington CWPP		Complemen t	Complemen t	Complemen t	Complemen t	Complemen t				Complemen t	Complemen t
Contra Costa County CWPP		Complemen t	Complemen t	Complemen t	Complemen t	Complemen t				Complemen t	Complemen t
East Bay Municipal Utility District - Watershed Master Plan		Complemen t			Complemen t	Complemen t					
East Bay Regional Parks District - Wildfire Management and Resource Management Plan 2010		Complemen t			Complemen t	Complemen t					
El Cerrito Kensington CWPP		Complemen t	Complemen t	Complemen t	Complemen t	Complemen t				Complemen t	Complemen t
Lawrence Berkeley Laboratory - Wildland Fire Management Plan + Comprehensive Vegetation Management Plan.		Complemen t			Complemen t	Complemen t					
Oakland Safety Element		Complemen t	Complemen t	Complemen t	Complemen t	Complemen t				Complemen t	Complemen t
Oakland Vegetation Management Plan & EIR. In progress.					Complemen t	Complemen t					Complemen t
University of California, Berkeley - Wildfire Mitigation Plan and EIR 2021		Complemen t			Complemen t	Complemen t					
Compliance with State Laws (Legislative/ State requirements)											
AB38 (2019) real estate transaction certifications				Complemen t							Complemen t
AB747 (2019) Evacuation routes: capacity, safety and viability under range of scenarios			Complemen t				Complemen t				Complemen t
AB1550 + SB535 (2012/2016). Identification of priority populations (disadvantaged and low income) for California Climate Investment funds.							Complemen t				Complemen t
AB1823 (2019) Fire Risk Reduction Communities							Complemen t			Complemen t	
AB2911 (2018) +SB99 (2019) subdivisions without secondary egress routes			Complemen t								Complemen t
AB3074 (2020) Ember resistant Zone (Zone 0)		Complemen t		Complemen t							
SB9 (2021). Housing development approvals.							Complemen t				Complemen t
SB99(2019). Identify developments without two emergency evacuation routes upon revision of housing element.			Complemen t								Complemen t
SB246, SB379, SB1035 (2015, 2018). Integrated climate adaptation and resilience strategies with ICARP.						Complemen t	Complemen t		Complemen t		Complemen t
SB1241 + SB2160. Include fire risk in SRA and VHFHSZ in safety element. Include considerations from OPR Fire Hazard Planning. Transmit VHFHSZ, safety element and tentative map or parcel map to BOF to review.							Complemen t				
Supports Priority Action Plan											
		<i>Prevention</i>	<i>Safety & Evacuation</i>	<i>Resident Mitigation</i>	<i>Wildfire Response</i>	<i>Large Scale Landscape Treatment</i>	<i>Regulations, Policies & Plans</i>	<i>Infrastructure & Business</i>	<i>Recovery</i>	<i>Partnerships and Community Engagement</i>	<i>Public Health</i>

Signatures

This plan must be approved by the following key parties: the Berkeley Fire Chief, CAL FIRE Santa Clara Unit Chief, and the Berkeley City Council. Each entity will offer a signature page that will be appended to the plan. Each signature page contains the following language:

The Community Wildfire Protection Plan as developed for the City of Berkeley:

- Was collaboratively developed and meets the intent of the Healthy Forest Restoration Act (HFRA) in emphasizing the need for agencies to work collaboratively with communities in developing hazardous fuel reduction projects, and places priority on treatment areas identified by communities themselves in a CWPP. Interested parties and federal land management agencies in the vicinity of this CWPP have been consulted.
- Identifies and prioritizes areas for hazardous fuel reduction treatments and recommends the types and methods of treatment that will protect areas within this CWPP.
- Recommends measures to reduce ignitability of structures throughout the area addressed by the plan.
- Is intended for use as a planning and assessment tool only, utilizing a compilation of community issues and goals and projected fire mitigation strategies. The CWPP is not to be construed as indicative of project “activity” as defined under the “Community Guide to the California Environmental Quality Act, Chapter Three, Projects Subject to CEQA.” Per the Community Guide, Section 3.1.1, “CEQA only applies to public agency decisions to approve, or actions to carry out, a discretionary project.” Any actual project activities meeting this definition of project activity and undertaken by the CWPP participants or agencies listed shall meet with local, state, and federal environmental compliance requirements.
- Assists and encourages compliance with current county and state fire code standards. The Community Wildfire Protection Plan as developed for the City of Berkeley was collaboratively developed and meets the intent of the Healthy Forest Restoration Act (HFRA) in emphasizing the need for agencies to work collaboratively with communities in developing hazardous fuel reduction projects, and places priority on treatment areas identified by communities themselves in a CWPP. Interested parties and federal land management agencies in the vicinity of this CWPP have been consulted.
 - Identifies and prioritizes areas for hazardous fuel reduction treatments and recommends the types and methods of treatment that will protect areas within this CWPP.
 - Recommends measures to reduce ignitability of structures throughout the area addressed by the plan. Is intended for use as a planning and assessment tool only, utilizing a compilation of community issues and goals and projected fire mitigation strategies.

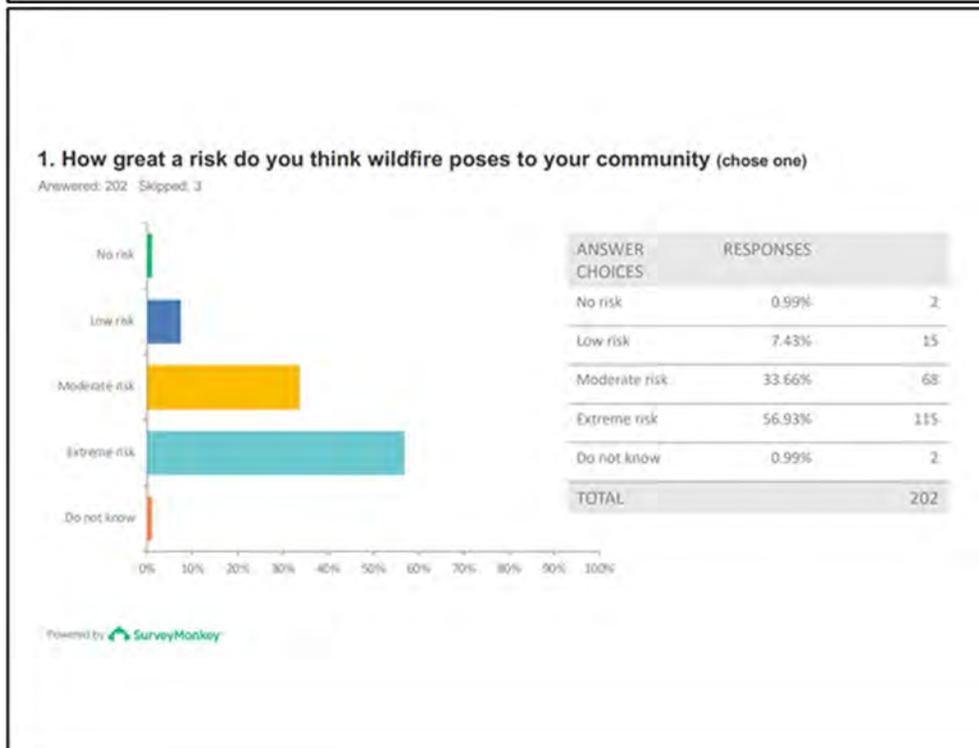
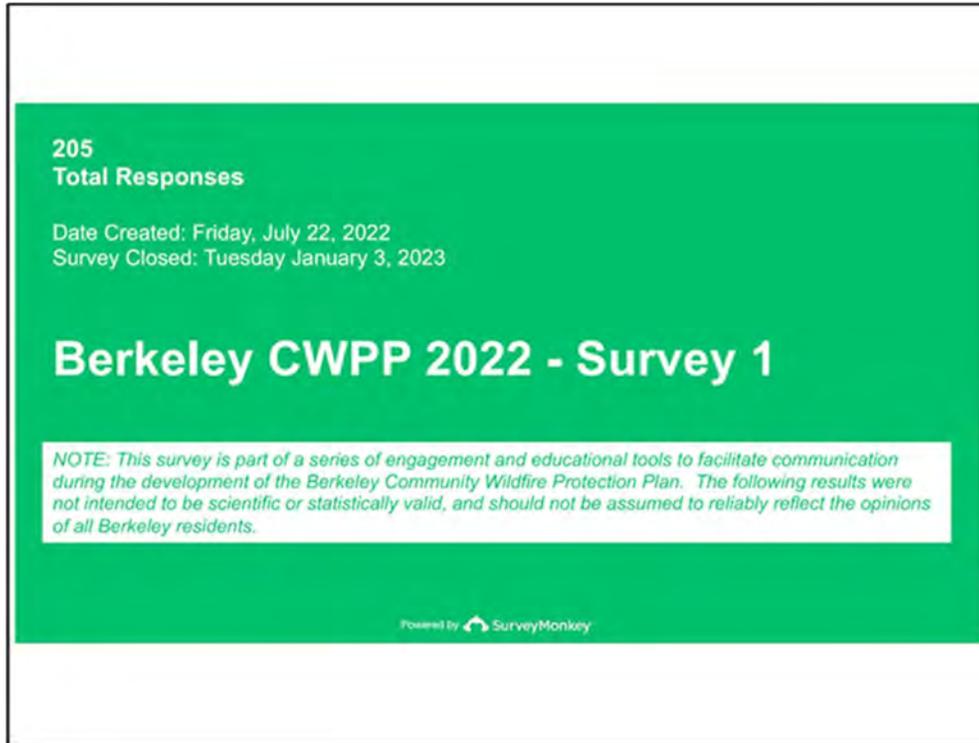
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actual project activities meeting this definition of project activity and undertaken by the CWPP participants or agencies listed shall meet with local, state, and federal environmental compliance requirements. Assists and encourages compliance with current county and state fire code standards.

Appendices

Appendix A: Surveys

A. Survey 1



2. Check those factors you think add to your neighborhood's risk of wildfire (check all that apply)

Answered: 202 Skipped: 3

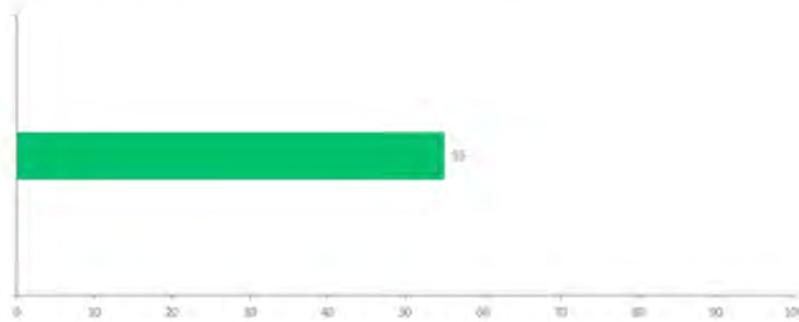


ANSWER CHOICES	RESPONSES
Fuel load (vegetation)	70.30% 142
Buildings (construction, materials, location or design)	42.08% 85
Adjacent wildlands	61.88% 125
Steep topography	46.53% 94
Fire weather	79.70% 161
Inaccessible locations	31.68% 64
Single road access	40.59% 82
Limited fire protection	21.29% 43
Limited water for fire fighting	26.24% 53
Utilities (overhead electric wires)	59.90% 121
Human activities (potential ignition sources)	51.49% 104
Lack of community preparedness	46.04% 93
Other, please specify	26.24% 53
TOTAL	1220

Powered by SurveyMonkey

3. On a scale of 1 to 100, how ready are you and your family ready to deal with wildfire.

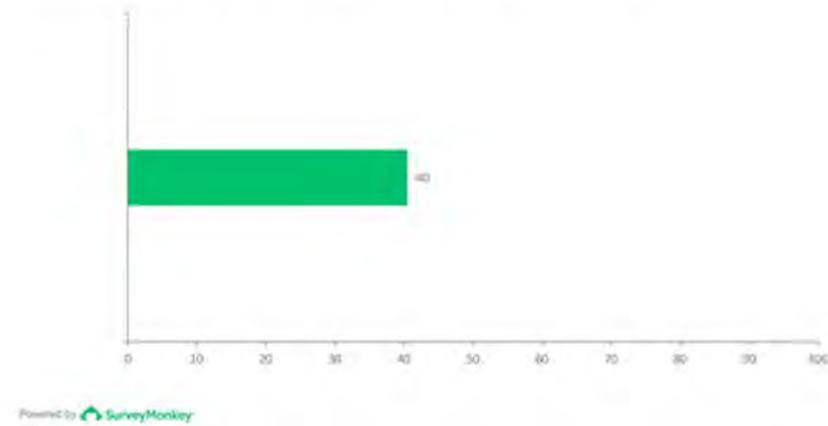
Answered: 201 Skipped: 4



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4. On a scale of 1 to 100, how ready is your neighborhood to deal with wildfire.

Answered: 197 Skipped: 3



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5. What actions have you taken to prepare your family, home, property and community to reduce the risk of wildfire? (check all that apply).

Answered: 199 Skipped: 6



ACTION CHOICES	RESPONSES
Became informed about wildfires and what we can do as a family to reduce the risk.	82.42% 168
Watched the weather for red flag days and taken ignition-reduction actions.	79.40% 158
Signed up for AC Alert for emergency communications (https://www.ac-alert.com/).	84.92% 169
Ensure our family knows our "zone" for evacuation (https://www.fire.gov/evaczone/).	58.29% 116
Inspected our home for vulnerable areas and done extra ignition-generation actions.	57.29% 114
Completed basic home hardening retrofits and repairs (https://www.fire.gov/evaczone/evaczone.html).	39.70% 79
Completed more advanced home hardening retrofits (https://www.fire.gov/evaczone/evaczone.html).	13.07% 26
Worked with neighbors or friends to reduce chance of wildfire around our homes.	17.09% 34
Become trained as a CERT volunteer, active in firewise, or fire pullout, during red flag.	10.55% 21
Completed defensible space installation requirements.	28.64% 57
Participated in Berkeley chipping and green waste pick-up program.	44.72% 89
Park off-street or inside a garage to improve fire engine access along our narrow street.	44.72% 89
Other (please specify)	3.01% 6
TOTAL	199

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6. In developing Berkeley's Community Wildfire Protection Plan we are exploring a variety of actions to reduce the risk of wildfire to neighborhoods. Which of the following recommendations do you think would be effective for your neighborhood? (check all that apply)

Answered: 200 Skipped: 5

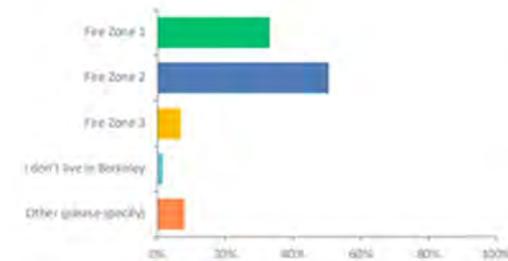


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ANSWER CHOICES	RESPONSES
Education to build awareness	45.00%
Collaborative projects to address wildfire along ignition reduction programs (Smoky bear, school)	40.00%
Training of volunteers (such as DRI, Firewise or inspections/ enforcement of defensible space by	35.00%
Engineers/ changes to equipment or potential	30.00%
Monitoring of fire weather and raising red flag	25.00%
Fire patrols during high fire danger weather	20.00%
Closures and public use restrictions during high	15.00%
restrictions on equipment or types of work during	10.00%
Actions to reduce vegetation around homes	5.00%
Actions to improve home resilience to ignition	5.00%
Actions to reduce vegetation in open space	5.00%
Roadside tree removal on public lands	5.00%
City funded incentive program to support	5.00%
community-wide cleanup and green waste pick-	5.00%
funding for neighborhood led projects	5.00%
Other (please specify)	5.00%
TOTAL	100%

7. In which Fire Zone do you live? (See map to identify zone <https://arcg.is/1v9Xm4>)

Answered: 202 Skipped: 3

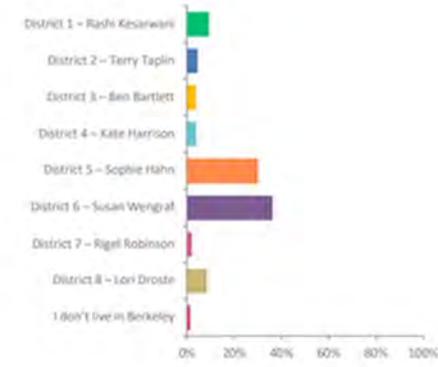


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ANSWER CHOICES	RESPONSES
Fire Zone 1	33.17% 67
Fire Zone 2	50.50% 102
Fire Zone 3	6.93% 14
I don't live in Berkeley	1.49% 3
Other (please specify)	7.92% 16
TOTAL	202

