



Planning Commission

AGENDA

REGULAR MEETING OF THE PLANNING COMMISSION

This meeting is held in a wheelchair accessible location.

Wednesday, June 5, 2024

6:00 PM

North Berkeley Senior Center

1901 Hearst Avenue, Berkeley

See **“MEETING PROCEDURES”** below.

All written materials identified on this agenda are available on the Planning Commission webpage: <https://berkeleyca.gov/your-government/boards-commissions/planning-commission>

PRELIMINARY MATTERS

- 1. Roll Call:** **Merker, Blaine**, appointed by Councilmember Kesarwani, District 1
Vincent, Jeff, Chair, appointed by Councilmember Taplin, District 2
Moore III, John E. “Chip”, appointed by Councilmember Bartlett, District 3
Oatfield, Christina, appointed by Councilmember Harrison, District 4
Mikiten, Elisa, appointed by Councilmember Hahn, District 5
Marthinsen, Emily, appointed by Councilmember Wengraf, District 6
Twu, Alfred, appointed by Councilmember Lunaparra, District 7
Hauser, Savlan, appointed by Councilmember Droste, District 8
Ghosh, Barnali, Vice Chair, appointed by Mayor Arreguín
- 2. Land Acknowledgement:** The City of Berkeley recognizes that the community we live in was built on the territory of xučyun (Huchiun (Hooch-yoon)), the ancestral and unceded land of the Chochenyo (Cho-chen-yo)-speaking Ohlone (Oh-low-nee) people, the ancestors and descendants of the sovereign Verona Band of Alameda County. This land was and continues to be of great importance to all of the Ohlone Tribes and descendants of the Verona Band. As we begin our meeting tonight, we acknowledge and honor the original inhabitants of Berkeley, the documented 5,000-year history of a vibrant community at the West Berkeley Shellmound, and the Ohlone people who continue to reside in the East Bay. We recognize that Berkeley’s residents have and continue to benefit from the use and occupation of this unceded stolen land since the City of Berkeley’s incorporation in 1878. As stewards of the laws regulating the City of Berkeley, it is not only vital that we recognize the history of this land, but also recognize that the Ohlone people are present members of Berkeley and other East Bay communities today. The City of Berkeley will continue to build relationships with the Lisjan Tribe and to create meaningful actions that uphold the intention of this land acknowledgement.

- 3. **Order of Agenda:** The Commission may rearrange the agenda or place items on the Consent Calendar.
- 4. **Public Comment:** Comments on subjects not included on the agenda. Speakers may comment on agenda items when the Commission hears those items. (See “Public Testimony Guidelines” below):
- 5. **Planning Staff Report:** In addition to the items below, additional matters may be reported at the meeting. **Next Commission meeting: July 17, 2024**
- 6. **Chairperson’s Report:** Report by Planning Commission Chair.
- 7. **Committee Reports:** Reports by Commission committees or liaisons. In addition to the items below, additional matters may be reported at the meeting.
- 8. **Approval of Minutes:** Approval of Draft Minutes from the regular meeting on May 1, 2024.
- 9. **Future Agenda Items and Other Planning-Related Events:** None.

AGENDA ITEMS: All agenda items are for discussion and possible action. Public Hearing items require hearing prior to Commission action.

- 10. **Discussion:** **Draft Local Hazard Mitigation Plan**
Recommendation: Receive a presentation on the status of the Local Hazard Mitigation Plan (LHMP), take public comment, and provide feedback to staff.
Written Materials: N/A.
Presentation: N/A.
- 11. **Discussion:** **General Plan Update: Disaster Preparedness & Safety, Environmental Justice, and Climate Metrics**
Recommendation: Receive a presentation on the status of the General Plan update and discuss.
Written Materials: N/A.
Presentation: N/A.

ADDITIONAL AGENDA ITEMS: In compliance with Brown Act regulations, no action may be taken on these items. However, discussion may occur at this meeting upon Commissioner request.

Information Items: May 22, 2024 – The Public Health Department is conducting a Community Health Assessment (CHA) and Community Health Improvement Plan (CHIP).

Communications:

- General

Late Communications: (Received after the packet deadline):

Late Communications: (Received and distributed at the meeting):

ADJOURNMENT**Meeting Procedures****Public Testimony Guidelines:**

Speakers are customarily allotted up to two minutes each and may not cede their time to another speaker. The Commission Chair may limit the number of speakers and the length of time allowed to each speaker to ensure adequate time for all items on the Agenda. **To speak during Public Comment or during a Public Hearing, please line up behind the microphone.** Customarily, speakers are asked to address agenda items when the items are before the Commission rather than during the general public comment period. Speakers are encouraged to submit comments in writing. See "Procedures for Correspondence to the Commissioners" below.

Consent Calendar Guidelines:

The Consent Calendar allows the Commission to take action with no discussion on projects to which no one objects. The Commission may place items on the Consent Calendar if no one present wishes to testify on an item. Anyone present who wishes to speak on an item should submit a speaker card prior to the start of the meeting, or raise his or her hand and advise the Chairperson, and the item will be pulled from the Consent Calendar for public comment and discussion prior to action.

Procedures for Correspondence to the Commissioners:

To distribute correspondence to Commissioners prior to the meeting date, submit comments by 12:00 p.m. (noon), eight days before the meeting day (Tuesday) (email preferred):

- If correspondence is more than 20 pages, requires printing of color pages, or includes pages larger than 8.5x11 inches, please provide 15 copies.
- Any correspondence received after this deadline will be given to Commissioners on the day just prior to the meeting.
- Staff will not deliver to Commissioners any additional written (or emailed) materials received after 12:00 p.m. (noon) on the day of the meeting.
- Members of the public may submit written comments themselves early in the meeting. To distribute correspondence at the meeting, please provide 15 copies and submit to the Planning Commission Secretary just before, or at the beginning of, the meeting.
- Written comments should be directed to the Planning Commission Secretary, at the Land Use Planning Division (Attn: Planning Commission Secretary).

Communications are Public Records: Communications to Berkeley boards, commissions, or committees are public records and will become part of the City's electronic records, which are accessible through the City's website. **Please note: e-mail addresses, names, addresses, and other contact information are not required, but if included in any communication to a City board, commission, or committee, will become part of the public record.** If you do not want your e-mail address or any other contact information to be made public, you may deliver communications via U.S. Postal Service, or in person, to the Secretary of the relevant board, commission, or committee. If you do not want your contact information included in the public record, please do not include that information in your communication. Please contact the Secretary to the relevant board, commission, or committee for further information.

Written material may be viewed in advance of the meeting at the Department of Planning & Development, Permit Service Center, **1947 Center Street, 3rd Floor**, during regular business hours.

Note: If you object to a project or to any City action or procedure relating to a project application, any lawsuit which you may later file may be limited to those issues raised by you or someone else in the public hearing on the project, or in written communication delivered at or prior to the public hearing. The time limit within which to commence any lawsuit or legal challenge related to these applications is governed by Section 1094.6, of the Code of Civil Procedure, unless a shorter limitations period is specified by any other provision. Under Section 1094.6, any lawsuit or legal challenge to any quasi-adjudicative decision made by the City must be filed no later than the 90th day following the date on which such decision becomes final. Any lawsuit or legal challenge, which is not filed within that 90-day period, will be barred.

Meeting Access: This meeting is being held in a wheelchair accessible location. To request a disability-related accommodation(s) to participate in the meeting, including auxiliary aids or services, please contact the Disability Services Specialist, at 981-6418 (V) or 981-6347 (TDD), at least three business days before the meeting date.

Please refrain from wearing scented products to public meetings.



Planning Commission

**DRAFT MINUTES OF THE REGULAR PLANNING COMMISSION MEETING
May 1, 2024**

The meeting was called to order at 6:07 p.m.

Location: North Berkeley Senior Center, 1901 Hearst Avenue, Berkeley, CA 94709

ROLL CALL:

Commissioners Present: Blaine Merker, Jeff Vincent, Chip Moore, Christina Oatfield, Shannon Allen, Alfred Twu, and Savlan Hauser.

Commissioner Absent: Elisa Mikiten (excused), Emily Marthinsen (excused), and Barnali Ghosh (excused).