8. In which the Berkeley City Council District do you live?
 (See map to identify district <https://arcg.is/PiDv50>)

Answered: 202 Skipped: 3



ANSWER CHOICES	RESPONSES
District 1 - Rashi Kesarwani	9.41% 19
District 2 - Terry Taplin	4.46% 9
District 3 - Ben Bartlett	3.96% 8
District 4 - Kate Harrison	3.96% 8
District 5 - Sophie Hahn	30.20% 61
District 6 - Susan Wengraf	36.14% 73
District 7 - Rigel Robinson	1.98% 4
District 8 - Lori Droste	8.42% 17
I don't live in Berkeley	1.49% 3
TOTAL	202

Comment provided on individual questions on Survey 1

205 responses survey closed 1/3/23

2. Check those factors you think add to your neighborhood's risk of wildfire

Other = 53 responses

1. Driving in the Berkeley Hills is dangerous. There are houses with driveways and garages, but people park in the streets instead, which leads to only single road access. Berkeley should force people to park on their property instead of the narrow streets.
2. garbage cans left in narrow streets will impede evacuation
3. Climate change
4. Cars parked on both sides of the street so that it would be difficult for emergency vehicles, particularly fire engines, to get through. Also an evacuation would be difficult because of narrow winding streets. Trying to do both these things at once would be very difficult or impossible.
5. Narrow winding steep streets. Most houses were built more than 50 years ago. Vegetation close to houses
6. My neighborhood is very low risk; Telegraph at Blake.
7. Narrow streets, obstructed by parked vehicles. Many intersections should have no parking near them.
8. I know there is an effort to reduce vegetation around homes. I don't think there is a good plan for evacuation. Though there are supposed evacuation routes, they are not at all adequate
9. Poor infrastructure - electric wires overhead, should be buried; poor quality roads; limited fire hydrants.
10. More prepared fire stations, put utility wires underground, it's ridiculous that that has not been done already
11. Poor evacuation routes
12. Evacuation plans
13. I encourage the City to front-load its efforts in the direction of fuels reduction, since that's the quickest way to mitigate the worst risk. Other important methods, such as Home hardening, will take more time and money.
14. Diablo winds, over 1,000 eucalyptus trees inside the city, many more to the east, steep terrain, and lack of sufficient fuel reduction by UC Berkeley and the City of Berkeley make our city extremely susceptible to catastrophic fire risk. Public entities must clean up the eucalyptus understory on both public and private property ASAP, then remove and replace the eucalyptus trees.
15. Eucalyptus fire ladders will quickly spread a major fire.
16. Vacans and overgrown homes
17. Human activities on Grizzly Peak (no parking signs do not deter if not enforced) and in the LHS parking lot are the biggest danger to hills residents. We do our part in vegetation clearing but illegal activity - just one spark - voids the effort. Police the area, prevent fires. Residents do everything we can to prevent fires but in the end it won't matter. Allocate funds where they can be best used. Police the area! Stop policing the hills home owners for compliance. We are not the ones starting fires.

Comments from Survey 1 as of 1-3-23

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18. Eucalyptus trees on private property, rental properties not maintained, drought prompt fast weed growth
19. Large and tall trees are not maintained. Lightning was responsible for tree fire and explosion around our home.
20. All those Eucalyptus trees in Tilden.
21. Lack of enforcement of no-smoking / no open flame laws for the Berkeley parks in the hills and in Tilden. Lack of parking rules enforcement in the Berkeley hills fire zones. There are cars parked for over a year at a time, cars parking on the sidewalks and many other hazards to emergency access.
22. Lack of enforcement following inspections. Inadequate tree trimming and removal of hazardous and dying trees.
23. Even in the flat land around north Berkeley Bart they are lots of tall redwood. They can be hit by lightning. It's already Helen's twice in this neighborhood. Neighbors love their trees but not really take care of them. Some time they have too many trees on their lot. I think the city needs to control that and make sure it's safe. Those produce a lot of dry leaves and roof and yard. Even in the flat land.
24. Parked cars on both sides of streets block access, evacuation, and firefighting trucks and equipment from responding. Regular occurrence of impassible streets on trash pickup days each week.
25. One word... Tilden. Lovely place. A gem. But EBRPD does ZERO to clear the dead trees along and just below Wildcat Canyon Road
26. BBQs in Public Parks, especially the disposable BBQs people bring.
27. Lots of dangerous trees that can catch fire
28. Properties not maintained by owner or renters or elderly who can't afford or won't hire yard people to clean up. City needs to provide \$ assistance to remove overgrown trees or eucalyptus/pine trees on private property in the hills. Put this on the next election to earmark \$.
29. Too many cars parked in the road in the hills. Too many multi-vehicle families and people not using their driveways. Cars blocking pedestrian access/sidewalks. Large cars especially.
30. Neighbors that refuse to maintain trees and vegetation. Have multiple dead and oversized trees in an urban setting and issues like pine needles covering their roof which is an ignition source. No way to force them to reduce fire risk in the Berkeley flats at this point. We need a way to force homeowners to maintain their property in the flats.
31. No comment
32. Also climate change. We are out of balance, our climate is drier and hotter than usual, and we are in a drought.
33. Poor city planning, which allows development in high fire risk areas (the hills, adjacent to wildlands). Insurance policies which provide insurance to those living in high fire risk areas & allow them to rebuild there.
34. Homeless encampments.
35. mentally ill starting fires, also politically-motivated people coming in and doing the same
36. We live in fire zone 2. Even with fire department visits to homeowners, we have many neighbors who are completely surrounded by overgrown bushes, trees, ivy and walls of bamboo. I also think the city should not allow large trees that overhang streets, potentially falling on our few escape routes. Many walking paths from our house are

Comments from Survey 1 as of 1-3-23

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- tunnels of dense vegetation! The paths and streets need to be the responsibility of the city. We as homeowners have paid thousands of dollars to remove trees, maintain our vegetation and fireproof our house, yet the roads and paths are not safe ways out because of trees and vegetation overgrowth.
37. Our neighborhood in the flats is at low risk. Traditionally wildfires have started at the ridges. Reduce fuel load there and carefully watch during fire weather and have quick response ready. The suggestion that people with mobility problems leave the hill fire areas during extreme risk times is a good one.
 38. Lack of understanding about the different kinds of houses around Berkeley and lack of realistic ideas about implementing fair changes that don't cost the owner more than is reasonable.
 39. Although I'm a tree-lover, I draw the line at eucalyptus in Berkeley. They're a non-native species that is causing serious fires everywhere they've been imported (including Greece and Turkey!).
 40. Lack of action by city officials for a known major issue
 41. Adequate funding/financing to stimulate the prioritization (within family budgets) of major hardening/vegetation projects on private property.
 42. Between College and Claremont. Fire can just come down from hills as did the Oakland fire. I'm a renter. Landlord does not care about overgrowth.
 43. We need more veg management in our residents' hill areas and more veg management in Tilden and Claremont canyon
 44. We have got to chop down all the eucalyptus
 45. Junk and other stuff outside homes. Easily flammable materials outside homes - for example, my neighbor has a wall of "prayer flags" (paper, fabric, plastic) 8 feet high and approx. 40 feet long/wide on and on top a wooden fence. This stuff would ignite a lot faster than trees.
 46. I worry particularly about the large proportion of hills residents who are older and may have limited mobility. In addition, I have heard and read many troubling comments from some of these older hills' dwellers, comments that lead me to believe they don't truly grasp that no one is going to be able to come save them once a fire has already started.
 47. Lack of community awareness of the level of risk.
 48. Anyone have a "hate-my-neighbor" tree/foliage fence at the property line, hills and low land of Berkeley?
 49. There are too many cars parking on the street in wildfire zones. Narrow streets mean slower response times for emergency responders. Please make it harder to park on the street in the hills.
 50. Climate change
 51. Narrow road.
 52. Parking allowed on narrow hill roads making it hard for first responders
 53. The swath that has gone vegetation removal below Wildcat is not nearly wide enough, given the severity of the wildfires we've seen in the last few years. I'd also like to see trees removed in that swath to make a more defensible break.

Q5 What actions have you taken to prepare your family, home, property and community to reduce the risk of wildfire? (check all that apply).

Other = 24 responses

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1. Survey is asking for a comment.
2. Neighborhood is newly approved Firewise group
3. Education to all Berkeley citizens especially homeowners/renters in Zones 1&2
4. Our street is so narrow and has no parking limitations so it remains a hazard in case a fire engine needs to have access to it, there are more cars than there are off street parking spaces.
5. The driveway is too steep. Cannot drive our car into the garage
6. My neighborhood is very low risk; Telegraph at Blake.
7. member of Berkeley Hillside Fire Safety Group
8. pack emergency bag during fire season -scary
9. Helped a neighbor by clearing dried grasses from her property--there's no one to do this because she's elderly & doesn't speak much English. Educational, printed materials in MANY languages should be distributed throughout Berkeley.
10. Organize the community to get the city and university to remove all the hazardous fuel.
11. It's not the neighbors we're worried about. It's the folks that park on Grizzly Peak and LHS that don't care if we go up in flames.
12. Need referrals to contractors qualified to perform home hardened (ember prevention to vents, gutter guards, etc.)
13. removed flammable plants, keep remaining trimmed & watered.
14. Clear my yard and roof from dry leaves.
15. Remove all flammable plants and water existing fire-resistant plants.
16. Wildcat Wasch volunteer
17. Pls provide reputable agencies to hire to harden my home (gutter covers, vent screens, prepare eaves. Offer courses to these companies & certify them so we know which companies know fire rules.
18. Developed a parking restriction proposal for our street and submitted to city (no action yet)
19. I've been a leader in our neighborhood Hillside Fire Safety Group since its founding.
20. I made a documentary film about megafires and have screened it in Berkeley and more than 400 other communities. Wilder than Wild has also been broadcast nationwide.
21. I'm a renter, so much of this I can do nothing about.
22. Neighborhood preparedness group participation
23. packed go bags, informed neighbors about how to pack and prepare, and tried to stay informed about proximity of fires
24. spread information to others in my apartment building (most of the actions on this list only apply to homeowners, which only make up half of the population of Berkeley)
25. Purchased a small camper van that we can park in the flats at a friend's house during red flag warnings
26. It's not reasonable to have people park off street or inside garage when they don't have that as an option and parking on sidewalk to allow fire trucks enough room has been the norm for ages.
27. using very low, dense groundcover plants to choke out weeds that were overgrown, removed all bark chip on landscape
28. Renter has no control
29. DIY home hardening projects in progress.
30. Go kit by the door always and a plan for evacuating in 5, 10, 15 and 20-minute intervals.

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31. my neighborhood has an organized group and we have taken some steps to prepare for emergencies together
32. Extensive emergency kits, go bags, earthquake supply shed. NOTE: we are renter and not able to do DIY projects on the property. Landlord is not too concerned and unwilling to do anything beyond legal requirements.
33. Smoke alarms
34. NOTE: the question says "check all that apply" but the survey tool limits the responses to 3 boxes maximum. So my answers are not accurate for this question. I've actually paid to have eucalyptus removed from neighbor's property (with their approval). In the larger scheme, I shouldn't have to pay. The city should step up and have a comprehensive eucalyptus reduction program.

Q6. In developing Berkeley's Community Wildfire Protection Plan we are exploring a variety of actions to reduce the risk of wildfire to neighborhoods. Which of the following recommendations do you think would be effective for your neighborhood? (check all that apply)

Other = 55 responses

1. On street parking limitations in hills, i.e. efforts to facilitate evacuation
2. Honestly, there are elderly homeowners that aren't keeping up with vegetation or paying for vegetation clean up. They need to be fined.
3. Unsure I don't talk to anyone or receive much information
4. Defensible space must be defined in a reasonable manner since our homes are close together and we all treasure our trees and greenery, which are important for shade and a healthy environment.
5. Red-curb narrow streets
6. Develop an overall plan that is clear to everyone; there seems to be piecemeal efforts with no real oversight
7. Wildfire public awareness days, information kiosks at local events, evacuation route information distribution in Berkeley hills
8. Hazardous brush clearance (goats?), Handrail on Marin
9. Hazardous vegetation removal on all private property
10. Mass Evacuation planning
11. Assistance to seniors, disabled, etc., in landscape maintenance, awareness, etc.: discontinuing construction activities during high-fire-risk days (we had construction workers next door shooting sparks into dry grasses on several days when the bldg next door was being remodeled).
12. Moving overhead power and utility lines underground
13. City funded tree removal or trimming
14. Dedicated city staff for in-person site hardening consultations.
15. Hazardous tree removal on private property by the city. The eucalyptus.
16. Remove dangerous trees on private land.
17. Police the area. Put funds to deter and prevent fires from starting in the first place.
18. Undergrounding power lines
19. UNDERGROUND ELECTRICAL WIRES
20. allow high ignition point plants to remain--McKinney fire had photos of houses burning with Camellias untouched at foundation.

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21. Community efforts to underground electric wires - San Diego has figured out how to get utilities to pay, why can't we!
22. Have the city check all the yard with big trees.
23. Develop a mechanism to remove Eucalyptus Trees. They are like match sticks ready to burn. One idea for people who cannot afford the expense of removal is for the City to pay for tree removal and place a lien on the property to get reimbursed when the home is sold or transfers ownership.
24. Undergrounding utilities: red striping for no parking one side of each street at least in zones 2 and 3 and in evacuation routes; enhanced prep for evac of disabled persons (wheelchair users can't take paths, recommendations for vehicles to park on sidewalks prohibits disabled from evacuating on "fooc").
25. Grants or other financial help for residents to use to clear vegetation and create a defensible perimeter. It is too expensive to hire help with cutting, trimming trees and removing plants. We also need help communicating/negotiating with neighbors, i.e. our neighbor's trees are within 5 feet of our home but not theirs-- who has to pay to remove those?
26. Ban BBQs in public parks
27. Matching grant for hazardous tree removal
28. Continue house to house inspections by Berkeley Fire in Zones 1 & 2 + start enforcing so people know this is serious.
29. People on fixed incomes need financial help to take more extensive actions.
30. Undergrounding power lines
31. City needs to take the lead and not rely on CERT or FireWise groups. Neighbors don't like to pester neighbors. We need the city to strengthen and enforce its defensible space requirements because the majority of folks won't act otherwise.
32. Clearing hazardous vegetation fuel in the hills whether it's located on public or private property.
33. Community education about evacuation routes. Neighborhood meetings identified those who need help to leave their homes in emergencies.
34. Renter education and information to pass onto landlords. Mandatory hardening of renter properties w mandatory assistance by renters.
35. A big part of protecting our communities from wildfire danger is protecting air quality year-round with common sense measures to mitigate the negative health effects of the large amount of smoke and air pollution during fire season. This includes banning very polluting 2-stroke engines (gas leaf blowers, lawn mowers, etc.), rapidly phasing out wood burning fireplaces/stoves with a carrot-and-stick, and reducing the number of cars on the road that can be replaced by bikes or ebikes if everyone felt safe (and actually "were" safe!) biking around Berkeley. These measures would have a huge impact on the negative effect of wildfire season, both in their immediate impact as well as via their long-term mitigation of climate change. Berkeley should be a leader on these important public health and safety policies.
36. define evacuation routes & mark with signage
37. Make sure that all recommendations are in an ecological, systems-based framework. Just reducing vegetation can also change the climate. We need vegetation and we need to manage it in an ecological way that protects life. Please consider consulting