Staff Present: Secretary Alisa Shen, Clerk Zoe Covello, Justin Horner, Brian Garvey, Eleanor Hollander, and Liz Redman Cleveland.

LAND ACKNOWLEDGEMENT.

The City of Berkeley recognizes that the community we live in was built on the territory of xučyun (Huchiun (Hooch-yoon)), the ancestral and unceded land of the Chochenyo (Chochen-yo)-speaking Ohlone (Oh-low-nee) people, the ancestors and descendants of the sovereign Verona Band of Alameda County. This land was and continues to be of great importance to all of the Ohlone Tribes and descendants of the Verona Band. As we begin our meeting tonight, we acknowledge and honor the original inhabitants of Berkeley, the documented 5,000-year history of a vibrant community at the West Berkeley Shellmound, and the Ohlone people who continue to reside in the East Bay. We recognize that Berkeley's residents have and continue to benefit from the use and occupation of this unceded stolen land since the City of Berkeley's incorporation in 1878. As stewards of the laws regulating the City of Berkeley, it is not only vital that we recognize the history of this land, but also recognize that the Ohlone people are present members of Berkeley and other East Bay communities today. The City of Berkeley will continue to build relationships with the Lisjan Tribe and to create meaningful actions that uphold the intention of this land acknowledgement.

ORDER OF AGENDA: No changes.

PUBLIC COMMENT PERIOD: 0.

PLANNING STAFF REPORT:

- 33 • Welcome Brian Garvey, clerk of ZAB, who will be rotating into clerking for the
- 34 Planning Commission.
- 35 • Justin Horner was recently promoted to Principal Planner, and will be co-secretary of
- 36 the Planning Commission.
- 37 ○ Justin will be secretary for June, July, and September. Reminder that there is
- 38 no meeting in August
- 39 • There are two meetings scheduled in June:
- 40 ○ June 5
- 41 1. Housing staff and consultants will present analysis on changes to
- 42 affordable housing in lieu fee, as well as discrete change to Berkeley
- 43 municipal ordinance (this will be a public hearing)
- 44 a. There will first be a work session schedule with City Council on
- 45 May 21
- 46 2. Office of Emergency Services staff will present on the draft Local
- 47 Hazard Mitigation Plan
- 48 3. Planning staff will present on the new Safety Element Update,
- 49 Environmental Justice Element, and Equitable Climate and Resilience
- 50 Metrics project
- 51 ○ June 26 – Special Meeting
- 52 1. Draft manufacturing Research and Development zoning district and the
- 53 draft EIR for the zone (this will be a public hearing)
- 54 a. This was first presented in February 2023
- 55 b. Ranked by council as #1 referral
- 56 c. It must be brought at this time to align with the public comment
- 57 period
- 58 • Reminder that the subsequent meeting is July 17
- 59 • In the supplemental communication packet is a notice of a City Council public hearing
- 60 to review the City’s Annual Action Plan for program year 2024 (required by the U.S.
- 61 Department of Housing and Urban Development).

62 **Information Items:** None.

63 **Communications:**

- 64 • None.

65 **Late Communications:**

- 66 • Supplemental 1.

67

68 • **CHAIR REPORT:**

- 69 • None.

- 70 • **COMMITTEE REPORT:** Reports by Commission committees or liaisons. In addition to the
71 items below, additional matters may be reported at the meeting.

- 72
- 73 • None.

74 **8. APPROVAL OF MINUTES:**

75 Motion/Second/Carried (Oatfield/Hauser) to approve the Planning Commission Meeting
76 Minutes from April 3, 2024.

77

78 Ayes: Vincent, Moore, Oatfield, Allen, Twu, and Hauser. Noes: None. Abstain: Merker. Absent:
79 Marthinsen and Ghosh. (6-0-1-2)

80

81 **9. OTHER PLANNING RELATED EVENTS:**

- 82 • Commissioner Merker shared that Will “Trav” Travis passed away last week. Mr.
83 Travis was head of the San Francisco Bay Conservation and Development
84 Commission (BCDC) for many years and was actively engaged in the North Berkeley
85 BART station redevelopment project as a resident of North Berkeley. Commissioner
86 Merker expressed that he hopes Mr. Travis’s visioning and advocacy has made it
87 into the project.

88

89 **AGENDA ITEMS**

90 **10. Discussion: Keep Innovation in Berkeley**

91 Economic Development Manager Eleanor Hollander and Chief Strategist for Sustainable Growth
92 Elizabeth Redman Cleveland presented on the Keep Innovation in Berkeley Council referral and
93 proposed zoning ordinance amendments. The Commissioners took public comment, asked
94 questions, and provided feedback on the proposed amendments.

95 **Public Comments: 6**

96 Motion/Second/Carried (Vincent/Moore) to adjourn the meeting at 7:58 pm.

97

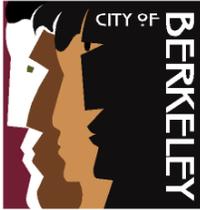
98 Ayes: Merker, Vincent, Moore, Oatfield, Allen, Twu, and Hauser. Noes: None. Abstain: None.
99 Absent: Marthinsen and Ghosh. (7-0-0-2)

100

101 **Members in the public in attendance: 10**

102 **Public Speakers: 6**

103 **Length of the meeting: 1 hr 51 min**



Office of Emergency Services

May 24, 2024

To: Planning Commission
From: Jamie Albrecht, Emergency Services Coordinator
Subject: 2024 Update to the Local Hazard Mitigation Plan;
Release of First Draft Plan

The First Draft of the City's 2024 Local Hazard Mitigation Plan (LHMP) update has been released on the City's website (www.BerkeleyCA.gov/Mitigation). The document's Executive Summary and Actions are attached to this letter.

Plan Content

The LHMP identifies natural hazards in Berkeley and outlines a five-year strategy to further protect Berkeley's people, buildings, infrastructure, and environment from those hazards. The City began updating the LHMP in early 2023. This update effort will allow Berkeley to apply for federal mitigation grant programs and State funding, and is anticipated to be complete at the end of 2024.

The content of the LHMP is dictated by State and federal requirements and focuses on City actions to reduce risks. In an effort to make the LHMP more relevant and accessible to community members, staff created a new section called "Berkeley Household Risk Reduction" designed to offer clear steps people can take to mitigate risks in their own households. Staff also want to acknowledge all the work community members do to contribute to collective risk reduction in Berkeley by taking these actions.

Commission Review

All City Commissions are welcome to review the First Draft Plan. Commissions interested in providing feedback must submit it to mitigation@berkeleyca.gov by July 31, 2024. Staff will review the feedback and incorporate appropriate edits into the Final Draft Plan.

Staff will present on the First Draft Plan at the Planning Commission's June 5 meeting and the Disaster and Fire Safety Commission's June 26 meeting.

Page 2

May 24, 2024

Re: 2024 Update to the Local Hazard Mitigation Plan; Release of First Draft Plan

Community Review

The First Draft Plan has been posted for review and comment on the City website (www.BerkeleyCA.gov/Mitigation). Staff recognize that it is difficult to engage with long documents, such as the LHMP. In an effort to support community review of the materials, the website also has detailed videos about each hazard included in the LHMP. The videos describe each hazard, its impacts, actions the City is taking to reduce risk, and recommend actions that community members can take to reduce risk in their own lives.

Members of the public are invited to provide written feedback on the document until July 31, 2024.

Written feedback can be submitted:

- a) Via email to mitigation@berkeleyca.gov
- b) Via postal mail to:
 - Fire Department – Office of Emergency Services
 - Attn: Mitigation Plan
 - 2100 Martin Luther King, Jr. Way, 2nd Floor
 - Berkeley, CA 94704
- c) In-person during business hours to the Fire Department – Office of Emergency Services at the address above.
- d) In-person at Public Review Workshops:
 - a. Monday, June 3, 5:30 pm to 7:30 pm at the Central Library, in The Commons
 - b. Saturday, July 20, 10 am to 12pm at the Tarea Hall Pittman South Branch Library

Following the public review process for the First Draft Plan, staff will review community member feedback and will incorporate appropriate edits into the Final Draft Plan. Staff will concurrently develop an outline of edits made based on Commission and community feedback.