Comments from Survey 1 as of 1-3-23

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- with Occidental Arts & Ecology Center or other experts to ensure we do this with our longer-term future in mind.
38. the city needs to trim dead branches out of street trees
 39. This should be going on all the time, but we also have to deal with the fact that many wildfires come from public utilities not keeping areas clear as well. mental illness and politically-motivated fires started by humans is also not being mentioned on here
 40. City funded tree removal overhanging streets in hills, and city funded removal of vegetation surrounding paths. Both are escape routes
 41. It's not productive to suddenly ask people to make huge changes to their property without funding those requirements. Many houses are right next to others and each home in the hills has different trees and vegetation. You need to come up with a better plan that does not penalize property owners for issues they can't control or for changes that require a financial investment that is extreme—like cutting down trees.
 42. restrict drug camp equipment during high danger weather
 43. Please consider allowing low groundcovers in zone 0. With many houses on a slope, if you only allow dirt or rock that can migrate, it will result in weeds that grow tall right next to houses and defeat the purpose.
 44. City-funded incentive programs to support wildfire-hardening home-retrofit and private vegetation-removal projects.
 45. Fines for landlords who don't keep property fire safe. Annual inspection
 46. Specifically make a militia response illegal to avoid a situation like this: <https://www.nbcnews.com/news/us-news/california-town-militias-help-welcomed-cautioned-others-cna860218>
 47. I checked all the boxes but the form only allows three. I think we need to be doing all of these things!!
 48. State wide ban on all fireworks and severe punishment for those who use illegal fireworks. Should no longer be available or sold in California.
 49. Too many cars in the hills are a real problem. That this isn't even an action on the list of choices is shocking.
 50. Funding for fire prevention measures required by the city.
 51. Underground electrical wires (use Rule 20 funds); widen street
 52. Sensible fire danger assessment
 53. Enforce one side of street parking
 54. NOTE: the question says "check all that apply" but the survey tool limits the responses to 3 boxes maximum. So my answers are not accurate for this question. (1) Require people to remove highly flammable trees (eucalyptus, for example) on their property. (2) during fire season, limit parking on major evacuation routes (Grizzly Peak, for example) and enforce abandoned vehicle parking on all streets within high fire risk areas.
 55. Put electric wires underground

Any Final Comments? 88 responses

1. Fine people for not being compliant or for not being safe!
2. I'm m not even sure my district I've contacted d1 and d2 and been both confirmed and denied I am a part of either

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3. Extend chipping program to include Thousand Oaks neighborhood between Colusa and Arlington.
4. No but thanks.
5. Create traffic control plan for evacuation of hill residents
6. Thank you for taking this issue so seriously!
7. Berkeley's wildfire preparations are haphazard at best. Needs to be an ongoing program.
8. It is important to get rid of dead vegetation near homes, but not to destroy all greenery in our yards and along our streets.
9. Our homes are too close together in the hills. Before we are forced to spend \$\$ removing vegetation, underground the power lines that are the biggest threat to our community.
10. I don't think residents of Zone 1 should have to subsidize the fire prevention costs for the richer residents of Zones 2 and 3. They should buy their own insurance and shoulder the costs.
11. I would like recommendations from the city on how to create more defensible home. Also if you do inspections on homes and give us a list of items to be completed. Please mandate removal of dried out trees and limit the height and size of redwood trees on private properties. If my neighbor's redwood tree explodes due to a wild fire, it makes my home much more vulnerable
12. keep up the important work
13. No thank you...;-)
14. map needs a better key
15. It would help if there were, we would know about, fire watch efforts during high-risk times and how exactly to proceed if there were a nearby fire.
16. Thanks for doing this. I really think we need to be better prepared.
17. I became trained last summer as FFT2 and work in fuel reduction. I'm willing to help.
18. Please: fix roads, underground utilities, reduce fuel especially eucalyptus and podocarpus and Pittosporum
19. I think the risk of wildfire in my immediate neighborhood is relatively small. BUT there have been at least 3 house fires in our area with the past 12 months. Also, I support reducing risks for Berkeley's Zone 3 areas
20. We need to work on our streets and evacuation.
21. I don't know who in the city is interested in maintaining Berkeley's mass evacuation planning in case of fire.
22. Construction enforcement seems to need A LOT of improvement--it's difficult to even find who to notify on the website, calling 311 doesn't really work ("we need a photo"), and there are A LOT of fire-producing activities during construction projects in the residential neighborhoods.
23. None
24. Thanks for the survey!
25. My area almost burned in 1923 so it is vulnerable. I think the major problem is one house catching fire that spreads to neighboring houses
26. Berkeley needs a department dedicated to just wildfire risk reduction. If it takes an assessment added to tax on properties in the WUI to fund this, then do it. I strongly believe there should be experts on staff who can meet residents on site to answer questions and provide advice. Fire department inspections are nearly useless because

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- they don't have adequate staffing or time to inspect the extensive area of hills neighborhoods and they only see what's visible from the street. This is totally inadequate.
27. More coordination with East Bay Regional re Tilden and Claremont Canyon and UCB to reduce vegetation load and remove trees and more defensible space in the No Berkeley Hills and near Claremont and strawberry canyon
 28. Please encourage the City to support residents' efforts to reduce fuels, especially blue gum eucalyptus. That species is widely understood to be the worst in terms of fire risk. Such support should include financial subsidies especially for low income residents.
 29. The eucalyptus species is "The Elephant in the Room." We must acknowledge the science that it is far and away the most dangerous species and remove it. Everyone will be far safer.
 30. We need to city to help neighborhoods organize and develop a plan to help each other prepare
 31. Why haven't the eucalyptus been cleaned up on Berkeley property/parks!
 32. Vacant home tax would also over time benefit fire preparedness and prevention. Every block around us has 1 vacant home which is overgrown and very cluttered, putting neighbors at risk
 33. Enough said. I'm sad to see my tax dollars not helping.
 34. Vegetation varies greatly in flammability. Please educate yourselves and the public on choosing proper plants (i.e. ceanothus vs eucalyptus), rather than promoting blanket vegetation removals. See https://www.laspilatas.com/classes/fire_burn_times.html for more information.
 35. Did not receive info on the 8/3/22 Zoom meeting. Please add me to your email list for upcoming Zoom events
 36. Please inspect large/tall trees in the flatland to insure it's been properly maintained.
 37. The overhead electrical wires are a serious hazard. They not only go through trees, but also can come down in windy weather or during quakes. We need to move from 19th century to 21st century tech
 38. We would lose privacy, shade, and our cherished garden if we were forced to remove plants within 5' of house.
 39. It's important to recognize that mature trees can help retain moisture and prevent fires - I am concerned that Berkeley will start taking out lots of mature trees that provide shade and moisture for our neighborhoods. This, I hope Berkeley will involve environmental scientists in this effort.
 40. Don't require removal of pruned & watered fire-resistant plants around our homes!!!
 41. Please decrease street parking in the hills to make them passable.
 42. I appreciate what Berkeley is doing to inform residents about fire prevention and evacuation. Let's don't forget reminders about earthquake preparedness and evacuation.
 43. City has got to institute 1-side only street parking. Citizens simply and tragically will not get out.
 44. Now that you have created fancy report and cutting edge ARC/GIS product, why not start spending on concrete fire prevention projects in the neighborhoods? We need a cooperative access to tree trimming and removal, or we will not do the work. Unaffordable now. Why not build a voucher program for tree removal and let us pay it back in installments on our parcel tax!

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45. Parking on red flag days is a major issue- need to enforce use of driveways and single side parking. Under grounding wires would obviously reduce risk as well. All Eucalyptus groves should be cut in Tilden.
46. The single greatest improvement in fire safety would be a massive fuel reduction program in the WUI- specifically Tilden Park, EBMUD, and UC open spaces.
47. Evaluate how Evacuation warnings are determined. In 2020 there were so many warnings to evacuate my neighbors considered them White Noise because no fire occurred.
48. The entire thing is overwhelming. How will I pay for it all?
49. Most parts of Berkeley are not the kind of rural, dry, unmaintained landscape where wildfires pose the greatest concern. Houses are close together, gardens are well-watered, and the fire department is competent and never far away. Here, clearing 5ft around every house would turn the city into a barren desert and ruin one of it's better assets: it doesn't make sense to apply strategies designed for places like Paradise or rural Sonoma County to an urban area like Berkeley.
50. We are right on the border of Zone 1 and 2; on the state map we are in Zone 1
51. Would love to see more tree and vegetation removal projects in the Berkeley Hills and Tilden Park.
52. I am not aware of available CERT trainings for wildfire. I've completed more earthquake-centered trainings. We need wildfire-centered trainings and speakers available for neighborhood CERT events to educate around city-enforced veg management and home hardening requirements.
53. We need to make sure that politics don't interfere with public safety by moving forward right away to clear hazardous vegetation in the hills, whether this vegetation fuel load is located on public or private property.
54. Susan Wengraf has proposed a community screening of Wilder than Wild in a Berkeley park. I would be glad to work with her in assembling a panel of speakers and helping with public discussion about wildfires.
55. Over past couple of years I have attended meetings hosted by Wengraf/Hahn with different folks from Fire/Police, but still am confused as to how to learn about evacuation routes in emergency situation.
56. Yes as I mentioned there needs to be hardening of rental properties. This should be mandatory. Such hardening of properties should be required of both renters and landlords so both groups have to work together collectively to protect their properties and homes.
57. I didn't see this anywhere in the survey, but I'm wondering if there's any effort (perhaps in conjunction with EBRPD) to get rid of the Eucalyptus trees throughout Berkeley and Tilden. A more holistic approach that includes restoration and community participation would be amazing.
58. The lack of declared & enforced evacuation routes is irresponsible.
59. My neighbor says "I have insurance I don't care if my house burns down". It would be great if there was a way to counter this narrative. Appealing to this particular person to be a good neighbor doesn't work. There needs to be a way to exert force of some kind to force them to do the right thing.

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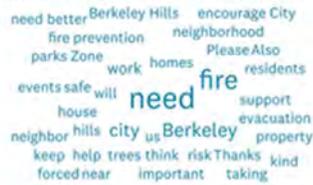
60. Please take climate disruption seriously. If our city truly took it seriously, and moved toward just, regenerative, ecologically based solutions we could care for each other and our ecosystems for the long term.
61. Thanks for asking for my opinion!
62. Thank you. I got bring proactive. As a public school teacher I always worked on fire safety and evacuation and emergency plans in October.
63. more talk about dangers of wildfire smoke inhalation as well, please! I was safe in my home from flames but still passed out for four hours when we went into the purple zone a couple summers ago!
64. Please remove trees that overhang the streets that are our escape routes. Please remove vegetation that overhangs and surrounds the paths, if we are told to escape on foot using the paths!
65. I would appreciate a better understanding of how we are going to get everyone out of the Berkeley Hills in the event of a fire. Will Marin become a two lane one-way road downhill?
66. It seems obvious what needs to be done. Stop wasting our money and pave our streets instead.
67. I do think this is a great effort. But I worry that the eagerness to make a fire safe city will rob this city of its trees and demand a compliance that is not realistic for a short term goal. This is a long-term problem and you all need to think of it that way. Slow change and goals works better. Example: why don't you offer the debris bins year round? Why don't you give out those paper debris bags? I love living in Berkeley and am happy to make the effort to improve the preparedness of my property. But you need to be realistic. There are all kinds of homes here. Many that are neck in neck with others. Many that have trees that provide important shade as the temperatures are rising. One size fits all does not fit in this town. It never has.
68. Glad we're doing this!
69. Thanks for all your work on this vital issue!
70. survey tool reported error ?! This question requires you check up to 3 boxes maximum." for question with "Check all that apply" instructions.
71. For zone 0 around houses: Please allow low groundcovers and/or plants < 12 inches tall that are fire resistant in order to choke out weeds!
72. Three additional comments: (1) My family lives in Zone 1 in District 5 but right near the Colusa Ave. dividing line with Zone 2. Private-property conditions, on-street car-parking practices, and the general landscape and neighborhood/street development patterns uphill of us make me nervous that Berkeley FD might not be able to stop significant wildland-urban fires at Colusa Ave. (2) I would encourage the City to explore a real-estate-transfer-tax-funded program for incentivizing wildfire-hardening home-retrofit and private vegetation-removal projects, like the existing program for seismic-strengthening home-retrofits projects. Could this be done equitably? (3) It was frustrating that this survey form only allowed one to select a maximum of 3 items in reply to question #6 above. I would have selected more things there if I had been allowed, as your prompt text indicated should have been possible: "(check all that apply)."
73. Please inspect rental buildings for brush, gutter, and general upkeep

Comments from Survey 1 as of 1-3-23

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74. An equitable plan must be a key consideration. Furthermore, there needs to be specific language about excluding militias in a disaster response, which will only heighten fears and hamper residents from accessing needed services.
75. More coordination with east bay parks Tilden and Claremont canyon and management in the hills
76. Need money for homeowners to professionally remove vegetation and replace with alternatives
77. financial assistance (or free service) for very low income homeowners for some simple fireproofing measures like closing gaps on house, screening of vents, etc., and maybe hiring and training a crew that can provide some basic services, especially for seniors/low income.
78. The UC needs to get those spindly eucalyptus matchsticks out of Strawberry Canyon and we need more eucalyptus removal in Tilden.
79. I truly think we need to be doing all of the actions listed in question number 6 -- if you're asking me to pick the top three, you need to say that in the instructions, but also, I can't pick just three!! Also the map you link to in question 7 is confusing because it overlays the city's zones with the state's. I already know I'm in zone 2 but for someone who doesn't know their zone, I think the map at this link on the city's website is clearer: <https://berkeleyca.gov/sites/default/files/2022-04/Berkeley-Fire-Zone-Map.pdf>
80. you aren't policing Grizzly Peak or Tilden. You aren't doing anything about cars pulled off to side in Grizzly Peak...the barriers did nothing...this is the highest risk to the Hills, we had a firestarter a couple years ago starting fires just off Grizzly
81. Thanks for helping to keep our city safe!
82. Please improve bus service to the hills so that more people can use their cars less. We cannot tackle this problem effectively without reducing driving.
83. Efforts at fire prevention by those of us living in the high-fire-danger zones will benefit all of Berkeley by keeping fires from igniting and moving down the hill, potentially to the Marina. Therefore, I feel the city should cover the costs of the fire-prevention measures we undertake.
84. I strongly encourage the City to continue messaging before fire season begins (Mar, April) and to continue to fund and encourage more civic engagement through CERT trainings. Promote participation as a great way to support neighbors, promote mutual aid, encourage collaboration.
85. Lower risk here in the flats, but you never know, so want to be ready!
86. All burden placed on homeowners adding costs to already prohibitive place to live for middle class families. Risks seem exaggerated. Zone 2 is way too large. City should assist with the cost of fire prevention.
87. City should work to underground utilities.
88. (1) Underground the power lines along Wildcat, Grizzly, and within the high fire zone areas. (2) We listened to a fire chief give a talk to our neighborhood group a couple of years ago. I was honestly SHOCKED that the line of defense for a wildfire originating in Tilden is SHATTUCK AVENUE. That means the entire hillside worth of homes is lost. Are you kidding me! We need to do better. Give the firefighters more equipment. Set up more remote observation stations. Do more/better predictive fire modeling.

Word Cloud of top 37 words from Final Comments



B. Survey 2

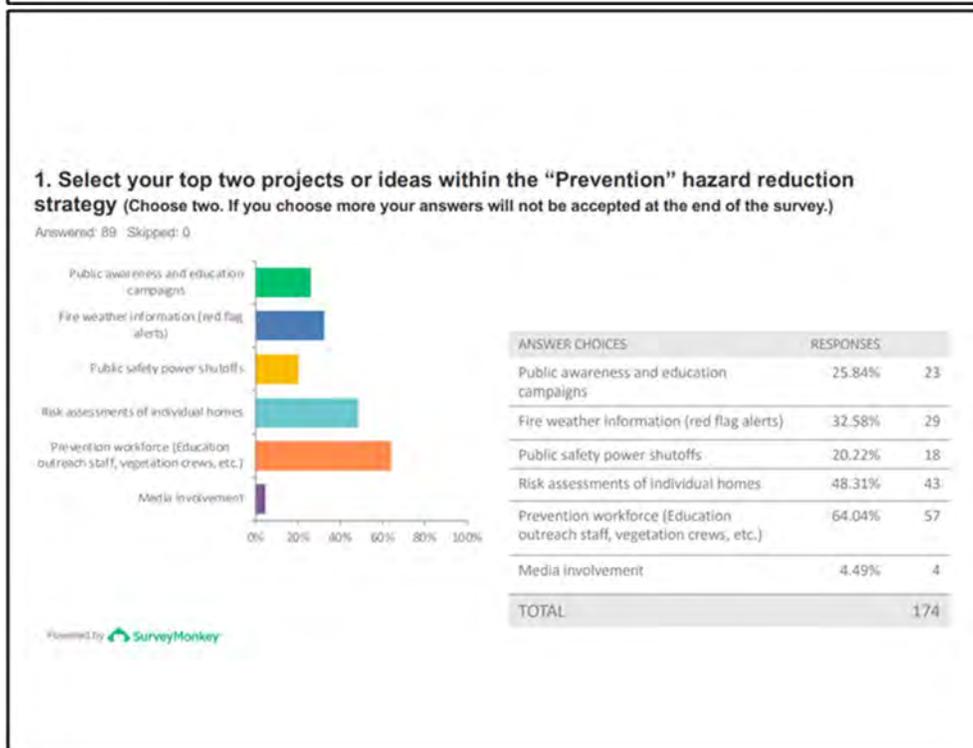
89
Total Responses

Date Created: Wednesday, September 07, 2022
Survey Closed: Tuesday January 3, 2023

Berkeley CWPP 2022 - Survey 2

NOTE: This survey is part of a series of engagement and educational tools to facilitate communication during the development of the Berkeley Community Wildfire Protection Plan. The following results were not intended to be scientific or statistically valid, and should not be assumed to reliably reflect the opinions of all Berkeley residents.

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2. Select your top three projects or ideas within the "Regulations, policy and plans" hazard reduction strategy. (Choose three. If you choose more your answers will not be accepted at the end of the survey.)

Answered: 89 Skipped: 0

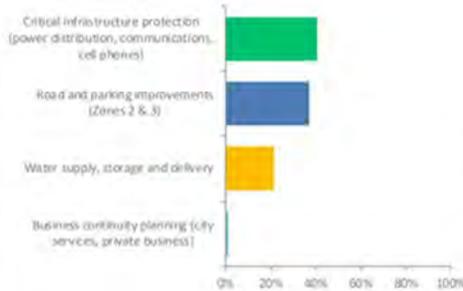


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ANSWER CHOICES	RESPONSES
Community planning document updates (e.g. Community Wildfire Protection Plan, Local Hazard Mitigation Plan, Safety Element and others)	25.84% 23
Defensible space inspections of private properties and enforcement	55.06% 49
Codes and ordinances (new construction requirements, retrofit, and other development standards)	40.45% 36
Spatial fire planning (site specific mapping, additional zoning restrictions for Zones 1, 2, and 3, project planning)	37.08% 33
Closures and public use restrictions during high fire danger weather	41.57% 37
Funding for neighborhood led projects	33.71% 30
Program to improve insurance affordability and availability (e.g. incentives for defensible space and home hardening)	44.94% 40
TOTAL	248

3. Select your top project or idea within the "Infrastructure & Business" hazard reduction strategy (choose one).

Answered: 89 Skipped: 0

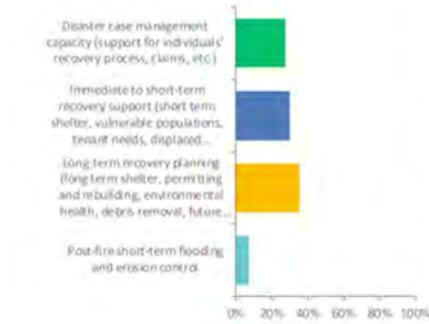


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ANSWER CHOICES	RESPONSES
Critical infrastructure protection (power distribution, communications, cell phones)	40.45% 36
Road and parking improvements (Zones 2 & 3)	37.08% 33
Water supply, storage and delivery	21.35% 19
Business continuity planning (city services, private business)	1.12% 1
TOTAL	89

4. Select your top project or idea within the "Recovery" hazard reduction strategy (choose one).

Answered: 87 Skipped: 2

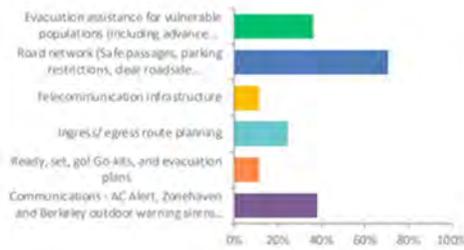


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ANSWER CHOICES	RESPONSES
Disaster case management capacity (support for individuals' recovery process, claims, etc.)	27.59% 24
Immediate to short-term recovery support (short term shelter, vulnerable populations, tenant needs, displaced workers, language barriers)	29.89% 26
Long-term recovery planning (long term shelter, permitting and rebuilding, environmental health, debris removal, future mitigation)	35.63% 31
Post-fire short-term flooding and erosion control	6.90% 6
TOTAL	87

5. Select your top two focus areas, projects or ideas within the "Safety and Evacuation" hazard reduction strategy (choose two).

Answered: 89 Skipped: 0

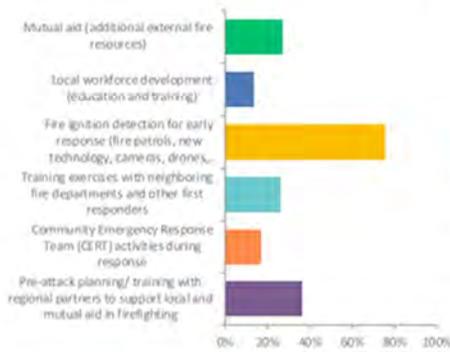


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ANSWER CHOICES	RESPONSES
Evacuation assistance for vulnerable populations (including advance evacuations)	35.96% 32
Road network (Safe passages, parking restrictions, clear roadside obstructions)	70.79% 63
Telecommunication infrastructure	11.24% 10
Ingress/ egress route planning	24.72% 22
Ready, set, go! Go-kits, and evacuation plans	11.24% 10
Communications - AC Alert, Zonehaven and Berkeley outdoor warning sirens evacuation alerting systems	38.20% 34
TOTAL	171

6. Select your top two projects or ideas within the "Wildfire response" hazard reduction strategy (choose two).

Answered: 89 Skipped: 0

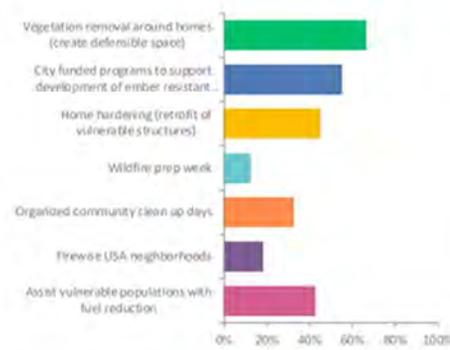


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ANSWER CHOICES	RESPONSES
Mutual aid (additional external fire resources)	26.97% 24
Local workforce development (education and training)	13.48% 12
Fire ignition detection for early response (fire patrols, new technology, cameras, drones, satellites, etc.)	75.28% 67
Training exercises with neighboring fire departments and other first responders	25.84% 23
Community Emergency Response Team (CERT) activities during response	16.85% 15
Pre-attack planning/ training with regional partners to support local and mutual aid in firefighting	35.96% 32
TOTAL	173

7. Select your top three projects or ideas within the "Resident mitigation" hazard reduction strategy (choose three).

Answered: 89 Skipped: 0

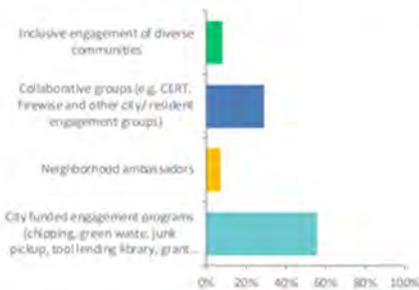


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ANSWER CHOICES	RESPONSES
Vegetation removal around homes (create defensible space)	66.29% 59
City funded programs to support development of ember resistant "Zone 0" to comply with new requirement for all homes.	55.06% 49
Home hardening (retrofit of vulnerable structures)	44.94% 40
Wildfire prep week	12.36% 11
Organized community clean up days	32.58% 29
Firewise USA neighborhoods	17.58% 16
Assist vulnerable populations with fuel reduction	42.70% 38
TOTAL	242

8. Select your top project or idea within the “Partnerships and community engagement” hazard reduction strategy (choose one)

Answered: 86 Skipped: 3

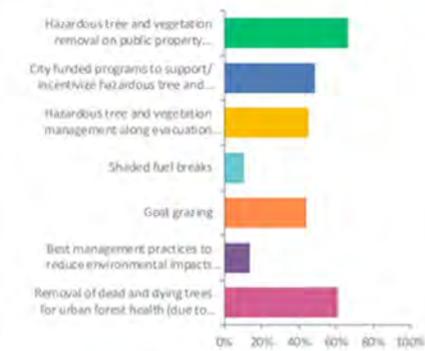


ANSWER CHOICES	RESPONSES
Inclusive engagement of diverse communities	8.14% 7
Collaborative groups (e.g. CERT, Firewise and other city/ resident engagement groups)	29.07% 25
Neighborhood ambassadors	6.98% 6
City funded engagement programs (chipping, green waste, junk pickup, tool lending library, grant writing assistance, special needs assistance program)	55.81% 48
TOTAL	86

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9. Select your top three projects or ideas within the “Landscape treatments (large scale vegetation management)” hazard reduction strategy (choose three).

Answered: 89 Skipped: 0

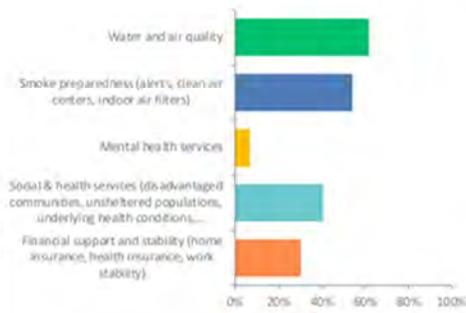


ANSWER CHOICES	RESPONSES
Hazardous tree and vegetation removal on public property (e.g. parks and roadsides).	66.29% 59
City funded programs to support/ incentivize hazardous tree and vegetation management within 100' of a home in compliance with state and city regulations	48.31% 43
Hazardous tree and vegetation management along evacuation routes (Safe Passages)	44.94% 40
Shaded fuel breaks	10.11% 9
Goat grazing	43.82% 39
Best management practices to reduce environmental impacts during hazardous tree and vegetation management	13.48% 12
Removal of dead and dying trees for urban forest health (due to climate change, disease, drought, age)	60.67% 54
TOTAL	256

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10. Select your top two projects or ideas within the "Public health" hazard reduction strategy (choose two).

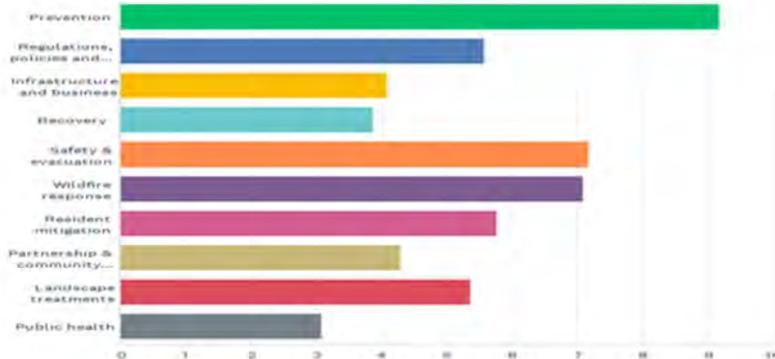
Answered: 89 Skipped: 0



ANSWER CHOICES	RESPONSES
Water and air quality	61.80% 55
Smoke preparedness (alerts, clean air centers, indoor air filters)	53.93% 48
Mental health services	6.74% 6
Social & health services (disadvantaged communities, unsheltered populations, underlying health conditions, outdoor workers)	40.45% 36
Financial support and stability (home insurance, health insurance, work stability)	30.34% 27
TOTAL	172

10. Rank the groups of potential hazard reduction strategies (1= favorite to 10 = least favorite).

Answered: 87 Skipped: 2

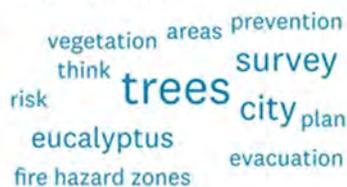


Final comments provided on Survey 2 – 28 responses survey closed 1/3/23

1. I don't think I know enough, or am expert enough, to answer these questions. Leave this kind of decision-making to experts!
2. Why does the state make all statewide ADU setbacks 4', but then fire hazard zone 0 clearance is 5.' Why don't these departments talk to each other? Shouldn't residential setbacks in Califire highest fire hazard zones get residential setbacks automatically made 5'? All decks, railings, fences in high fire hazard zones should be mandatory NOT wood or flammable materials.
3. No removal of well-watered & pruned, high ignition point plants! Privacy, cooling, wildfire all call for this!
4. Focus on projects that actually reduce fires and impacts - dead vegetation, impediments to evacuation and firefighting. Too much money wasted on "talking" about this. We know the problems - start remediation!
5. No—but good, thought-provoking, and -eliciting, survey! Now I'm going out to chop and sweep up, legally and appropriately!
6. Survey was a bit too complicated but thanks for doing this.
7. stop mere talking - get into action already
8. Underground utilities along evacuation routes extremely important. We are all very concerned with state of Tilden Park, even if we denuded Berkeley & hardened every home, we are at the mercy of conditions there. Finally, the City should identify and build shelter areas where possible for people to use in worst case scenarios as is being done elsewhere.
9. Some of the terms in this survey are not defined, so voting for them was not possible to do in an informed way. Example: resident mitigation means what???
10. Defensible space requirements must be reasonable to preserve trees and greenery which are critical to environmental health.
11. Far more attention should be given to prevention, in the form of reducing fire-prone vegetation (eucalyptus and juniper, for example) both within the city and in public wildlands east of the city.
12. R2 is too large - these areas are not equally at risk and should not have the same mitigation requirements
13. Greatest hazard is eucalyptus. We need a plan to remove them all, even from private property
14. Residents of Zone 1 should not subsidize the fire risk of the richer residents in Zone 2 and 3. Please throw away my other responses, the survey forced me to check some boxes but I don't support funding any of these programs.
15. Please allow for weed-suppressing vegetation in zone 0-- rocks migrate and tan bark is flammable.
16. What can we learn and implement from the area's Native people?
17. Not a great survey, don't know what I'm choosing
18. Undergrounding powerlines isn't even on this survey and is the best mitigation/prevention one can do in high-risk areas.
19. This list was very difficult to rate.
20. Fuel load reduction is the most important action item.
21. These categories don't make that much sense to me. Prevention should have crews on lookout during high danger periods. There needs to be some structured plan to keep evacuation from being chaotic. I don't see that in the plans; too many categories too little clarity.
22. Reduce fire hazards on public and private property. Keep shade and cool urban and wildlife interface cool. Stop PG&E from cutting trees to accommodate utility wires and instead save trees

- (except eucalyptus) and underground utilities or at least move wires and poles instead of destroy tree canopies with poor tree cutting measures.
23. I think it's important to do everything we can to reduce the likelihood of a fire starting, and if it does, detect and respond to it as fast as humanly possible, with sufficient resources to prevent it from becoming a disaster. Escalate rapidly and with more resources than might be deemed necessary at first. Those extra resources could be thought of as the payment on an insurance policy: not strictly needed, and seen by some as unnecessary expense. But avoiding a disaster far outweighs the cost of the "unnecessary" extra resources.
 24. I think the two top priorities should be 1) assisting low-income residents to mitigate risk everywhere in the city and 2) enforce risk mitigation requirements in Fire Hazard Severity zones 3 and 2
 25. Evacuation plans in cities must be maintained.
 26. Please focus on preventing the spread of wildfire by starting with reduction and removal of hazardous vegetation in the hills.
 27. Many of these questions are overlapping, not categorized clearly, or otherwise unclear. (For example, Q10, "landscape treatments" is part of "prevention".
 28. I appreciate the stepped-up efforts to remove Eucalyptus and other trees on the park side of Wildcat Canyon Road that could catch fire and spew embers into the neighborhoods. But on the residential side of that street, MANY tall Eucalyptus trees stand on private property. I'd like to see the City actively enable removal of these trees by providing financial assistance to property owners, lining up qualified contractors to do the work, and scheduling it efficiently along that corridor.