The Final Draft Plan will undergo review first by the State of California Office of Emergency Services, and then the Federal Emergency Management Agency (FEMA). Staff will make changes to the plan as required by these State and federal bodies.

Adoption

In winter 2024 (est.), staff will post the Final Draft Plan, including any State and federal edits, to the City website. At that time, staff will present the Final Draft Plan to the Disaster and Fire Safety Commission and the Planning Commission, requesting their recommendations to the Council on the plan. The Planning Commission meeting will also serve as the First Public Hearing for the plan. Staff anticipates bringing the Final Draft Plan to the City Council for review and adoption in December 2024.

Page 3

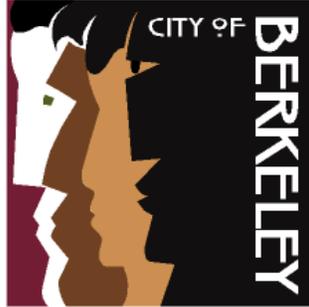
May 24, 2024

Re: 2024 Update to the Local Hazard Mitigation Plan; Release of First Draft Plan

Commission Secretaries will serve as their Commissions' point of contact for this project. Please contact Jamie Albrecht, Emergency Services Coordinator (x5514), with questions.

Attachments:

1. 2024 Local Hazard Mitigation Plan: First Draft Executive Summary and Actions



City of Berkeley

2024

Local Hazard Mitigation Plan

DRAFT

May 24, 2024

Executive Summary

Berkeley is a vibrant and unique community. But every aspect of the city – its economic prosperity, social and cultural diversity, and historic character – could be dramatically altered by a disaster. While we cannot prevent natural hazards, we can anticipate their many impacts and take steps to reduce those harms to our infrastructure, environment, and community. We can make sure that the Berkeley that emerges after a disaster continues to reflect our current values.

The federal Disaster Mitigation Act of 2000 (DMA 2000) calls for all communities to prepare mitigation plans every five years. City government and community members have been working together for years to address certain aspects of disaster risk – such as strengthening structures and managing vegetation to reduce fire risk. The 2004 Disaster Mitigation Plan formalized this process for the first time, ensuring that these activities continued to be explored and improved over time. The 2014 and 2019 Local Hazard Mitigation Plans continued this ongoing process to evaluate the risks that different hazards pose to Berkeley, and to engage the community in dialogue to identify the most important steps that the City, its partners, and residents should pursue to reduce these risks. Over many years, this constant focus on disasters has made the Berkeley community much safer.

The City adopted a plan that met the requirements of DMA 2000 on June 22, 2004, and an update in December 2014 and 2019. This is the first draft of the 2024 update to that plan, called the 2024 Local Hazard Mitigation Plan (2024 LHMP).

Plan Purpose

The 2024 LHMP serves four functions:

1. The 2024 LHMP documents our current understanding of the hazards present in Berkeley, along with our vulnerabilities to each hazard – the ways that the hazard could impact our buildings, infrastructure, community, and environment.
2. The document presents Berkeley City government’s Mitigation Strategy for the coming five years. The Mitigation Strategy reflects a wide variety of both funded and unfunded actions, each of which could reduce the Berkeley’s hazard vulnerabilities.
3. In addition to presenting a City-level mitigation strategy, the document outlines Actions that Berkeley community members can and do take at the household level to reduce their own vulnerabilities to hazards in Berkeley. While these household-level actions are not a requirement of the DMA 2000, including these details makes the plan’s risk assessment more immediately relevant to community members, also acknowledging the work they do to reduce our collective risk.
4. By fulfilling requirements of the DMA 2000, the 2024 LHMP ensures that Berkeley will remain eligible to apply for mitigation grant funding before disasters, and to receive federal mitigation funding and additional State recovery funding after disasters.

Plan Organization

The 2024 LHMP has been structured to specifically address DMA 2000 requirements as well as recent updates to these requirements from the Federal Emergency Management Agency. The 2024 LHMP is organized as follows:

Element A: Planning Process

This section of the 2024 LHMP describes the process used to develop the document, including how partners, stakeholders, and the community were engaged. It also addresses the City's approach to monitoring the 2024 LHMP over the five-year planning cycle.

Element B: Risk Assessment

This section of the 2024 LHMP outlines the different hazards present in Berkeley. Analysis of each hazard includes a description, the locations in Berkeley with exposure to the hazard, previous occurrences, probability of the hazard occurring in the future, Berkeley's vulnerabilities, and the potential impacts. This section also now includes actions that individual community members and households can take to reduce their risks.

Element C: Mitigation Strategy

The Mitigation Strategy section first documents the authorities, policies, programs, and resources that the City brings to bear in implementing mitigation actions. Second, this section outlines a comprehensive range of specific mitigation actions and projects designed to reduce Berkeley's hazard vulnerabilities. This section also describes how the 2024 LHMP is integrated with other City plans.

Element D: Plan Maintenance

This section describes how public participation in the plan maintenance process will continue as well as the methods and schedule for keeping the plan current. It also provides a detailed description of how the 2024 LHMP will be integrated into other planning mechanisms.

Element E: Plan Update

This section describes how changes in development and priorities have influenced updates to the 2024 LHMP. It also provides a detailed description of Berkeley's progress on the Mitigation Strategy adopted in the 2019 LHMP.

Element F: Plan Adoption

This section will be used to document formal adoption of the Final Draft 2024 LHMP by the Berkeley City Council.

Element G: Community Education

This section is new in the 2024 LHMP and is not a FEMA requirement. It includes information on what the City has done to make the risk assessment and mitigation strategy more applicable and accessible to community members. This section includes links to educational resources.

In the pages that follow, this Executive Summary describes highlights from Element B: *Risk Assessment* and Element C: *Mitigation Strategy*, as well as key updates that were made to the section since the 2019 version.

Element B: Risk Assessment

Berkeley is exposed to a number of hazards that vary in their intensity and potential impacts. This mitigation plan addresses the following hazards: earthquake, wildland-urban interface (WUI) fire, extreme heat, poor air quality, high wind, rainfall-triggered landslide, tsunami, flood, sea level rise, utility interruption, hazardous materials release, and infectious disease. Each of these hazards can occur independently or in combination, and can also trigger secondary hazards.

Climate change was included as a separate hazard of concern in the previous versions of this plan. However, in this update, climate change has been integrated throughout the plan and into every hazard of concern. Climate change will continue to increase the likelihood and the severity of the hazards outlined in this place.

Table 1. Summary of Hazard Analysis

Hazard	Likelihood	Severity of Impact
Earthquake	Likely	Catastrophic
Wildland-Urban Interface Fire	Likely	Catastrophic
Extreme Heat	Likely	Moderate to Catastrophic
Poor Air Quality	Likely	Minor
High Wind	Likely	Minor
Rainfall-Triggered Landslide	Likely	Minor to Catastrophic
Tsunami	Possible	Minor to Catastrophic
Floods	Likely	Minor
Sea Level Rise	Likely	Minor to Major
Utility Interruption	Likely	Minor to Major
Hazardous Materials Release	Likely	Minor to Catastrophic
Infectious Disease	Likely	Minor to Catastrophic

Earthquake

The United States Geological Survey states that there is a 72% probability of one or more M 6.7 or greater earthquakes from 2014 to 2043 in the San Francisco Bay Region. There is a 33% chance that a 6.7 or greater will occur on the Hayward fault system between 2014 and 2043.¹ This means that many Berkeley residents are likely to experience a severe earthquake in their lifetime.

A catastrophic earthquake on the Hayward Fault would cause severe and violent shaking and three types of ground failure in Berkeley. Surface fault rupture could occur in the Berkeley hills along the fault, damaging infrastructure and utilities that cross the fault. Landslides are expected in the Berkeley hills during the next major earthquake, particularly if the earthquake occurs during the rainy winter months. Landslide movement could range from a few inches to tens of feet. Ground surface displacements as small as a few inches are enough to break typical foundations. Liquefaction is very likely in the westernmost parts of the city and could occur in much of the Berkeley flats. Liquefaction can destroy pavement, dislodge foundations, and damage underground and aboveground infrastructure.

Shaking and ground failure are likely to create impacts that ignite post-earthquake fires. Firefighting efforts will be simultaneously challenged due to broken water mains and damage to electrical, transportation, and communication infrastructure.

In a 6.9 magnitude earthquake on the Hayward Fault, the City estimates that over 600 buildings in Berkeley will be completely destroyed and over 20,000 more will be damaged. One thousand to 4,000 families may need temporary shelter. Depending on the disaster scenario, one hundred people could be killed in Berkeley alone, and many more would be injured. Commercial buildings, utilities, and public roads will be disabled or destroyed. This plan estimates that building damage in Berkeley alone could exceed \$2 billion, out of a multi-billion-dollar regional loss, with losses to business activities and infrastructure adding to this figure.

Low-income housing units are expected to be damaged at a higher rate than other residences. Other types of housing, such as condominiums, may replace them when land owners rebuild. This could lead to profound demographic shifts in Berkeley.

Wildland-Urban Interface Fire

Fire has always been a natural part of the California and East Bay wildland ecosystem. Fire has historically been a way to maintain forest health, to control invasive species, and to provide a rich habitat for wildlife. In Berkeley, densely-built homes and vegetation have been introduced to hillside areas that otherwise required burning to maintain ecological balance. For many years people have tried to prevent fire in forests and developed areas, disrupting this balance. As a result, catastrophic fires are now occurring throughout the Bay Area and the world.

There are two primary types of wildfire: “wildland” fire and “wildland-urban interface” (WUI) fire. WUI fires, the primary concern in Berkeley, occur where the natural landscape and urban-built environment meet or intermix. It is especially difficult to control a fire in the wildland-urban interface, where homes and other infrastructure are close to and within wildland areas.

Increased structure density exacerbates wildland-urban interface fire risk. The rate of structure-to-structure ignitions increases when there are more structures per acre. More than two structures per acre is considered high density in the WUI; most areas of the Berkeley hills have at least 2 structures per acre.² Areas of the north Berkeley hills and around Panoramic Hill more than four structures per acre. The density of Berkeley's hills areas will be a critical factor in fire spread.

Minimal separation between structures also increase fire risk. Structures that are less than 25 feet apart are at extreme risk of directly spreading fire to one another, in a process called "structure-to-structure ignition." Fires in denser areas will have high rates of structure-to-structure ignition and high risk of losses. In Berkeley many structures are less than 25 feet apart, which places the community in the highest risk category.

Berkeley is vulnerable to a wind-driven fire starting along the city's eastern border. The fire risk facing the people and properties in the eastern hills is compounded by the area's mountainous topography, minimal access and egress routes, and location, overlaid upon the Hayward Fault. Berkeley's flatlands are also exposed to a fire that spreads west from the hills.

The extent and intensity of a WUI fire is closely tied to weather conditions and fuel moisture. Fires that ignite under periodic conditions of "Red Flag Warning" or "Extreme Fire Weather" may result in uncontrollable firestorms. During Extreme Fire Weather, when a fire builds to this magnitude and travels with such extreme speed and force, firefighters' primary focus often shifts from firefighting to supporting evacuations. This is because during this type of weather, some normally-available firefighting tools can be ineffective or even unusable – like planes and helicopters, which need to be grounded during high winds.

The Berkeley Hills have narrow, windy roads that make evacuation difficult, which is why the Berkeley Fire Department recommends that people leave the hills during Extreme Fire Weather. While the ignition risk is highest in the Berkeley Hills, a wind-driven fire under Extreme Fire Weather can blow through the Berkeley flats, all the way to the Bay.

Extreme Heat

In Berkeley, an extreme heat day is a day above 88.3 degrees Fahrenheit (F). Climate models from the Cal-Adapt tool³ from the California Energy Commission predict the average number of extreme heat days (above 88.3 degrees F) in Berkeley to continually increase by the end of the century. The specific number of extreme heat days expected in Berkeley depends on the level of greenhouse gases (GHGs) emitted from human activities into the atmosphere.

Extreme heat is a major public health concern with most impacts being on human health, especially on marginalized populations. Public health impacts associated with extreme heat events include premature death, cardiovascular stress and failure, and heat-related illnesses such as heat stroke, heat exhaustion, and kidney stones.⁴ Studies have also found links between rising temperatures and a range of mental health issues including mental fatigue, aggression, and even higher rates of suicide.⁵

Berkeley has regularly experienced extreme heat events since 2017, which have included impacts such as heat-related deaths, power outages, and poor air quality.

Poor Air Quality

Poor air quality is a growing concern in Berkeley and in California. According to the California Air Resources Board, 90% of Californians breathe unhealthy levels of outdoor air during some parts of the year. Poor air quality can irritate the eyes, nose, and throat, cause shortness of breath, aggravate asthma and other respiratory conditions, and affect the heart and cardiovascular system.

Poor air quality can last for a few hours or a few weeks, depending on its source. It can also be a chronic issue, for example in places near industry or highways. Southerland et al., published a study in 2021⁶ on the harmful impacts of pollution in the Bay Area. According to these estimates, more than 2,500 people die and 5,200 children develop asthma every year due to traffic-related air pollution exposure in the Bay Area.

Everyone in Berkeley can be impacted by poor air quality – some neighborhoods experience moderate or unhealthy air quality on a regular basis due to proximity to various sources of pollutants like highways and industry, and there have also been several extreme examples of poor air quality that impacted the entire City due to nearby wildfires. The air quality can also change quickly due to weather conditions, such as rain or wind.

High Wind

The National Weather Service (NWS) defines “high winds” as: sustained wind speeds of 40 miles per hour (mph) or greater lasting for one hour or longer, or wind gusts of 58 mph or greater for any duration.

In Berkeley, high wind events are typically associated with the seasons. In the winter, high winds come with weather systems and cold fronts, generally between November through March. In the summer, temperature and pressure differences between the Pacific Ocean and the interior valleys to Berkeley’s east create stronger afternoon and evening winds coming from the west.

Primarily in the fall, dry offshore foehn winds, known as the “Diablo Winds,” occur. Diablo Winds are associated with fire weather. Using data collected by observational instruments placed at the Lawrence Berkeley National Lab, we identified several days with sustained winds exceeding 25 miles per hour in Berkeley.

As temperatures increase worldwide due to climate change, changes in rising sea levels, humidity, and storminess are unavoidable as the physical processes are all interlinked. Given the prevalence of previous high-wind events, it is expected that each year will bring more.

High winds are dangerous to people, structures, and systems.

Rainfall-Triggered Landslide

Berkeley has a number of deep-seated landslides in the hills that continuously move, with the rate of movement affected by rainfall and groundwater conditions. Significant localized areas of the Berkeley hills face risk from landslide, and a major slide could endanger lives and impact scores of properties, utilities and infrastructure.

Tsunami

Tsunamis, though rare inside the San Francisco Bay, can occur from large offshore subduction style earthquakes around the Pacific Rim. Small, local tsunamis can also result from offshore strike-slip faults such as parts of the San Andreas Fault of the Peninsula and the Hayward Fault through San Pablo Bay. The March 2011 Japan earthquake generated a devastating tsunami, which reached the Bay Area and caused minor damage to docks and floats in the Berkeley Marina. A larger tsunami could impact much more of Berkeley's western shores. Berkeley's maritime community, which would be greatly impacted, includes low income individuals and households. Buildings, infrastructure, and roadways could be damaged, and debris and hazardous materials could cause post-tsunami fires. Deaths are possible if individuals choose not to evacuate hazardous areas, do not understand tsunami warnings, or are unable to evacuate.

Floods

In Berkeley, three types of flooding typically occur: coastal flooding, creek flooding, and storm drain overflow. Creek flooding in Berkeley has the potential to affect an estimated 675 structures, mainly in the western, industrial area of the city. It is unlikely that floodwaters will reach higher than three feet, but damages to homes, businesses, and their contents could total over \$201 million. Storm drain overflow creates localized flooding in many known intersections in Berkeley. With few properties covered by flood insurance, these costs would be borne primarily by Berkeley residents and businesses.