Word Cloud of top 12 words from Final Comments



C. Survey 3

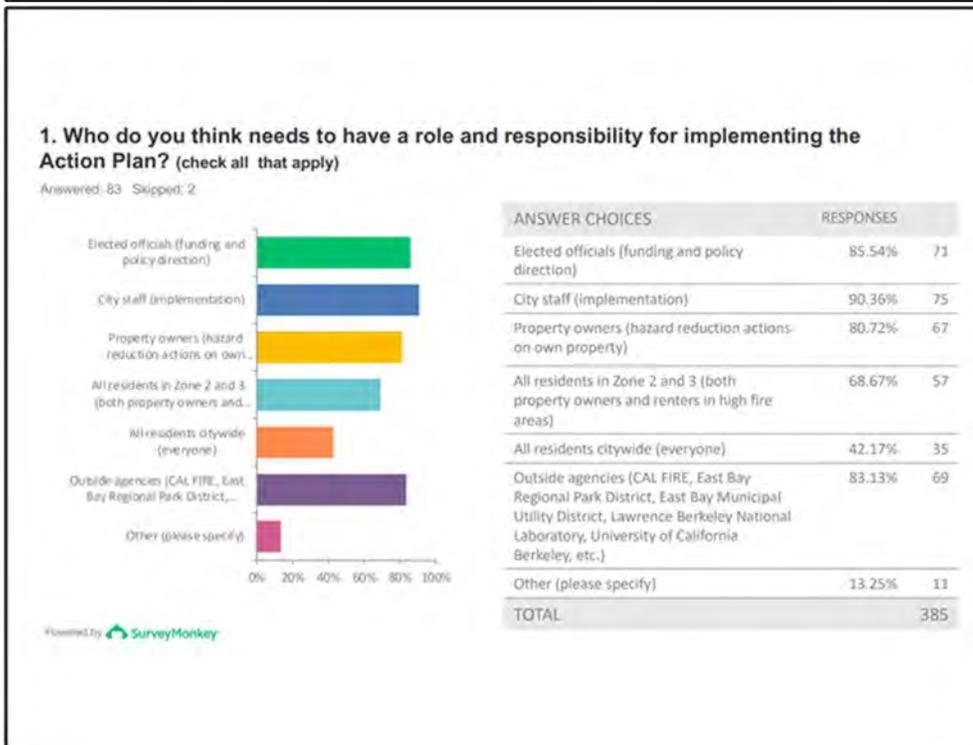
85
Total Responses

Date Created: Monday, November 14, 2022
Survey Closed: Tuesday January 3, 2023

Berkeley CWPP 2022 - Survey 3

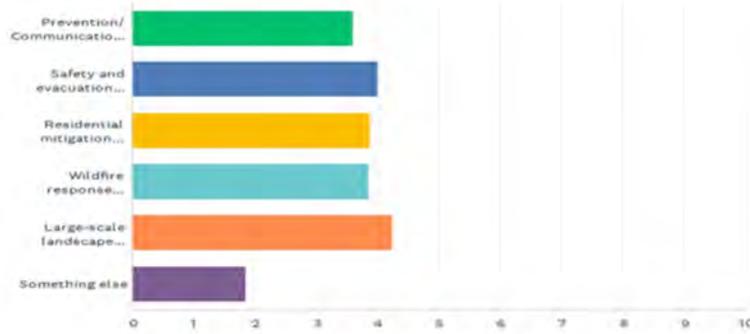
NOTE: This survey is part of a series of engagement and educational tools to facilitate communication during the development of the Berkeley Community Wildfire Protection Plan. The following results were not intended to be scientific or statistically valid, and should not be assumed to reliably reflect the opinions of all Berkeley residents.

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2: Rank the order you think the strategies should be addressed in the Action Plan (1= first to 6 = last).

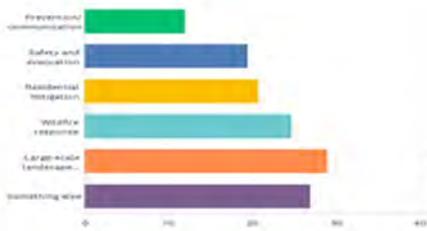
Answered: 84 Skipped: 1



Powered by SurveyMonkey

3. What percentage of available funding (Measure FF, grants, etc.) should be use for each of the strategies? (Your answers should add up to 100%).

Answered: 72 Skipped: 13



ANSWER CHOICES	AVERAGE NUMBER	TOTAL NUMBER	RESPONSES
Prevention/ communication	12	762	63
Safety and evacuation	19	1,278	83
Residential mitigation	21	1,370	66
Wildfire response	25	1,655	61
Large-scale landscape treatments	29	1,915	66
Something else	27	279	10
Total Respondents:	72		

Powered by SurveyMonkey

4: What do you think of the CWPP planning process. On a scale of 1 to 5 how hard were the project documents to understand? (1=hard to 5=easy)

Answered: 71 Skipped: 14

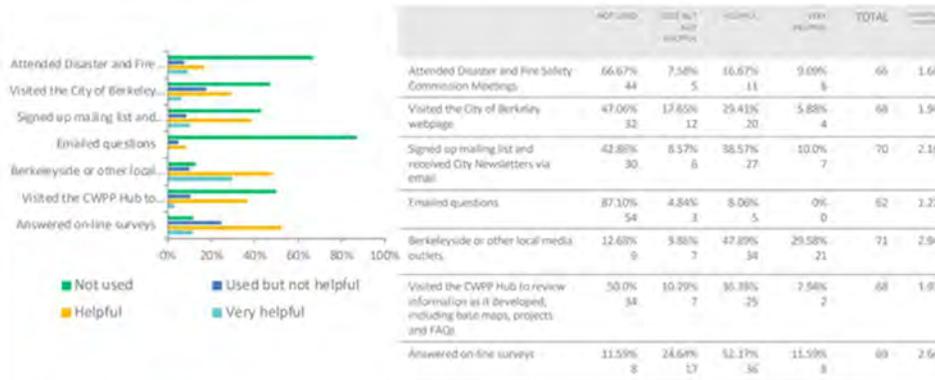


	1	2	3	4	5	TOTAL	WEIGHTED AVERAGE
★	8.45%	9.86%	56.34%	18.31%	7.04%	71	3.06
	6	7	40	13	5		

Powered by SurveyMonkey

5. How did you get information about the planning process and provide input to the CWPP? Which sources were most helpful? (check all that apply)

Answered: 73 Skipped: 12



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Comments provided on individual questions in Survey 3

85 responses survey closed 1/3/23

1. Who do you think needs to have a role and responsibility for implementing the Action Plan?

Other Comments (11 comments)

1. Underground utilities
2. Regional police and rangers. Public education groups. People still use charcoal in Tilden on even on high-risk days, fireworks still launched off Grizzly Peak all summer, an occasional cigarette butts on the ground.
3. PG&E to underground utilities particularly along evacuation routes, East Bay Regional Parks District to truly address Tilden Park.
4. PG&E to underground biggest danger of power lines
5. The Neighborhood Emergency Preparedness Groups, the BDPNN, the Firewise Groups, should all be actively engaged in this process.
6. Keep the elected officials out
7. Insurance Companies
8. USGS for their predictions of 50,000 homes on fire after a 7.0 quake on the Hayward fault.
9. PG&E as their equipment is the major fire risk
10. Dedicated city positions for implementing prevention, evacuation, shelter, support -otherwise responsibility gets slippery
11. State agencies

2. Rank the order you think the strategies should be addressed in the Action Plan

Something else (14 comments)

1. Needs more emphasis on quicker detection of fires
2. Underground utilities
3. Parking enforcement
4. Firework enforcement
5. Remove non-native eucalyptus
6. Understand that removing well-watered & pruned high-ignition point plants does not lessen wildfire risk. But it does reduce privacy/wildlife habitat/shade & increases global warming.
7. I think the first 3 are all #1. Shouldn't have to choose.
8. There needs to be consideration of other aspects in the CWPP plan including aesthetics, green space and healthy activities, and shade for cooling. The program has swung too far to an extreme of fire mitigation at all costs. There are other factors that need to be considered in balance. Obviously, fire prevention is important but living in a concrete jungle is also not reasonable nor desirable. It can't be ALL about fire.
9. PG&E to underground the power lines as the biggest threat to our community from fire
10. City should not be funding things on individual property; home owner should manage. If they cannot, they should sell and move. Why aren't there options under residential and large scale that don't include city funding for mitigation. Provide a multi-year implementation if needed.
11. Need to have a program to remove the eucalyptus, even on private property.
12. The City of Berkeley needs to do more NOW to clear trees and vegetation around and over all Berkeley Paths, so they can become safe evacuation routes. Right now they are tunnels of

Comments from Survey 3 as of 1-3-23

Page 1 of 3

- vegetation and falling tree limbs = inferno. With very little possibility of escaping once you've started down a path!
13. Computer modeling of traffic if all East Bay residents attempt to flee earthquake induced fires on the Hayward Fault.
 14. undergrounding powerlines in high-risk areas

3. What percentage of available funding (Measure FF, grants, etc.) should be use for each of the strategies?

Something else (10 responses with following % for something else)

- 0% = 3
- 5% = 2
- 10% = 2
- 40% = 1
- 100% = 2

7. Any final comments or ideas not captured in the three surveys?

(24 comments)

1. Needs more emphasis on quicker detection of fires, particularly those that start in homes. Needs some attention to undergrounding of egress routes, and quake caused utility breaks.
2. Measure FF is a citywide measure. It should not be totally diverted to the needs of the hills. It was described in the voter language as supporting fire services, emergency response, 9-1-1 communication, hazard mitigation and wildfire prevention.
3. No
4. Parking enforcement should be prioritized 24/7 with 10x the focus it has now in fire zones
5. Please extend chipping program to Thousand Oaks neighborhood between Arlington and Colusa! Thanks.
6. There is a huge cost to removing well-cared for gardens, including increased global warming, lack of privacy and removal of wildlife habitat. Spain is planting Camellias to fight wildfires. Why doesn't California follow suit instead of requiring their removal?
7. Consider linking to your planning documents in your surveys! I have been trying to get more info about this process for months and have only found random pieces of information on BerkeleySide and Twitter
8. Some questions confusing re what is being asked
9. The answers I provided were more guesses than truly informed responses. Even as a member of the DFSC I feel like there is both too much information to assimilate and too little information to provide reasoned responses. I do not think that the CWPP should be run by popular opinion for that reason. (Address popular opinion, agreed. However, from the DFSC meeting last night there are still a lot of people in Berkeley that believe that the wildfire risk will be eliminated if we just cut down all of the eucalyptus trees. A point negated by one of the films you have on the website, and negated in my view by years of personal experience.
10. Everything seems too vague in description within the survey format. Also very hard to access past community meetings on City's website. Many neighbors have no idea what is happening, what's being decided, and are frightened the City expects people to undertake huge projects when both impossible to finance or find decent honest contractors (many scammers or no calls back). Meanwhile people talk a lot about the awful shape Tilden is in and that no matter what we do, we are doomed if it's not cleaned up. There is also a fear that the cities aren't working closely together enough, pooling resources, communicating at bureaucratic levels even if fire

Comments from Survey 3 as of 1-3-23

Page 2 of 3

departments have mutual aid agreements (example of Grizzly Peak Road). And finally we are all upset that PG&E has no under-grounding plans for the East Bay; not only to prevent fires but to protect evacuation routes. The City must act more aggressively on our behalf.

11. Repeating my comment above: There needs to be consideration of other aspects in the CWPP plan including aesthetics, green space and healthy activities, and shade for cooling. The program has swung too far to an extreme of fire mitigation at all costs. There are other factors that need to be considered in balance. Obviously, fire prevention is important but living in a concrete jungle is also not reasonable nor desirable. It can't be ALL about fire.
12. I hope that the final plan will include a list of fire-prone and fire-resistant plants, and a recommendation for which (and in what circumstances) they should be targets for removal. For example, it could endorse FIREsafe Marin's recommendations (e.g. that junipers be removed within 100' or structures and 10' (minimum) of roadways and driveways. Period.)
13. Survey outreach to residents was poor.
14. stop burdening homeowners with cost of cities wildfire protection
15. The hardest part of mobilizing residents will be getting them to understand their plants are a real & present danger to their homes and their lives. One of my neighbors wants to believe that green plants can't burn.
16. I found next door neighbors working together helped convince the reluctant neighbor to understand the importance of this
17. Haven't read CWPP materials yet, but very concerned about fire safety.
18. Parking should be a serious focus, despite the howls of protest that will ensue. Most streets in the hills have too many cars on them, making them unsafe for any emergency, not just fires.
19. Need to have a program to remove the eucalyptus, even on private property.
20. Get going with cutting down Berkeley's eucalyptus trees = proven results!
21. Have been asking for "years" that City officials and staff use their resources to model and address the \$0.000 post-quake fires the USGS predicts. Nothing yet.
22. Berkeley has spent enormous amount of money on studies rather than actions. The time for studies is long past and an enormous waste of tax payer dollars. Time to actually DO something!
23. Who is in charge of making sure fire evacuation and disaster routes are clear and usable? the city is narrowing the routes.
24. Pls use an evidence-based approach and not a public sentiment approach. You are the professionals. Thank you.

Word cloud of top 10 words from final comments

s neighbors
plan fire City
plants fire Needs
wildfire will routes

Appendix B: General Plan Excerpt

General Plan S-23 Disaster Preparedness and Safety Element, Adopted April 23, 2002

Fire Hazards

Policy S-21 Fire Preventive Design Standards

Develop and enforce construction and design standards that ensure new structures incorporate appropriate fire prevention features and meet current fire safety standards.

Actions:

- A. Strengthen performance review and code enforcement programs.
- B. Promote the installation of built-in fire extinguishing systems and early warning fire alarm systems.
- C. Maintain City standards for minimum width and vertical clearance, and ensure that new driveways and roadways meet minimum standards of the Uniform Fire Code or subsequent standards adopted by the City.
- D. Provide adequate water for fire suppression for new development in accordance with City standards for minimum volume and duration of flow.
- E. Establish criteria for the installation of gas shutoff valves in new and existing construction, to reduce the risk of post-earthquake fires.

Policy S-22 Fire Fighting Infrastructure

Reduce fire hazard risks in existing developed areas.

Actions:

- A. Develop proposals to make developed areas more accessible to emergency vehicles and reliable for evacuation. Consider restricting on-street parking, increasing parking fines in hazardous areas, and/or undergrounding overhead utilities. Require that all private access roads be maintained by a responsible party to ensure safe and expedient passage by the Fire Department at any time, and require approval of all locking devices by the Fire Department. Ensure that all public pathways are maintained to provide safe and accessible pedestrian evacuation routes from the hill areas. (Also see Transportation Policies T-28 and T-52.)
- B. Evaluate existing access to water supplies for fire suppression. Identify, prioritize, and implement capital improvements and acquire equipment to improve the supply and reliability of water for fire suppression. Continue to improve the water supply for firefighting to assure peak load water supply capabilities. Continue to work with EBMUD to coordinate water supply improvements. Develop aboveground (transportable) water delivery systems.
- C. Provide properly staffed and equipped fire stations and engine companies. Monitor response time from initial call to arrival and pursue a response time goal of four minutes from the nearest station to all parts of the city. Construct a new hill area fire station that has wildland firefighting equipment and ability.

Policy S-23 Property Maintenance

Reduce fire hazard risks in existing developed areas by ensuring that private property is maintained to minimize vulnerability to fire hazards.

Actions:

- A. Continue and expand existing vegetation management programs.
- B. Property owners shall be responsible for maintaining their structures at a reasonable degree of fire and life safety to standards identified in adopted codes and ordinances.
- C. Promote smoke detector installation in existing structures. Require the installation of smoke detectors as a condition of granting a permit for any work on existing residential and commercial buildings and as a condition for the transfer of property.
- D. Promote fire extinguisher installation in existing structures, particularly in kitchens, garages, and workshops.
- E. Require bracing of water heaters and gas appliances and the anchoring of houses to foundations to reduce fire ignitions following earthquakes.

Policy S-24 Mutual Aid

Continue to fulfill legal obligations and support mutual aid efforts to coordinate fire suppression within Alameda and Contra Costa Counties, Oakland, the East Bay Regional Park District, and the State of California to prevent and suppress major wildland and urban fire destruction.

Actions:

- A. Work with inter-agency partners and residents in vulnerable areas to investigate and implement actions to improve fire safety, using organized outreach activities and councils such as the Hills Emergency Forum and the Diablo Fire Safe Council.
- B. Establish close coordination with the California Department of Forestry to minimize the risk of wildland fire in the hill areas.

Policy S-25 Fire Safety Education

Use Fire Department personnel to plan and conduct effective fire safety and prevention programs.