Sea Level Rise

Warmer temperatures associated with climate change are causing global sea levels to rise. Recent scientific studies have begun to evaluate the impact of the shallow groundwater rising in low-lying coastal areas (like Berkeley) combined with sea level rise. According to the San Francisco Estuary Institute and the Pathways Climate Institute⁷, as sea levels rise in San Francisco Bay, shallow groundwater underneath low-lying coastal communities will also rise. Sea level rise and rising groundwater can damage buildings, transportation infrastructure, sewer and water systems, natural resources and ecosystems. Sea level rise will have disproportionate impacts on disadvantaged communities in Berkeley. The areas most likely to experience flooding with increased sea level rise are in West Berkeley, which has a higher percentage of communities of color and low-income communities.

Utility Interruption

Utility interruption is any loss of a public service including electrical service, telecommunications, wastewater and potable water, and natural gas.

Berkeley residents, visitors, businesses, institutions, and other partners rely on utilities for day-to-day life. Loss of utilities for prolonged period is particularly devastating for people with disabilities, people with access and functional needs, and people with low incomes that may not be able to purchase supplies and or relocate.

Utility interruption can be planned and include a warning, such as with PG&E Public Safety Power Shutoffs that proactively turn off electricity to mitigate wildfire risk, or come a secondary impact of the other natural hazards included in this plan. Utility interruption can also occur without a preceding natural hazard, for example maintenance and repair or accidental damage. The extent and severity of utility interruption depends on many factors, including cause, location, duration, and time of year. The probability of utility interruption is high, given the number of systems, aging infrastructure, and the variety of possible natural hazards.

Hazardous Materials Release

The City has identified fifteen facilities in Berkeley with sufficiently large quantities of toxic chemicals to pose a high risk to the community. Hazardous materials also travel through Berkeley by truck and rail. Natural hazards identified in the plan could trigger the release of hazardous materials. Over the last 25 years, Berkeley has seen a more than 90 percent reduction in the number of facilities with extremely hazardous materials. The City carefully tracks hazardous materials within its borders, and works closely with companies using large amounts of potentially dangerous materials.

Infectious Disease

Infectious diseases are illnesses caused by germs, such as bacteria, viruses, and fungi. They enter the body, multiply and cause an infection. Some infectious diseases are contagious, meaning they can spread from one person to another. The State of California has a list of over 95 communicable diseases that must be reported by healthcare providers or laboratories to local public health officials. All people in Berkeley are susceptible to infectious diseases. The populations at the highest risk for infectious diseases are the very young, the elderly, or individuals who are immunocompromised. Additionally, higher-poverty neighborhoods of color are at greater risk due to the effects of health and social inequalities.

Infectious diseases vary in their impact and severity. Recent outbreaks since 2019 include the COVID-19 pandemic and clusters of monkeypox virus. In most infectious disease outbreaks, the impact is limited, with the majority of illnesses treatable and the likelihood of fatalities low. Large-scale outbreaks like COVID-19 kill millions of people, completely alter daily life and social activities, threaten businesses and the global economy, strain existing health care facilities.

Access and Functional Needs

This plan recognizes that many individuals that are still disproportionately vulnerable during disasters. People with access and functional needs are defined as community members who may have additional needs before, during and after an incident in functional areas, including but not limited to: maintaining independence, communication, transportation, supervision, and medical care. Individuals in need of additional response assistance may include those who have disabilities, live in institutionalized settings, are elderly, are children, are from diverse cultures, have limited English proficiency, or are non-English speaking, or are transportation disadvantaged. An individual with a disability is defined by the ADA as a person who had a physical or mental impairment that substantially limits one or more major life activities, a person who has a history or record of such an impairment, or a person who is perceived by others as having such an impairment. The ADA does not specifically name all of the impairments that are covered.

Underserved Communities and Marginalized Populations

Disasters also disproportionately impact underserved communities and marginalized populations. For example, people of color and people with low incomes have been historically denied access to housing and resources, increasing their vulnerability to these shocks. The Mitigation Strategy in the 2024 LHMP identifies if or how each Action benefits underserved communities and socially vulnerable populations. The strategy prioritizes those actions that provide benefits to underserved communities and marginalized populations. Further, the 2024 LHMP includes a list of mitigation actions for individuals and households that are designed to be approachable and accessible to people in varying circumstances and with varying resources to draw from.

Summary of Changes to the Risk Assessment

The 2024 LHMP contains numerous updates to facts, figures, and descriptions. The City has incorporated the newest-available hazard data and incorporated new hazards into the Plan. The City and its partners have provided additional descriptions, details, and definitions to explain the science of these hazards and their potential impacts.

Within the previous events section for each hazard, the City has added information about any instances of the hazard affecting Berkeley since 2019. Throughout the plan, the City has updated financial loss estimates for inflation.

In some hazard sections, Risk and Loss Estimates include analysis from the Government Finance Officers Association (GFOA). GFOA is a nonprofit association of more than 23,000 state and local government finance professionals and elected officials from across North America. The City of Berkeley has been assessing the potential impacts of extreme events, like natural disasters, on the City government's financial condition, particularly its reserve levels for the General Fund. The City engaged the GFOA to produce a recommendation to help it decide the appropriate reserve level for the general fund, given the risks from extreme events. A key part of GFOA's mission is to promote best practices in public finance, including reserve policies. The analysis by GFOA also shed light on the potential broader economic losses to the community from the risks posed by extreme events.

Hazards Described in the 2024 Plan

For the first time, the plan identifies poor air quality, high wind, sea level rise, utility interruption, and infectious disease as hazards of concern. Significant changes and updates to the analysis of each hazard are described below:

Earthquake (Section B.2)

- The Earthquake section has been pared down to improve readability.
- The descriptions of vulnerable building types have been updated and now include photos.
- The map of potentially vulnerable buildings in Berkeley has been updated.

Wildland-Urban Interface Fire (Section B.3)

- This section has been updated to include the following:
 - Information about the Berkeley Overnight Camps and their fire risk.
 - Information about the 2017 Grizzly Fire.
 - A detailed description of fire weather, outlining Red Flag and Extreme Fire Weather days.
 - New data and narrative about wildfire risk in Berkeley from the National Institutes of Standards and Technology and East Bay Regional Parks.
- This section has been updated to include the following new maps that better contextualize the wildfire risk in Berkeley:
 - Fire Hazard Severity Zones in State Responsibility Area from Cal Fire
 - City of Berkeley Fire Zones 1, 2, and 3
 - Wildfire Hazard Map for Fire Prevention Planning which classifies the hazard from lowest to highest
 - Density of Structures in Berkeley Fire Zones 2 and 3
 - Wildfire Risk to Structures Map which combines the hazard classification with structure density to show the areas of higher wildfire risk to structures
 - Distance Between Structures in Berkeley Fire Zones 2 and 3
 - An updated map of the 1923 fire boundary

Extreme Heat Events (Section B.4)

- This section has been updated to include the following:
 - Information and a map showing thermal belting, the phenomenon where the Berkeley hills has higher temperatures than the rest of the city.
 - Graphics about forecasting heat risk.
 - Extreme heat events since 2019 in Berkeley.
 - Data and a map of excess emergency rooms visits on extreme heat days by zip code have been included demonstrating higher rates for people in central, south, and west Berkeley.
 - A map of cooling center locations in Berkeley.
 - New data for potential impacts and losses from a study of the 2006 heat wave in California showing the excess statewide healthcare costs and premature deaths.

Poor Air Quality (Section B.5)

- Poor air quality events are a newly-introduced hazard of concern for the 2024 LHMP.
- The poor air quality section describes the factors that contribute to poor air quality, how it is measured, and how it can concentrate in the Berkeley hills due to marine layer inversion. It also describes the chronic poor air quality issues from industry and transportation infrastructure in west and south Berkeley.

High Wind (Section B.6)

- High wind events are a newly introduced hazards of concern for the 2024 LHMP.
- The high wind section describes what constitutes high wind and the seasonality of wind events in Berkeley. High wind events are very closely connected to fire weather. However, high wind in any season can damage trees, infrastructure, and utilities.

Rainfall-Triggered Landslide (Section B.7)

- This section has been updated to include the following:
 - Landslide occurrences in Berkeley since 2019.
 - New maps of Berkeley using data from the California Landslide Inventory and Landslide Susceptibility Classes from the California Department of Conservation.