Actions:

- A. Provide fire safety presentations and programs to local schools, community groups, and neighborhoods.
- B. Provide fire safety classes for high-occupancy institutional land uses, and commercial and industrial occupancies.
- C. Develop and implement a program to improve public awareness and disseminate appropriate warnings during times of high fire danger.

Appendix C: Implementing the CWPP Using a Leveraging Strategy

1. Berkeley Adopted Plans and Policies Relevant to Implementing the Community Wildfire Protection Plan

The Berkeley General Plan is a comprehensive, and long-range statement of community priorities and values developed to guide public decision-making in future years. Berkeley adopted plans and ordinances reflect Berkeley's values and actions, and many relate to community wildfire protection. Many of the adopted plans directly address wildfire. Others recognize that wildfire is an issue that impacts the plan's topic and offer the opportunity for leverage.

Disaster Preparedness & Safety Element of the City of Berkeley General Plan.¹⁷ Planning Department.

The General Plan Disaster Preparedness and Safety Element's goals, objectives, and policies serve as a guide for day-to-day decisions that are essential for responsive government. Decisions made by Berkeley City Council and its advisory boards, and commissions about the physical development of the City should be consistent with the goals, objectives, and policies of this Plan. The City Council and Planning Commission use the General Plan when evaluating land use changes and making funding and budget decisions. It is used by the Zoning Adjustments Board and City staff to help regulate development proposals and make decisions on projects. The policies of the Plan apply to all property, both public and private, within the Berkeley City limits. Although the University of California and other State/County agencies are not legally obligated to comply with the Plan, mutual cooperation benefits all agencies.¹⁸

The Disaster Preparedness and Safety Element of the City of Berkeley General plan was adopted 2002 as a part of the Berkeley General Plan as required by State law. Senate Bill 1241 (Kehoe 2012) modified Government Code Section 65302 and 65302.5 requiring cities and counties to address fire risk in SRAs and VHFHSZ in the safety element of their general plans.

The 2002 Safety Element was updated with adoption of the Local Hazard Mitigation Plan (see LHMP for details). On July 29, 2019, the Board of Forestry and Fire Protection completed its review of Berkeley's Disaster Preparedness and Safety Element; the City accepted the Board's recommendations.

Within the General Plan, the Disaster and Safety Element is where most of the current wildland fire programs and strategies are found. See (pages S-10 onward):

https://berkeleyca.gov/sites/default/files/documents/07_Disaster%20Preparedness%20and%20Safety%20Element-FINAL_0.pdf

¹⁷ <https://berkeleyca.gov/your-government/our-work/adopted-plans/berkeley-resilience-strategy>

¹⁸ City of Berkeley, General Plan. <https://berkeleyca.gov/your-government/our-work/adopted-plans/general-plan> and General Plan: Disaster Preparedness and Safety Element. https://berkeleyca.gov/sites/default/files/documents/07_Disaster%20Preparedness%20and%20Safety%20Element-FINAL_0.pdf Accessed 1/30/22.

Five policies were established, each with their set of actions: The Policies and Actions appear in Appendix C. The following are the five policies:

- *Policy S-21 Fire Preventive Design Standards*
Develop and enforce construction and design standards that ensure new structures incorporate appropriate fire prevention features and meet current fire safety standards.
- *Policy S-22 Fire Fighting Infrastructure*
Reduce fire hazard risks in existing developed areas.
- *Policy S-23 Property Maintenance*
Reduce fire hazard risks in existing developed areas by ensuring that private property is maintained to minimize vulnerability to fire hazards.
- *Policy S-24 Mutual Aid*
Continue to fulfill legal obligations and support mutual aid efforts to coordinate fire suppression within Alameda and Contra Costa Counties, Oakland, the East Bay Regional Park District, and the State of California to prevent and suppress major wildland and urban fire destruction.
- *Policy S-25 Fire Safety Education*
Use Fire Department personnel to plan and conduct effective fire safety and prevention programs.

Relevance to the CWPP: See LHMP for the role the Safety Element plays during implementation of the CWPP.

Leveraging the Berkeley CWPP										
Existing plans, programs and policies that support CWPP Action Plan										
	Supports Priority Action Plan					Supports additional FAC strategies				
	Prevention	Safety & Evacuation	Resident Mitigation	Wildfire Response	Large Scale Landscape Treatment	Regulations, Policies & Plans	Infrastructure & Business	Recovery	Partnerships and Community Engagement	Public Health
City of Berkeley Adopted Plans and Policies										
Disaster Preparedness & Safety Element of the City of Berkeley General Plan.	see LHMP for Updated Plan									
Local Hazard Mitigation Plan, 2019.	*	*	*	*	*	*	*	*	*	*
Housing Element, 2023 in progress		*				*				*
Berkeley Vision 2050 - Planning for a Sustainable and Resilient Future, 2020. Implementation reports 2021+.	*	*				*	*			*
Subdivision Review, Response to AB2011, 2022 in progress		*								*
Fire Risk Reduction Community, 2022. Response to AB1823.		*				*				
Berkeley Watershed Master Management Plan, 2012					*		*			
Berkeley Resilience Strategy, 2016	*	*				*	*	*		*
Berkeley Strategic Plan, 2018	*	*				*	*	*	*	*
Climate Action Plan, 2009, Update 2022.	*		*			*		*		*
City of Berkeley Codes and Ordinances										
Municipal Code Chapter 19.48.020 Amendments to CA Fire Code known as "Berkeley Fire Code" (BFC).	*		*			*				*
Compliance standards for Defensible Space Inspections	*		*			*			*	
Chapter 6.52 City Trees and coast live oak	*		*		*					
Chapter 7.80 Fire Prevention and Preparedness Assessment	*		*			*				*
Chapter 12.99 Wildfire evacuation risk mitigation ordinance		*				*				*
Chapter 17.08 Preservation and restoration of natural watercourses					*	*				*
Chapter 19.28.030 CBC Chapter 7A materials and construction methods for exterior wildfire exposure			*			*				*
Chapter 19.29.05 CRC Section R337 Materials and Construction Methods for Exterior Wildfire Exposure			*			*				*
Code 19.48 Berkeley Fire Code + 19.48.020 Amendments to CA Fire Code			*			*				*
Chapter 21.40 Design requirements			*			*				*
Chapter 23.108.020 Zoning Districts			*			*				*
Chapter 23.202.070 ES-R Environmental Safety - Residential District (Panoramic Hill)			*			*				*
Chapter 23.210.020 Hillside Overlay Zones			*			*				*
Chapter 23.306 Accessory Dwelling Units			*			*				*
Ordinance 7680 amendments to CA Fire Code - adopt VHFHSZ pursuant to GCS1179(1) and 14CCR1280.02			*			*				*
COB 7799 Planning and zoning requirements more conservative than 14CCR 1299.03			*			*				*
City of Berkeley programs and implementation measures										
Measure FF + Measure GG funded programs										
• WUI Division	*		*						*	*
• Defensible Space Inspection Program.			*						*	*
• Vegetation removal programs	*		*						*	*
• Safe passages program		*								*
• Berkeley Ready		*							*	*
	Supports Priority Action Plan					Supports additional FAC strategies				
	Prevention	Safety & Evacuation	Resident Mitigation	Wildfire Response	Large Scale Landscape Treatment	Regulations, Policies & Plans	Infrastructure & Business	Recovery	Partnerships and Community Engagement	Public Health

Figure 12. Existing plans, programs and policies that support Priority Actions and additional FAC Strategies identified in the CWPP Action Plan.

Leveraging the Berkeley CWPP (continued)										
<i>Existing plans, programs and policies that support CWPP Action Plan</i>										
	Supports Priority Action Plan					Supports additional FAC strategies				
	<i>Prevention</i>	<i>Safety & Evacuation</i>	<i>Resident Mitigation</i>	<i>Wildfire Response</i>	<i>Large Scale Landscape Treatment</i>	<i>Regulations, Policies & Plans</i>	<i>Infrastructure & Business</i>	<i>Recovery</i>	<i>Partnerships and Community Engagement</i>	<i>Public Health</i>
City of Berkeley programs and implementation measures (continued)										
• Evacuation outdoor warning system		*							*	*
• Firewise communities	*		*						*	*
• CWPP development, implementation and updates	*					*				*
• Additional emergency vehicles and larger training facility				*						*
Adjacent Agencies Wildfire Hazard Reduction Plans + CWPP										
Alameda County CWPP	*	*	*	*	*				*	*
Association of Bay Area Governments. Wildfires - how to preserve and protect housing	*	*	*		*	*	*	*	*	*
City of Albany - Albany Hill Master Plan 2012	*			*	*					
City of El Cerrito/ Kensington CWPP	*	*	*	*	*				*	*
Contra Costa County CWPP	*	*	*	*	*				*	*
East Bay Municipal Utility District - Watershed Master Plan	*			*	*					
East Bay Regional Parks District - Wildfire Management and Resource Management Plan 2010	*			*	*					
El Cerrito Kensington CWPP	*	*	*	*	*				*	*
Lawrence Berkeley Laboratory - Wildland Fire Management Plan + Comprehensive Vegetation Management Plan.	*			*	*					
Oakland Safety Element	*	*	*	*	*				*	*
Oakland Vegetation Management Plan & EIR. In progress.				*	*					*
University of California, Berkeley - Wildfire Mitigation Plan and EIR 2021	*			*	*					
Compliance with State Laws (Legislative/ State requirements)										
AB38 (2019) real estate transaction certifications			*							*
AB747 (2019) Evacuation routes: capacity, safety and viability under range of scenarios		*				*				*
AB1550 + SB535 (2012/2016). Identification of priority populations (disadvantaged and low income) for California Climate Investment funds.						*				*
AB1823 (2019) Fire Risk Reduction Communities						*			*	
AB2911 (2018) +SB99 (2019) subdivisions without secondary egress routes		*								*
AB3074 (2020) Ember resistant Zone (Zone 0)	*		*							*
SB9 (2021). Housing development approvals.						*				*
SB99(2019). Identify developments without two emergency evacuation routes upon revision of housing element.		*								*
SB246, SB379, SB1035 (2015, 2018). Integrated climate adaptation and resilience strategies with ICARP.					*	*		*		*
SB1241 + SB2160. Include fire risk in SRA and VHFHSZ in safety element. Include considerations from OPR Fire Hazard Planning. Transmit VHFHSZ, safety element and tentative map or parcel map to BOF to review.						*				
	Supports Priority Action Plan					Supports additional FAC strategies				
	<i>Prevention</i>	<i>Safety & Evacuation</i>	<i>Resident Mitigation</i>	<i>Wildfire Response</i>	<i>Large Scale Landscape Treatment</i>	<i>Regulations, Policies & Plans</i>	<i>Infrastructure & Business</i>	<i>Recovery</i>	<i>Partnerships and Community Engagement</i>	<i>Public Health</i>

Figure 12. Existing plans, programs and policies that support Priority Actions and additional FAC Strategies identified in the CWPP Action Plan (continued).

Local Hazard Mitigation Plan (LHMP). Planning Department.

In 2019, Berkeley updated their Local Hazard Mitigation Plan¹⁹ (LHMP) first developed in 2014. The major update to the Wildland Urban Interface Fire Section was to integrate the mapping on hazardous fire zones on a single map and provide a new map locating pathways as a key resource for pedestrian evacuation. The Plan is organized in 5 elements: A. planning process; B. hazard analysis; C. mitigation strategy; D. plan review, evaluation and implementation; and E. plan adoption. Wildfire was identified as a hazard of greatest concern, along with earthquakes.

The 2019 LHMP is an Appendix to the General Plan Safety Element per City Council Resolution 69,236-N.S. Resolution 29237. The document was reviewed by the Board of Forestry on June 11, 2019, for conformance with GC 65302.5(b). Plan monitoring and updates are on a five-year planning cycle. Comprehensive plan evaluation update will occur if a disaster occurs, or no later than the 4-year mark of the 2019 plan (late 2023).

The LHMP states Berkeley will focus on three goals to reduce and avoid long-term vulnerabilities to the hazards identified in Element B: *Hazard Analysis*:

1. The City will evaluate and strengthen all City-owned properties and infrastructure, particularly those needed for critical services, to ensure that the community can be served adequately after a disaster.
2. The City will establish and maintain incentive programs and standards to encourage local residents and businesses to upgrade the hazard resistance of their own properties.
3. The City will actively engage other local and regional groups to collaboratively work towards mitigation actions that help maintain Berkeley's way of life and its ability to be fully functional after a disaster event.

Five objectives guide the mitigation strategy:

- A. Reduce the potential for loss of life, injury and economic damage to Berkeley residents and businesses from earthquakes, wildfires, landslides, floods, tsunamis, climate change, extreme heat, and their secondary impacts.
- B. Increase City government's ability to serve the community during and after hazardous events by mitigating risk to key City functions.
- C. Connect with residents, community-based organizations, institutions, businesses, and essential lifeline systems in order to increase mitigation actions and disaster resilience in the community.
- D. Preserve Berkeley's unique character and values from being compromised by hazardous events.
- E. Protect Berkeley's historically underserved populations from the impacts of hazardous events by applying an equity focus, including equal access, to mitigation efforts.

Further overview of high priority actions in mitigation strategies address WUI fire issues that dovetail with the CWPP priorities. Each action in the Mitigation Strategy identifies a Staff Lead. As part of their day-to-day work, Staff Leads will monitor, evaluate, and report on the progress of their assigned LHMP actions at necessary meetings with other staff, institutional community partners, the Disaster Council, relevant City commissions, and the Berkeley City Council.

¹⁹ <https://berkeleyca.gov/safety-health/disaster-preparedness/local-hazard-mitigation-plan>

At the beginning of each calendar year the Office of Emergency Services will coordinate a monitoring, evaluation, and reporting effort for the entire LHMP. OES will collect an updated progress report from each identified Staff Lead for each action. The progress report will:

- Provide qualitative and quantitative evaluation of City progress on activities
- Identify any necessary changes to the action in order to more effectively achieve stated purpose and goals
- Identify new Plan actions to be incorporated into the Strategy

The Safety Element (update and adoption of the LHMP) is a key planning document as it is required by state law with a 5-year mandated update.

Relevance to the CWPP: There is an opportunity to link both the Safety Element/ LHMP and the CWPP updates, as the Safety Element often looks to the CWPP to address wildfire risks and mitigation measures. Mitigation strategies specifically support the CWPP Action Plan in the following areas:

- Prevention and resident mitigation: with enforcement programs including annual inspections of over 1,200 high-risk properties annually;
- Regulations, policies, and plans: through development regulations with strict building and fire code provisions, as well as more restrictive local amendments for new and renovated construction;
- Resident mitigation and large-scale landscape treatments: including natural resource protection through four different vegetation management programs;
- Safety and evacuation with focus on improvement of access and egress routes and evaluation of traffic to ensure calming measures (bulb outs, bike lanes, raised crosswalks, etc.) are not a hindrance to evacuation; and
- Wildfire response, infrastructure, and business: through infrastructure maintenance and improvements to support first responders' efforts.

Housing Element.²⁰ Planning Department.

The housing element is the primary planning guide to identify and prioritize housing needs of the City and determine the best ways to meet these needs while balancing community objectives and resources.²¹ On January 18, 2023, the Berkeley City Council approved and adopted the 2023-2031 Housing Element (v6) with amendments. It was submitted to the Department of Housing and Community Development on January 23, 2023. The Council found the 2023-2021 Housing Element to be in substantial compliance with State Housing Element law.

The Housing Element update 2023-2031 recognizes the hazards presented by wildfire. The City of Berkeley's Building and Safety Codes set forth additional restrictions for structures within the City's designated fire hazard zones. Program 29 – "Middle Housing" encourages and promotes a mix of dwelling types and sizes, particularly infill and converted existing housing in high resource neighborhoods. Zoning updates will allow for by-right multi-unit development on one lot, often called "accessory dwelling units" (ADU). The Housing Element recognizes the need to coordinate ADU policies and zoning updates with the CWPP and Fire Department Standards of Coverage.²²

²⁰ [Adopted 2023-2031 Housing Element and Appendices \(v6\) with resolutions, 01/23/2022](#)

²¹ City of Berkeley Housing Element Update 2023-2031. Public Hearing Draft 12-1-22. https://berkeleyca.gov/sites/default/files/documents/Berkeley_HEU_Combined_12-01-2022.pdf Accessed 1/30/22.