Tsunami (Section B.8)

- This section has been updated to include the following:
 - A new map of the Tsunami Inundation Zone, which was updated to reflect new science and feedback from local jurisdictions.
 - Updated maps of the Berkeley Tsunami Evacuation Phases from the Tsunami Evacuation Playbooks. These Playbooks, developed by the California Geological Survey, California Governor's Office of Emergency Services, and the National Ocean and Atmospheric Administration (NOAA), reflect more refined and detailed planning, in which forecasted tsunami amplitudes, storm surge, and tidal information can help guide which areas might be inundated in different scenarios, depending on the extent of the event. This analysis uses helps NOAA to better predict inundation areas during actual tsunami events. Local emergency managers can use this information to better target evacuation areas during actual tsunami events.
 - Information about the 2023 tsunami advisory for Berkeley as a result of the underwater volcano eruption near Tonga.
 - New data and maps that show the probability of a tsunami occurring in Berkeley, expressed in 100-year, 200-year, 475-year, and 975-year return periods.
 - New data about the people and structures that might be impacted by a tsunami in Berkeley.

Sea Level Rise (Section B.9)

- Sea level rise is a newly introduced hazard of concern for the 2024 LHMP. It was listed in the 2019 LHMP as a related impact of climate change in that section, but did not have its own section.
- The section provides analysis of amounts of sea level rise anticipated under different projected carbon emissions scenarios, as well as maps of expected levels of inundation

from 2-ft, 4-ft, and 5.5-ft sea level rise scenarios using the Adapting to Rising Tides Bay Shoreline Flood Explorer.

- New studies about shallow groundwater rising and related maps are included.

Floods (Section B.10)

- This section has been updated to include the following:
 - Newly-revised flood exposure map for Berkeley using data from the FEMA National Flood Insurance Program.
 - A map of Community Calls for Service to report storm drain back up during the January 2023 winter storms.
 - Information about the most recent flooding in December 2022 and January 2023, which resulted in a Federal Major Disaster Declaration for Alameda County.

Utility Interruption (Section B.11)

- Utility interruption is a newly introduced hazard of concern for the 2024 LHMP. It was listed as secondary impact of several of the other hazards of concern in the 2019 LHMP. However, utility interruption can occur without a preceding hazard and can cause severe impacts, resulting in it receiving its own section in the 2024 update.
- This section describes the utility systems, who manages them, and what the impacts of interruptions (planned or not) can have on people and infrastructure.

Hazardous Materials Release (Section B.12)

- The Hazardous Materials Release section contains updated figures on the number of sites with hazardous materials in Berkeley.

Infectious Disease (Section B.13)

- Infectious disease is a newly introduced hazard of concern for the 2024 LHMP.
- This section describes infectious diseases, recent occurrences of outbreaks like the COVID-19 pandemic, and the potential impacts on people, daily life, and healthcare infrastructure.

Element C: Mitigation Strategy

Through many years of diligent effort by City government and the community, Berkeley has developed many innovative initiatives to increase our disaster resilience. The authorities, policies, programs and resources that Berkeley will use to support execution of the 2024 LHMP Mitigation strategy include:

- The City has strengthened its ability to serve the community during and after disasters by seismically upgrading or replacing buildings that house critical City functions. In 2022, work was completed on the North Berkeley Senior Center. In 2021, work was completed on the Live Oak Community Center.
- The City has worked diligently to enhance public safety and reduce physical threats from earthquakes by requiring owners of soft story and unreinforced masonry buildings to retrofit their structures.
 - Berkeley was the first city in the nation to inventory the community's soft-story buildings. As of July 2023, 277 buildings have completed their retrofit, 26 still need to be retrofitted, and 61 buildings were removed from the list.
- The City offers a comprehensive suite of programs to encourage the community to strengthen buildings to be more hazard-resistant.
 - In early 2017, the Building and Safety Division developed a new Retrofit Grants program with funding from a Hazard Mitigation Grant from the Federal Emergency Management Agency (FEMA) and the California Governor's Office of Emergency Services (Cal OES). As of August 2023, 63 design grants and 75 construction grants have been disbursed.
 - Since July 2002, the City has distributed over \$12 million to homeowners through the Transfer Tax Rebate Program, which reduces the real estate transfer tax to building owners who perform seismic safety work.
 - The City participates in the Earthquake Brace + Bolt (EBB) program, a grant program administered by the California Earthquake Authority, providing grants of up to \$3,000 for seismic retrofits of owner-occupied residential buildings with 1-4 dwelling units.
- The City, working together with key partners, is using a comprehensive strategy to aggressively mitigate Berkeley's wildland-urban interface (WUI) fire hazard. These approaches include:
 - Prevention through development regulations with strict building and fire code provisions, as well as more restrictive local amendments for new and renovated construction;
 - Enforcement programs including annual inspections with support from the YouthWorks internship program;
 - Providing home hardening and defensible space materials and instructions to low income residents in targeted high risk areas;
 - Natural resource protection through vegetation management programs;
 - Improvement of access and egress routes;
 - Coordinating regional wildfire mitigation strategies with key partners and stakeholders;

- Infrastructure maintenance and improvements to support first responders' efforts to reduce facilitate emergency evacuation and fire spread.
- The City is embarking on an update to the General Plan, including a new Environmental Justice and Safety Element. These processes and documents will build off the 2024 LHMP and Planning Process.
- The City's Office of Emergency Services encourages community readiness and participation in hazard mitigation strategies. Through the 2024 LHMP Planning Process, the City created new videos, guides, and outreach materials intended to support community members in understanding their risks and what actions they can take to reduce risks.

These programs, and many others, place Berkeley as a leader in disaster management. Long-term maintenance and improvements to these programs will support execution of the 2024 LHMP Mitigation strategy, and will help to protect the Berkeley community in our next disaster.

Disaster Mitigation Goals

Berkeley will focus on five goals to reduce and avoid long-term vulnerabilities to the hazards identified in *Element B: Risk Assessment*:

- 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, poor air quality, infectious disease, sea level rise, wind, utility disruption 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. Protect and enhance quality of life in Berkeley.
- D. Connect with residents, community-based organizations, institutions, businesses, and essential lifeline systems in order to increase mitigation actions and disaster resilience in the community.
- E. Co-create mitigation plans, policies, and programs with Berkeley's underserved communities, elevating the voices of these community members and prioritizing their needs to prepare for and adapt to climate change and natural hazards.

Overview of Actions

This plan identifies and analyzes 33 mitigation actions to reduce the impacts from hazards described in Element B: *Risk Assessment*. This suite of actions addresses every natural hazard posing a threat to Berkeley, with an emphasis on new and existing buildings and infrastructure.

Tables 2, 3, and 4 below summarize all of the actions. The tables group actions by their priority level (see Element C.5 for details on prioritization of actions), and identify the hazard(s) and each action addresses.

Table 2. *High-Priority Actions in mitigation strategy*

Action	Hazards
Continue appropriate seismic and fire safety analysis based on current and future use for all City-owned facilities and structures.	Multi-hazard
Strengthen or replace City buildings in the identified prioritized order as funding is available.	Multi-hazard
Reduce hazard vulnerabilities for non-City-owned buildings throughout Berkeley.	Multi-hazard
Implementation of the Retrofit Grants Program which helps Berkeley building owners increase safety and mitigate the risk of damage caused by earthquakes	Earthquake
Continued Implementation of the Soft Story Retrofit Program, which mandates seismic retrofit of soft story buildings with 5+ residential units.	Earthquake
Complete the ongoing program to retrofit all remaining non-complying Unreinforced Masonry (URM) buildings.	Earthquake
Monitor passage and implementation of mandatory seismic retrofit ordinances for concrete buildings in other jurisdictions to assess best practices.	Earthquake
Reduce fire risk in existing development through fire code updates and enforcement.	Wildland-Urban Interface Fire
Reduce fire risk in existing development through vegetation management.	Wildland-Urban Interface Fire
Manage and promote pedestrian evacuation routes in Fire Zones 2 and 3.	Earthquake Wildland-Urban Interface Fire
Improve responder access and community evacuation in Fire Zones 2 and 3 through roadway maintenance and appropriate parking restrictions.	Earthquake Wildland-Urban Interface Fire
Research, identify, and implement infrastructure improvements to facilitate emergency evacuation.	Wildland-Urban Interface Fire Tsunami
Reduce fire risk through utility undergrounding.	Earthquake Wildland-Urban Interface Fire High Winds

Action	Hazards
Work with EBMUD to ensure an adequate water supply during emergencies and disaster recovery.	Earthquake Wildland-Urban Interface Fire
Reduce Berkeley’s vulnerability to extreme heat events and associated hazards.	Extreme Heat Poor Air Quality
Mitigate hazards associated with natural gas usage, including disaster damage and energy service disruption, by minimizing need for energy use and moving toward use of electricity in lieu of natural gas.	Multi-hazard
Mitigate hazardous materials release in Berkeley through inspection and enforcement programs.	Multi-hazard
Maintain City participation in the National Flood Insurance Program.	Floods
Maintain City programs and projects to mitigate the impacts of infectious diseases in Berkeley.	Infectious Disease
Collect, analyze and share information with the Berkeley community about Berkeley hazards and associated risk reduction techniques.	Multi-hazard
Coordinate with and encourage mitigation actions of key City partners.	Multi-hazard
Coordinate regional wildfire mitigation strategies with key partners and stakeholders	Wildland-Urban Interface Fire
Advance equitable community resilience, with a focus on disadvantaged communities.	Multi-hazard

Table 3. Medium-Priority Actions in mitigation strategy

Action	Hazards
Mitigate wildfire risk to Berkeley’s overnight camps.	Wildland-Urban Interface Fire
Reduce Berkeley’s vulnerability to severe storms and associated hazards through proactive research and planning, zoning regulations, and improvements to stormwater drainage facilities.	Landslide Floods
Reduce Berkeley’s vulnerability to extreme heat events and associated hazards.	Extreme Heat Poor Air Quality
Implement energy assurance strategies at critical City facilities.	Multi-hazard
Implement existing City programs, plans, and projects designed to reduce emissions that contribute to poor air quality.	Poor Air Quality Extreme Heat
Mitigate the impacts of sea level rise in Berkeley.	Sea Level Rise Flood

Table 4. Low-Priority Actions in mitigation strategy

Action	Hazards
Mitigate climate change impacts by integrating climate change research and adaptation planning into City operations and services.	Multi-hazard
Collaborate with partners to increase the security of Berkeley’s water supply from climate change impacts.	Multi-hazard
Mitigate Berkeley’s tsunami hazard.	Tsunami
Give priority to project applications that would rebuild to current standards following disasters.	Multi-hazard

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- 1 Detweiler, Shane and Wein, A., 2018, The HayWired Earthquake Scenario – Earthquake Hazards: U.S. Geological Survey Scientific Investigations Report 2017-5013-A-H, p.4
 - 2 Maranghides, A., et al. (2022) WUI Structure/Parcel/Community Fire Hazard Mitigation Methodology. NIST Technical Note 2205. National Institute of Standards and Technology. Gaithersburg, MD. <https://doi.org/10.6028/NIST.TN.2205>
 - 3 <https://cal-adapt.org/about/>
 - 4 California Adaptation Planning Guide, July 2012.
 - 5 Seo, H. (2022, August 19). How heat waves take a toll on Mental Health. The New York Times. <https://www.nytimes.com/2022/08/19/well/mind/heat-mental-health.html>
 - 6 Southerland, et al., 2021. “Assessing the Distribution of Air Pollution Risks within Cities: A Neighborhood-Scale Analysis Leveraging High-Resolution Data Sets in the Bay Area, California.” Environmental Health Perspectives, Volume 129, Issue 3. doi: 10.1289/EHP7679
 - 7 May, C. L.; Mohan, A.; Plane, E.; Ramirez-Lopez, D.; Mak, M.; Luchinsky, L.; Hale, T.; Hill, K. 2022. Shallow Groundwater Response to Sea-Level Rise: Alameda, Marin, San Francisco, and San Mateo Counties. Pathways Climate Institute and San Francisco Estuary Institute. <https://www.sfei.org/documents/shallow-groundwater-response-sea-level-rise-alameda-marin-san-francisco-and-san-mateo>



2024 Local Hazard Mitigation Plan (LHMP)

First Draft Plan

Planning Commission
June 5, 2024

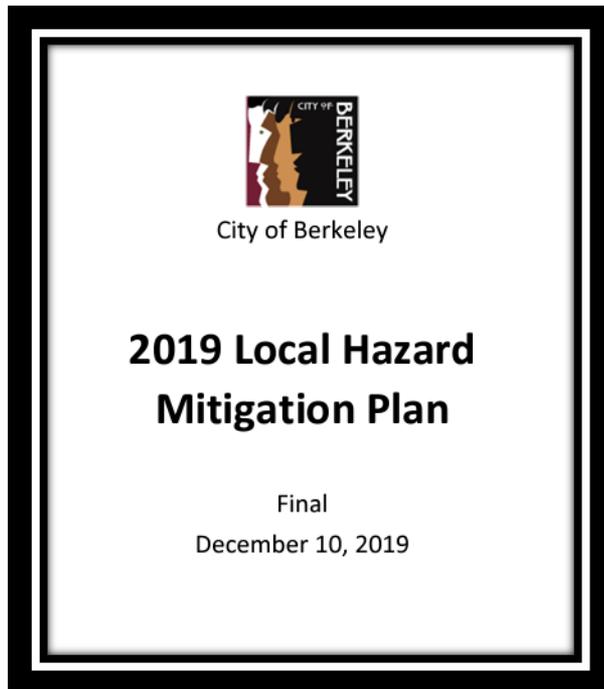


Agenda

- Local Hazard Mitigation Plan (LHMP) Overview
- What is Hazard Mitigation?
- Plan Changes Since 2019
- First Draft Plan: Risk Assessment and Mitigation Strategy Updates
- Public Outreach
- Next Steps



Local Hazard Mitigation Plan



- Appendix to City's General Plan
- Adopted in 2004, 2014, and 2019
- Financial incentives (pre- and post-disaster)
- Public Review for First Draft: May 24 to July 31
- Key Plan Elements
 - B: Risk Assessment
 - C: Mitigation Strategy



What is Hazard Mitigation?



Hazard mitigation breaks the cycle of damage, by taking action now to reduce impacts later.



Image Credit: Boston.gov



Examples of mitigation activities

- Home hardening (like in top photo)
- Strengthening structures (like earthquake retrofits)
- Making land use decisions that will minimize damage
- Reducing vegetation in high-fire areas (like in bottom photo)
- Strapping down water heaters





Major Plan Changes Since 2019



New Hazards Included in the Plan

- High Wind
- Poor Air Quality
- Infectious Disease
- Utility Interruption
- Sea Level Rise



Individual and Household Actions

- Previous versions: Heavy focus on City government actions
- 2024 LHMP: And what can you do?
- Example: Earthquake
 - City: Retrofitting municipal buildings, facilitating grants
 - Household: bolting down furniture





First Draft Plan: Risk Assessment and Strategy Updates



Risk Assessment Summary

Hazard	Likelihood	Severity of Impact
Earthquake	Likely	Catastrophic
Wildland-Urban Interface Fire	Likely	Catastrophic
Extreme Heat	Likely	Moderate to Catastrophic
Poor Air Quality	Likely	Minor
High Wind	Likely	Minor
Rainfall-Triggered Landslide	Likely	Minor to Catastrophic
Tsunami	Possible	Minor to Catastrophic
Sea Level Rise	Likely	Minor to Major
Floods	Likely	Minor
Utility Interruption	Likely	Minor to Major
Hazardous Materials Release	Likely	Minor to Catastrophic
Infectious Disease	Likely	Minor to Catastrophic



Mitigation Strategy Summary

- 33 Actions
- Focus:
 - Current work with funding secured
 - Improvements to buildings, infrastructure, and wildfire mitigation (aligning with the Community Wildfire Protection Plan)
- New actions
 - Mitigating poor air quality, infectious disease, high winds, and utility interruption
 - General Plan - Environmental Justice and Safety Elements