²² City of Berkeley Housing Element Update 2023-2031 pg. 144.

In the accompanying Draft Environmental Impact Report,²³ Section 4.17 Wildfire, discusses the impacts associated with wildfire and development in the very high fire severity zone, including impacts associated with emergency evacuation and exposure to pollutants from a wildfire. Information about the City's Standard Condition of Approval for a TCP is discussed²⁴. Impact HAZ-5 in Section 4.18, Hazards and Hazardous Materials. These impacts were found to be significant and unavoidable.

Relevance to the CWPP: Housing Element shares implementation measures related to the CWPP Action Plan priorities of safety and evacuation, as well as regulations policies and plans, and public health.

Berkeley Vision 2050: Planning for a Sustainable and Resilient Future. Public Works Engineering.

Berkeley Vision 2050²⁵ is a long-term plan adopted May 2020²⁶ to build, upgrade, and repair Berkeley's aging infrastructure to be more sustainable and resilient in order to meet the serious challenges of the future, including climate change, and is driven by a set of core values: equity, public health and safety, a strong local economy, resiliency, and sustainability. The Plan includes a strategy to adopt sustainable and safe technologies which addresses having an integrated approach to fire safety, including preparing a wildfire mitigation and safety plan (CWPP).

Among the identified challenges facing Berkeley's infrastructure is the need to "adapt to our higher fire risk climate by improving forest management, creating viable escape routes in high hazard areas, expanding pre-fire education and outreach programs, improving emergency warning systems, undergrounding overhead utility wires, creating "smoke-free" community centers during major smoke events, and taking other significant steps to protect our residents. A critically important action will be to work with PG&E, the California Public Utilities Commission, and other agencies to ensure that any Public Safety Power Shutoff activity (PSPS) does not block Berkeley's emergency services, keep basic infrastructure from functioning, or adversely affect residents who require electric power in their homes for medical support. This work will be essential as Berkeley makes a major transition from natural gas to electricity for buildings and from gasoline-powered cars to electric vehicles. Building more self-sufficiency and flexibility is

²³ City of Berkeley Housing Element Update 2023-2031. Draft Environmental Impact Report. August 2022. <https://berkeleyca.gov/sites/default/files/documents/Berkeley%202023-2031%20Housing%20Element%20Update%20Draft%20EIR.pdf> Accessed 1/30/23.

²⁴ Final EIR and Responses to Comments on the Draft Environmental Impact Report SCH#2022-1-331. pg. 100 "Construction of individual housing developments could interfere with adopted emergency response or evacuation plans as a result of temporary construction activities within rights-of-way. However, temporary construction barricades or other construction-related obstructions used for project development that could impede emergency access would be subject to the City's Standard Conditions of Approval, which include a condition to prepare a Transportation Construction Plan (TCP) subject to City review and approval. Implementation of a TCP would limit the extent to which construction activities during the planning period of the HEU would impair or physically interfere with adopted emergency response or evacuation procedures."

https://berkeleyca.gov/sites/default/files/documents/ATT%20%20FEIR_RTC.pdf Accessed 1/30/23.

²⁵ <https://berkeleyca.gov/community-recreation/news/weigh-improving-city-streets-buildings-and-infrastructure>

²⁶ Sustainable and Resilient Infrastructure. Presented May 2020.

<https://berkeleyca.gov/sites/default/files/documents/Vision-2050-Framework.pdf> Accessed 1/30/23.

an essential feature of Berkeley’s resilient clean energy future. Critical facilities and services are vulnerable to power shutoffs caused by fires or other disasters. Clean energy microgrids, capable of providing electricity even when the larger grid is down, must be prioritized at public health and safety facilities, and encouraged elsewhere in the city. They can work in parallel with the grid, contributing to our state and national GHG reduction goals, but also harness local clean energy resources to provide power during extended outages. There may also be opportunities to underground more of the infrastructure, improving local safety and upgrading switches, relays, transformers, and other essential elements of the grid.”²⁷

Vision 2050 serves as a framework for a variety of implementation measures over five years. The Program Plan was released in May 2021 for public review to establish expected outcomes, work priorities, funding, and accountability, including revenue options and funding strategies. In 2021, Vision 2050 completed a scientific survey (see Results of Scientific Survey, and Direction on Revenue Measure(s)²⁸ and a Strategic Asset Management Plan as groundwork to look at funding measures. Undergrounding was identified as a tier 2 priority along with stormwater, parks, trees, and waterfront. As of the December 2022 progress report, the program had achieved 25% their mid-term focus.

Relevance to the CWPP: Vision 2050 shares several implementation measures related to the CWPP Action Plan priorities of prevention, safety, and evacuation, as well as regulations policies and plans, and infrastructure and business. The Vision 2050 program could serve as a model for implementation and tracking of the CWPP.

Berkeley Watershed Master Management Plan (WMP) and Final Mitigated Negative Declaration (MND), October 22, 2012. Public Works Engineering.

The Watershed Management Plan (WMP)²⁹ offers an integrated and sustainable strategy for managing urban water resources. It is intended to guide City efforts to establish a healthier balance between the urban environment and natural ecosystems. The WMP looks at addressing water quality, flooding, and the preservation of creeks and aquatic habitats using multi-objective approaches where possible. This entails supplementing the existing engineered storm drain infrastructure with green infrastructure approaches that mimic natural hydrologic processes including filtration and infiltration by soils and evapotranspiration by plants. Additionally, various green retrofit measures appropriate for the public right-of-way as well as for public and private property are recommended in the WMP.

The WMP includes potential programs, projects, relevant city policies and refinements to City policy development. Implementation of the WMP will depend on available funding and is a 30-plus year program based on costs and scope. Two watersheds, Potter and Cordonices, are identified for capital improvement projects as funding becomes available. Programs and projects could be integrated in with the CWPP projects to address large scale landscape treatment in the watersheds as well as resident mitigation (where creeks and watershed improvements extend onto private property adjacent to homes).

²⁷ Vision 2050. 10-5-20 pg. 40. <https://berkeleyca.gov/sites/default/files/documents/Vision-2050-Framework.pdf>

²⁸ <https://berkeleyca.gov/sites/default/files/documents/2022-05-31%20Item%2037%20Presentation.pdf>
Accessed 1/30/23.

²⁹ <https://berkeleyca.gov/your-government/our-work/adopted-plans/watershed-management-plan>

Relevance to the CWPP: The Watershed Master Plan shares several implementation measures related to the CWPP Action Plan priorities of large-scale landscape treatment, as well as infrastructure and business. The WMP could offer guidance for hazardous fuel reduction in watersheds as part of preservation of creek and multi-objective approach. The MND could serve as a foundation for complying with the California Environmental Quality Act (CEQA) for these projects.

Berkeley Resilience Strategy, April 1, 2016. City Manager's Office.

The Berkeley Resilience Strategy³⁰ advances preparedness and equity in Berkeley, a community known for inclusiveness and innovation. A city's resilience is defined by the ability of the community to survive, adapt, and thrive no matter what acute shock or chronic challenge it experiences. Advancing Berkeley's resilience requires working together to identify solutions that have multiple benefits and address multiple challenges at once.

On April 1, 2016, Berkeley released its Resilience Strategy, which identifies six long-term goals and short-term actions to help address some of Berkeley's most pressing challenges.

1. Build a connected and prepared community
2. Accelerate access to reliable and clean energy
3. Adapt to the changing climate
4. Advance racial equity
5. Excel at working together within City government to better serve the community
6. Build regional resilience

Relevance to the CWPP: The 2016 Resilience Strategy offers several long-term goals that support the CWPP especially those related to a prepared community and regional resilience including: prevention, safety and evacuation, regulations, policies and plans, infrastructure and business, recovery, and public health.

Berkeley Strategic Plan (2018). City Manager's Office

The City of Berkeley's Strategic Plan³¹ Identifies the long-term goals and short-term priorities that the City government will focus on to benefit the Berkeley community. Its goals include creating affordable housing and housing support services for the most vulnerable community members; being a global leader in addressing climate change, advancing environmental justice and protecting the environment; providing an efficient and financially healthy City government with state of the art well maintained infrastructure, amenities and facilities; foster a dynamic and sustainable and locally based economy; create a resilient safety connected and prepared community; be customer focused organization with excellent, timely, easily accessible service and information; and attract and retain a talented and diverse City Government workforce.³²

Relevance to the CWPP: The Berkeley Strategic plan offers several goals that specifically address actions in the CWPP. These relate to the action plan priorities of prevention, safety and evacuation, regulations, policies and plans, infrastructure and business, recovery, partnerships

³⁰<https://berkeleyca.gov/your-government/our-work/adopted-plans/berkeley-resilience-strategy>

³¹ <https://berkeleyca.gov/your-government/our-work/strategic-plan>

³² Strategic Plan, <https://berkeleyca.gov/your-government/our-work/strategic-plan> Accessed 1/30/23.

and community engagement and public health. Performance measures and progress on priorities are tracked with quarterly reports and posted to the City website. See quarter report July 2022 for detail under the goal of “resilient city.”

Climate Action Plan, 2009 + annual updates. Office of Energy and Sustainable Development.

The City of Berkeley’s Climate Action Plan³³ sets forth a vision of “a more sustainable, livable, equitable, and economically vibrant community. By using energy more efficiently, harnessing renewable electricity to power buildings, enhancing access to sustainable transportation, reducing waste, and building local food systems, Berkeley can keep dollars in the local economy, create new green jobs, and improve quality of life.”³⁴

The Climate Action Plan focuses on an annual greenhouse gas (GHG) inventory to understand the sources of community-wide GHG emissions, to measure progress towards meeting the City’s Climate Action Plan (CAP) goals, and to move toward becoming a Fossil Fuel-Free city. Like previous annual inventories, Berkeley’s 2019 community-wide GHG inventory focuses on emissions specifically occurring within the City and includes the following sources: transportation (on-road vehicles and public transit), building electricity usage, building natural gas consumption, landfill solid waste, and emissions from water consumption and wastewater treatment.

The Berkeley Climate Action Coalition is a network of local non-profits, educational institutions, businesses, faith-based organizations, public health organizations, neighborhood groups, government agencies and committed individuals, all working together to implement the 40-year Berkeley Climate Action Plan. The Ecology Center, a non-profit organization, convenes the coalition.

Since the development of the 2009 plan there have been several statewide initiatives that have recognized wildfire as a component of Climate Action. Climate change vulnerability assessment and adaptation are now requirements for the safety element are specified in GC § 65302(g)(4).

The Integrated Climate Adaptation and Resiliency Program (ICARP) ([PRC 71350-71360](#)) drives California’s response to climate impacts, prioritizing equitable approaches that integrate mitigation and adaptation. ICARP’s home within the Governor’s Office of Planning and Research (OPR) enables the State to coordinate across local, regional, and state efforts to support cohesive strategies. ICARP achieves this statutory directive through four primary workstreams: policy and programmatic alignment, climate services, actionable climate science, and direct investments.

In August 2022, the Governor’s Office of Planning and Research issued an updated Fire Hazard Planning Technical Advisory and new Wildland-Urban Interface (WUI) Planning Guide. The City of Berkeley’s 2019 Local Hazard Mitigation Plan was showcased as a case study in the Technical Advisory.

³³ www.CityofBerkeley.info/climate

³⁴ Berkeley Climate Action Plan, 2009 + annual reports (Feb. 2022).

https://berkeleyca.gov/sites/default/files/2022-05/February%208%202022%20CAP%20Workshop_Slides_final_0.pdf. Accessed 1/30/23

Relevance to the CWPP: There is no mention of wildfire hazards or mitigation in 2009 Climate Action Plan and subsequent annual progress updates. However, the final two items in the “vision for a more sustainable Berkeley” could incorporate wildfire impacts:

- *Our community is resilient and prepared for the impacts of global warming*
- *The social and economic benefits of the climate protection effort are shared across the community.*

Specifically, an updated Climate Action Plan that complies with new state requirements to address wildfire could support: prevention, resident mitigation, regulations, policies & plans, recovery, and public health.

2. Codes and Ordinances

The City of Berkeley’s Building and Safety, and Code Enforcement Divisions adopted the 2022 California Building Standards Code together with local amendments with an effective date of January 1, 2023³⁵. These building codes and the enforcement process directly support the prevention and resident mitigation priority actions and are key tools in regulations, policies and plans supporting public health in the built environment.

The City has adopted several local amendments to the City of Berkeley code. Most notably, the City has incorporated additional restrictions for structures within the City’s designated fire hazard zones, including limitations on roofing materials, requirements for spark arrestors on appliances using solid fuel, and undergrounding of utilities. While these requirements may add to the cost of construction of residential units, they are necessary to help mitigate the risk of damage by wildfire in these areas. These codes can be found under Municipal Code Chapter 19.48.020 Amendments to CA Fire Code known as “Berkeley Fire Code” (BFC). Interior sprinklers (903.2.23). WUI (4902.1 - 4908). Berkeley Fire Code Chapter 48, Berkeley Building Code Chapter 7A. Adopt 2019 CA Fire Code and IFC 2018 edition.
<https://berkeley.municipal.codes/BMC/19.48>

Relevance to the CWPP: In addition to the building and fire codes, there are several other codes that support the CWPP Action Plan areas of: prevention, safety and evacuation, resident mitigation, large scale treatment, regulations policies and plans, partnerships and community engagement and public health, including:

- Compliance standards for Defensible Space Inspections - Inspection Form. Refers to PRC 4291, CCR Title 14, Div 1.5, Cpt 4, Sub Chapter 3 Section 1299.
- Chapter 6.52 City Trees and coast live oak - <https://berkeleyca.gov/city-services/streets-sidewalks-sewers-and-utilities/city-trees-and-coast-live-oak-ordinance>.
- Chapter 7.80 Fire Prevention and Preparedness Assessment <https://berkeley.municipal.codes/BMC/7.80>
- Chapter 12.99 Wildfire Hazard Evacuation Risk Mitigation Ordinance. City of Berkeley 7799 Planning and zoning requirements are more conservative than those required by the State under 14CCR 1299.03. <https://berkeley.municipal.codes/BMC/12.99>

³⁵ <https://berkeley.municipal.codes/>

- Chapter 17.08 Preservation and restoration of natural watercourses. <https://berkeley.municipal.codes/BMC/17.08>
- Chapter 19.28.030 CBC Chapter 7A materials and construction methods for exterior wildfire exposure and establishment of Zones 1, 2, and 3. <https://berkeley.municipal.codes/BMC/19.28.030>
- Chapter 19.29.05 CRC Section R337 Materials and Construction Methods for Exterior Wildfire Exposure. <https://berkeley.municipal.codes/BMC/19.29.050>
- Chapter 21.40 Design requirements. <https://berkeley.municipal.codes/BMC/21.40>
- Chapter 23.108.020 Zoning Districts. <https://berkeley.municipal.codes/BMC/23.108.020>
- Chapter 23.202.070 ES-R Environmental Safety - Residential District (Panoramic Hill). <https://berkeley.municipal.codes/BMC/23.202.070>
- Chapter 23.210.020 Hillside Overlay Zones. <https://berkeley.municipal.codes/BMC/23.210.010>
- Chapter 23.306 Accessory Dwelling Units. <https://berkeley.municipal.codes/BMC/23.306.010>
- Ordinance 7680 amendments to CA Fire Code - adopt VHFHSZ pursuant to GC51179(1) and 14CCR1280.02 <https://berkeley.municipal.codes/BMC/19.48.020>

3. City of Berkeley Programs and Implementation Measures

Two voter approved measures, Measure FF (2020) and Measure GG (2008), provide funding for fire protection, emergency response and preparedness. Several of these programs focus on wildfire mitigation including:

- WUI Division: The Berkeley Fire Department Wildland-Urban interface Division was formed in 2021 with a dedicated Staff focused solely on citywide wildfire hazard mitigation and strengthening community wildfire resiliency.
- Defensible Space Inspection Program. Berkeley has expanded its' Defensible Space Inspection Program to all of Fire Zones 2 & 3. This encompasses Zones 2 and 3. Dedicated inspectors from the WUI Division inspect 8,600 parcels on an annual basis. The Defensible Space Inspection Program is open year-round, and each annual inspection cycle begins on May 1. Customized defensible space inspection software, "Fire Aside," provides personalized reports to property owners, including notice of defensible space code violations, a home hardening evaluation, and wildfire education resource links. Property owners can now clear violations with photo evidence online.
- Vegetation Removal Programs. The WUI Division is also working to develop a comprehensive WUI work plan that will provide strategic guidance for related work for the next five years. Plans are to expand existing programs and extend some services city-wide, including fuel reduction public land, roadside, private land incentives, debris bins, and city-wide chipping services. The last three years, Berkeley has removed nearly 300 hazardous trees mostly eucalyptus and Monterey Pine from city parks, paths, and street rights-of-way. Another roughly 40 trees have been trimmed or cut back.
- Safe Passages Program. The Fire Department and public works are expanding the Safe Passages program that effectively widens existing streets through identification of bottle

necks, installing red curb, remove parking etc. to improve evacuation and emergency access.