Public Outreach



Engagement Methods

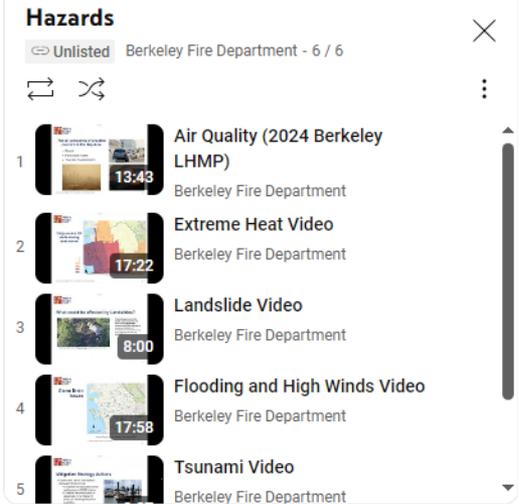
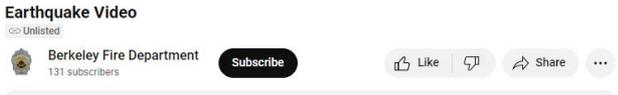
- In-person outreach at various events during the drafting stage, including National Night Out and Solano Stroll
- Two in-person workshops during the drafting stage, including a Winter Weather Workshop and a Tsunami Workshop at the Marina
- Two in-person workshops after First Draft is released
 - June 3 5:30pm – 730pm at Central Library
 - July 20 10am – 12pm at South Berkeley Library
- Detailed hazard videos posted to YouTube
- Presentations to the Planning and Disaster and Fire Safety Commissions, memos to all other Commissions
- Community members are invited to send in feedback via email or in person at the Fire Department





Videos

- LHMP is written to satisfy FEMA requirements, making it long and dense.
- We don't want to just check the box!
 - We want community members to be able to engage with this material, so we made hazard videos.
- You can watch at your leisure and focus on the hazards you're most worried about.
- Videos are designed as both an alternative and a supplement to in-person meetings.
- These videos will remain available even after the LHMP process, continuing to support our outreach about hazards.

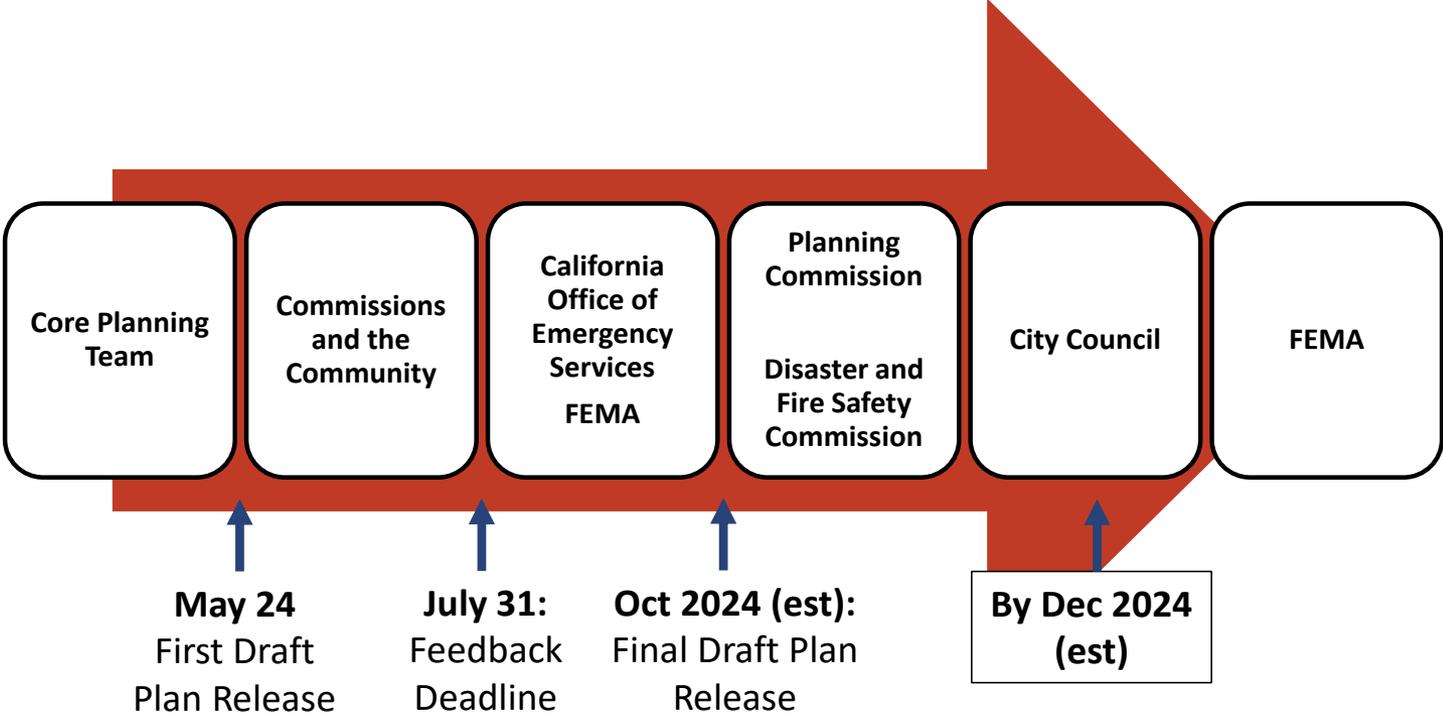




Next Steps



Plan Review and Approval Process





Next Steps

- First Draft 2024 LHMP at www.BerkeleyCa.gov/Mitigation
- Commission and community feedback deadline: July 31, 2024
- Submit written feedback:
 - To Mitigation@berkeleyca.gov
 - Via postal mail to the Fire Department
 - Via business hours drop off at the Fire Department

Internal

5/22/24 Update for Planning Commission by Dr. Anju Goel, Public Health Officer, City of Berkeley

What is a Community Health Assessment (CHA) and a Community Health Improvement Plan (CHIP)?

[CDC](#):

- A community health assessment (CHA) refers to a state, tribal, local, or territorial health assessment that identifies key health needs and issues through systematic, comprehensive data collection, and analysis.
- A community health improvement plan (CHIP) utilizes the results of community health assessment activities and the community health improvement process.

This is the first comprehensive CHA and CHIP for the City of Berkeley. The last health assessment was done in 2018.

Partner: John Snow Inc ([JSI](#)) Berkeley based nonprofit contracted for 2 year period to facilitate CHA and CHIP

Phase I: Landscape Scan

- May through December 2023
- Process: Key informant interviews (15), document review (20), quantitative data review
- Executive summary key findings:
 - Taken as a whole, Berkeley is doing well in terms of health and wellness. Rates of chronic disease are lower compared with the county, state, and country.
 - But inequities and disparities exist and have intensified as a result of the pandemic. Living environments (such as poverty rates and housing access) are key drivers of disparities.
 - Organizations and staff that serve marginalized populations need more support.

Phase 2: Community Health Assessment (CHA)

- January through September 2024
- Steering Committee made of diverse community members meets biweekly and guides the process.
- Data collection will be done through focus groups, key informant interviews, and online surveys. In addition, JSI will work with HHCS epidemiologists to draft an online city health profile.
- A summary report will be available and published online by the end of September 2024.

Phase 3: Community Health Improvement Plan (CHIP)

- September 2024 through May 2025
- The Steering Committee will review Phase 1 and 2 results to identify the top 3-4 community health priorities.
- Health Priorities Subcommittees will identify SMART goals that can be achieved in 3-5 years.

Covello, Zoe

From: David Brandon <davidbrandon@comcast.net>
Sent: Wednesday, May 22, 2024 11:34 PM
To: Gong, Sharon; Planning Commission; Klein, Jordan
Cc: savetheuaberkeley@gmail.com
Subject: CEQA Review Needed for the UA Theater project

WARNING: This is not a City of Berkeley email. Do not click links or attachments unless you trust the sender and know the content is safe.

Dear City Planners,

I'm writing to demand that the proposal to tear down the historic United Artists theater in downtown Berkeley undergo review under the California Environmental Quality Act (CEQA). The city must NOT grant a CEQA exemption to the developer. The people of Berkeley are entitled to the protection of their environment and heritage, as embodied in CEQA.

David Brandon

Resident, District 1, Berkeley