- Berkeley Ready. Berkeley Fire Department's Office of Emergency Services hosts Berkeley Ready³⁶ with disaster preparedness resources to help residents prepare their households and community for emergencies and disasters. The program addresses multiple hazards including wildfire. They offer training for Community Emergency Response Teams (CERT) emergency notifications, and a host of materials for creating a disaster plan, building supply kits, presentations on home hardening and fire weather preparation, links to plans, community resilience centers, BEACON network (Berkeley emergency accessible community organizations network), as well as disaster supply caches and dumpsters for neighborhood groups. Evacuation related programs include evacuation drills, use of AC Alert and Zonehaven evacuation zones for notifications³⁷,
- Evacuation outdoor warning system. During July 2022, City of Berkeley introduced a new outdoor warning system. The first five speaking sirens were installed to alert residents about all types of emergencies and providing hyperlocal evacuation messages. Berkeley's speaking sirens system join the Oakland and UC Berkeley alert & warning sirens heard throughout the East Bay that indicate residents should follow local emergency broadcast news stations.
- Firewise Communities. The National Fire Protection Agency (NFPA) program, Firewise Communities, provides a framework for communities to develop and implement local solutions for wildfire preparedness. Beginning in 2022, new Firewise neighborhoods have been recognized, with more forming. The Firewise program has been recognized the California Insurance Commissioner and many insurance companies as an effective program to harness resident participation in prevention, safety and evacuation and resident mitigation. During the preparation of the CWPP, information was added to the Hub of existing and pending Firewise communities.
- Additional Measure FF programs include the creation of the Community Wildfire Prevention Plan, additional emergency vehicles, and a larger training facility.

Relevance to the CWPP: The Measure FF and GG programs tie directly to the Priority Action Plans including prevention, safety and evacuation, resident mitigation, wildfire response, large-scale landscape treatments, regulations policies and plans, partnerships and community engagement, and public health.

4. Adjacent Agencies' Wildfire Hazard Reduction Plans and CWPPs

Adjacent cities and public lands management agencies share many of the goals identified in the Berkeley CWPP. Neighboring fire agencies respond through the mutual aid agreements and the State Emergency Management System. Plans and CWPPs include:

³⁶ Disaster Preparedness resources. <https://berkeleyca.gov/safety-health/disaster-preparedness>
Accessed 1/30/23.

³⁷ AC Alert: <https://member.everbridge.net/453003085612570/login> and Zonehaven
<https://community.zonehaven.com/?latlon=37.869729601064535,-122.25564253984373&z=12&selected=US-CA-XAL-BER-E04> Accessed 1/30/23.

- Alameda County Community Wildfire Protection Plan, 2016
- Association of Bay Area Governments. Wildfires - how to preserve and protect housing, 2021.
- Contra Costa County CWPP, 2022.
- City of Albany - Albany Hill Master Plan 2012.
- City of El Cerrito/ Kensington Wildfire Action Plan, 2017.
- East Bay Municipal Utility District - Watershed Master Plan, 2018.
- East Bay Regional Parks District - Wildfire Management and Resource Management Plan, 2010.
- Lawrence Berkeley Laboratory - Wildland Fire Management Plan and Vegetation Management Guide, in progress.
- Oakland Vegetation Management Plan & EIR. In progress. Draft, 2020.
- Oakland Safety Element and Local Hazard Mitigation Plan, 2021.
- University of California, Berkeley - Wildfire Mitigation Plan and EIR, 2021.

Relevance to the CWPP: Shared mitigation approaches can begin to address some of the more difficult regional challenges identified in the CWPP, especially those concerning: safety and evacuation, wildfire response, large-scale landscape treatment, recovery, partnerships and community engagement and public health

5. Compliance with State Laws

State laws set minimum standards for local government in many areas of wildfire protection. Some state laws include incentives through grant programs, while others are unfunded mandates. New requirements are usually identified by the enabling legislation initiated either as Assembly Bills (AB) or Senate Bills (SB), that once passed and signed into law by the governor, are incorporated into sections in the Civil Code (CC), Government Code (GC) Public Resource Code (PRC), etc.

Relevance to the CWPP: Since the increase in devastating wildfire activity in 2017, many new California laws have been passed that have yet to take full effect. These new or forthcoming requirements support the CWPP Action Plan in areas of prevention, safety and evacuation, resident mitigation, large scale landscape treatments, regulations policies and plans, recovery, and public health. Recent legislation includes:

AB38 (2019) - Real estate transaction certifications.

As of July 1, 2021, AB-38 requires a seller of real property located in a High or Very High Fire Hazard Severity Zone (FHSZ) provide the buyer with documentation that the property is in compliance with defensible space requirements if the residential home was built before January 1, 2010. Disclosure requires documentation of compliance with Section 4291 of the Public Resources Code or local vegetation management ordinances. Disclosure is listed on the real estate Natural Hazard Disclosure (NHD) report as an AB-38 Notice.

AB747 (2019) - Evacuation routes: capacity, safety, and viability under range of scenarios.

This legislation requires, upon the next revision of a local hazard mitigation plan on or after January 1, 2022, that the safety element to be reviewed and updated as necessary to

identify evacuation routes and their capacity, safety, and viability under a range of emergency scenarios. Added to GC 65302.15.

AB1550 + SB535 (2012/ 2016) - Identification of priority populations.

Disadvantaged communities (DAC) in California are specifically identified for investment of proceeds from the state's Cap-and-Trade Program also known as "California Climate Investments (CCI)". These investments are aimed at improving public health, quality of life and economic opportunity in California's most burdened communities, and at the same time, reducing pollution that causes climate change. In 2016, Assembly Bill 1550 directed CalEPA to identify DACs and also established the currently applicable minimum funding levels from the CCI proceeds. Portions of Berkeley are identified as disadvantaged and low-income communities.³⁸ Projects in DAC areas are given precedence in grant applications related to State CCI funding.

AB1823 (2019). PRC 4290.1 - Fire Risk Reduction Communities

In 2019, Assembly Bill 1823 amended Public Resource Code Section 4290.1 to require that, on or before July 1, 2022, the State Board must develop criteria for and maintain a list of local agencies considered to be a "Fire Risk Reduction Community" located in the SRA or VHFHSZ, identified pursuant to GC § 51178, that meet best practices for local fire planning. Criteria be used to develop the Fire Risk Reduction Community list include recently developed or updated CWPPs, adoption of the board's recommendations to improve the Safety Element, participation in Fire Adapted Communities and Firewise USA programs, and compliance with the Board's minimum fire safety standards.

In 2022, the City of Berkeley applied for and was accepted onto the inaugural Fire Risk Reduction Communities List as one of only 32 local governments throughout California to meet the requirements. Continued coordination and consistency among the CWPP and other plans is important to retain this status as a Fire Risk Reduction Community meeting state recognized best practices and gaining precedence in grant applications related to State CCI funding.

AB2911 (2019). PRC 4290.5 - Subdivision Review Program

The Subdivision Review Program³⁹ was developed to fulfill the requirements of Assembly Bill 2911 (Friedman), and several goals of CAL FIRE's 2019 Strategic Plan. AB 2911 added Section 4290.5 to the Public Resource Code, which requires the CA Board of Forestry and Fire Protection (the Board), in consultation with the State Fire Marshal and the local jurisdiction to identify existing subdivisions with more than 30 dwelling units located in the State Responsibility Area (SRA) or Local Responsibility Area (LRA) Very High Fire Hazard Severity Zone, identified pursuant to Section 51178 of the Government Code, without a secondary means of egress route that are at significant fire risk. Additionally, the Board in

³⁸ Priority populations map. <https://webmaps.arb.ca.gov/PriorityPopulations/> Accessed 1/30/23

³⁹ Subdivision Review Program. <https://osfm.fire.ca.gov/divisions/community-wildfire-preparedness-and-mitigation/subdivision-review-program/> Accessed 1/30/23.

consultation with the State Fire Marshal and the local government that identified the subdivisions shall develop recommendations to improve the subdivision's fire safety.

The Subdivision Review Program is a resource that provides CAL FIRE Units and local jurisdictions support in fire hazard planning to:

1. Work collaboratively with CAL FIRE Units, Land Use Planning Program, and local jurisdictions in providing technical assistance related to specific fire hazard planning within the Safety Element of the General Plan.
2. Provide guidance on the Subdivision Map Act related to Very High Fire Hazard Severity Zones (VHFHSZ's).
3. Provide guidance and support to group leaders with the application process in becoming Firewise USA communities.
4. Assist local CAL FIRE Units to work cooperatively with local governments and stakeholders with the development and creation of more fire resilient communities.

The subdivision review program provides the CWPP the opportunity to implement safety and evacuation and wildfire response mitigation measures in vulnerable areas of the city. One such area has been identified as a subdivision with more than 30 dwellings without a secondary means of egress route and at significant fire risk. As of January 18, 2022, the status from CAL FIRE website is "Report Forthcoming."⁴⁰

SB9 (2021) – Housing Development: Approvals.

SB9 "California Housing Opportunity and More Efficiency (HOME) Act," was adopted in 2021 and requires cities to allow one additional residential unit onto parcels zoned for single-dwelling units. SB9 is complementary with the ADU Law (GC 65852,2 and 65858,22). SB9 is but one housing law among many that have been adopted to encourage the production of homes across California. The Housing Element recognizes the need to coordinate ADU policies and zoning updates with the CWPP and Fire Department Standards of Coverage.⁴¹

SB99 (2019). Safety Element: Emergency evacuation routes.

SB99 amended GC65302 to require cities or counties to identify developments without two emergency evacuation routes, upon the next revision of the housing element (after January 1, 2020). Berkeley has identified Panoramic Hill as such a development (see AB2911).

SB246, SB379, SB1035 (2015, 2018). Integrated climate adaptation and resilience strategies with ICARP.

The Integrated Climate Adaptation and Resiliency Program (ICARP) ([PRC 71350-71360](#)) drives California's response to climate impacts, prioritizing equitable approaches that

⁴⁰ Subdivision Review Program viewer. <https://calfire-forestry.maps.arcgis.com/apps/webappviewer/index.html?id=a045e9e9c01c4dd7abdf14ad30646eaf> Accessed 1/30/23.

⁴¹ City of Berkeley Housing Element Update 2023-2031pg 145.

integrate mitigation and adaptation. ICARP's home within the Governor's Office of Planning and Research (OPR) enables the State to coordinate across local, regional, and state efforts to support cohesive strategies. ICARP achieves this statutory directive through four primary workstreams⁴²:

1. **Policy and Programmatic Alignment:** ICARP aligns and coordinates adaptation at all levels of government via the Technical Advisory Council, the California Climate Adaptation Strategy, long-term disaster recovery and resilience, and more.
2. **Climate Services:** ICARP supports a statewide community of adaptation practitioners through direct technical assistance at the local and regional levels; decision-support tools such as the Adaptation Clearinghouse, Vulnerable Communities Platform, and Cal-Adapt; and coordinating with other State agencies to align climate adaptation guidance and other resources.
3. **Actionable Climate Science:** ICARP coordinates the California Climate Assessment, a Science Advisory Group, and other state-funded climate science research, data, tools, and initiatives.
4. **Direct Investments:** ICARP manages three new climate resilience grant programs and supports state and federal funding and finance alignment through a Cooperative Technical Partners agreement with the Federal Emergency Management Agency (FEMA).

SB1241 + SB2160. Include fire risk in SRA and VHFHSZ in safety element.

SB1241 and SB2160 require local government include considerations from OPR Fire Hazard Planning. They also require local government transmit information on local fire hazard severity zones, the safety element and tentative map or parcel map to the California Board of Forestry to review. This includes fire hazard mapping such as Berkeley's "hillside overlay" and maps in Berkeley's LHMP that show emergency service facilities. Future updates will need to identify areas lacking service and map of roads that do not conform to current standards. Also needed are map of developments that do not conform to current state and local standards for access, water supply, fire flow, signage, and vegetation clearance.

⁴² About ICARP <https://opr.ca.gov/climate/icarp/> Accessed 1/30/23.

Appendix D. General Plan S-23 Disaster Preparedness and Safety Element, Adopted April 23, 2002

Fire Hazards

Policy S-21 Fire Preventive Design Standards

Develop and enforce construction and design standards that ensure new structures incorporate appropriate fire prevention features and meet current fire safety standards.

Actions:

- A. Strengthen performance review and code enforcement programs.
- B. Promote the installation of built-in fire extinguishing systems and early warning fire alarm systems.
- C. Maintain City standards for minimum width and vertical clearance, and ensure that new driveways and roadways meet minimum standards of the Uniform Fire Code or subsequent standards adopted by the City.
- D. Provide adequate water for fire suppression for new development in accordance with City standards for minimum volume and duration of flow.
- E. Establish criteria for the installation of gas shutoff valves in new and existing construction, to reduce the risk of post-earthquake fires.

Policy S-22 Fire Fighting Infrastructure

Reduce fire hazard risks in existing developed areas.

Actions:

- A. Develop proposals to make developed areas more accessible to emergency vehicles and reliable for evacuation. Consider restricting on-street parking, increasing parking fines in hazardous areas, and/or undergrounding overhead utilities. Require that all private access roads be maintained by a responsible party to ensure safe and expedient passage by the Fire Department at any time, and require approval of all locking devices by the Fire Department. Ensure that all public pathways are maintained to provide safe and accessible pedestrian evacuation routes from the hill areas. (Also see Transportation Policies T-28 and T-52.)
- B. Evaluate existing access to water supplies for fire suppression. Identify, prioritize, and implement capital improvements and acquire equipment to improve the supply and reliability of water for fire suppression. Continue to improve the water supply for fire fighting to assure peak load water supply capabilities. Continue to work with EBMUD to coordinate water supply improvements. Develop aboveground (transportable) water delivery systems.
- C. Provide properly staffed and equipped fire stations and engine companies. Monitor response time from initial call to arrival and pursue a response time goal of four minutes from the nearest station to all parts of the city. Construct a new hill area fire station that has wildland fire fighting equipment and ability.

Policy S-23 Property Maintenance

Reduce fire hazard risks in existing developed areas by ensuring that private property is maintained to minimize vulnerability to fire hazards.

Actions:

- A. Continue and expand existing vegetation management programs.
- B. Property owners shall be responsible for maintaining their structures at a reasonable degree of fire and life safety to standards identified in adopted codes and ordinances.
- C. Promote smoke detector installation in existing structures. Require the installation of smoke detectors as a condition of granting a permit for any work on existing residential and commercial buildings and as a condition for the transfer of property.
- D. Promote fire extinguisher installation in existing structures, particularly in kitchens, garages, and workshops.
- E. Require bracing of water heaters and gas appliances and the anchoring of houses to foundations to reduce fire ignitions following earthquakes.

Policy S-24 Mutual Aid

Continue to fulfill legal obligations and support mutual aid efforts to coordinate fire suppression within Alameda and Contra Costa Counties, Oakland, the East Bay Regional Park District, and the State of California to prevent and suppress major wildland and urban fire destruction.

Actions:

- A. Work with inter-agency partners and residents in vulnerable areas to investigate and implement actions to improve fire safety, using organized outreach activities and councils such as the Hills Emergency Forum and the Diablo Fire Safe Council.
- B. Establish close coordination with the California Department of Forestry to minimize the risk of wildland fire in the hill areas.

Policy S-25 Fire Safety Education

Use Fire Department personnel to plan and conduct effective fire safety and prevention programs.

Actions:

- A. Provide fire safety presentations and programs to local schools, community groups, and neighborhoods.
- B. Provide fire safety classes for high-occupancy institutional land uses, and commercial and industrial occupancies.
- C. Develop and implement a program to improve public awareness and disseminate appropriate warnings during times of high fire danger.