



KENSINGTON FIRE PROTECTION DISTRICT
MEETING OF THE EMERGENCY PREPAREDNESS COMMITTEE
AGENDA
Thursday, March 17, 2022 1:00pm-3:00pm
Via Zoom Teleconference

Due to COVID-19, and in accordance with California Assembly Bill 361, this meeting will not be physically open to the public and all Members will be teleconferencing into the meeting. To maximize public safety while still maintaining transparency and public access, members of the public can observe the meeting by attending the Zoom webinar (on the day and time of the meeting) and may provide public comment by sending comments to the Board President and Board Clerk via email at public.comment@kensingtonfire.org. Comments will then be read into the record, with a maximum allowance of 5 minutes per individual comment, subject to the Chair's discretion

Instructions on how to make a public comment during the meeting: At points in the meeting when the meeting chair requests public comment, members of the public participating in the live meeting either via internet or telephone shall indicate their desire to speak. If participating via internet, please click the "raise hand" feature located within the Zoom application screen. If connected via telephone, please dial "*9" (star, nine).

Any member of the public who needs special accommodations should email public.comment@kensingtonfire.org 48 hours prior to the meeting. This will enable the Kensington Fire Protection District to make reasonable arrangements to ensure accessibility to this meeting (28 CFR 35.102-35.104 ADA Title 1).

Public comment will be taken on each agenda item. Each member of the public will be allotted the same maximum number of minutes to speak as set by the President before or during its consideration, except that public speakers using interpretation assistance will be allowed to testify for twice the amount of the public testimony time limit (California Government Code section 54954.3(a)).

Internet Address:

<https://us06web.zoom.us/j/83829549502?pwd=NTdpcTFwVk5nQWQvUkc5N3NPcEQxZz09>

Telephone Access:

(720) 707-2699 or (346) 248-7799 or (253) 215-8782

Webinar ID: 838 2954 9502

Passcode: 112233

TIMING OF AGENDA ITEMS: *Approximate times are included below but may vary to accommodate appropriate discussion time and attention to the individual items.*

1. (1:00pm) CALL TO ORDER/ROLL CALL

Directors: Larry Nagel and Kevin Padian

Public Members: Lisa Caronna, Katie Gluck, Peter Guerrero, Peter Liddell, Danielle Madugo, Paul Moss, David Spath

Staff: General Manager Bill Hansell

Consultant: Emergency Preparedness Coordinator Johnny Valenzuela

2. (1:01pm) PUBLIC COMMENT

This place on the agenda is reserved for comments and inquiries concerning matters that do not otherwise appear on the agenda.

3. (1:04pm) ADOPTION OF CONSENT ITEMS

Items listed below are consent items, which are considered routine and will be enacted by one motion. Reports and recommendations prior to assigning consent item designations to the various items have been received and considered. Copies of the reports are on file in the Fire Protection District Administrative Office at 217 Arlington Avenue and are available to the public. The disposition of the item is indicated. There will be no separate discussion of consent items. If discussion is requested for an item, that item will be removed from the list of consent items and considered separately on the agenda. (Supporting material)

a. Approval of Minutes of the regular meeting of February 24, 2022 (Approve)

4. (1:06pm) OLD BUSINESS

None

5. (1:06pm) NEW BUSINESS

a. (1:06pm) Emergency Public Address (EPA) Systems and Zonehaven

Discussion of the deployment and coordination of EPA devices with Zonehaven's Joe Grupallo, former B/C of EC-K Fire Department. See attached report from Joe, plus updated Q&A submitted by Board Members.

(Discussion)

b. (1:45pm) EPAs: Information about acquisition and deployment in Mill Valley, Laguna Beach, Berkeley, etc.

See attached information from Brendan Manning (LB), two reports from Berkeley, and refer to previous Q&As on MV

(Discussion; Potential Action)

c. (2:15pm) EPAs: Plan to educate and survey residents

Proposal to finalize and distribute an educational document and survey to residents

(Potential Action)

d. (2:30pm) Proposal to reboot and expand KFPD "replanting" grant program

Proposal to keep pace with other communities, State, and insurance companies on incentives for clearing hazardous brush and other plants. Draft proposal attached. (Action)

6. (2:35pm) EMERGENCY PREPAREDNESS COORDINATOR'S REPORT

7. (2:45pm) REPORTS FROM COMMITTEE MEMBERS

8. (2:50pm) CALL FOR FUTURE AGENDA ITEMS

9. (3:00pm) ADJOURNMENT

The next regular meeting of the Emergency Preparedness Committee of the Kensington Fire Protection District will be held on April 28, 2022 at 3:00pm via Zoom Conference.



KENSINGTON FIRE PROTECTION DISTRICT
MEETING OF THE EMERGENCY PREPAREDNESS COMMITTEE
MEETING MINUTES
Thursday, February 24, 2022 3:00pm-5:00pm
Via Zoom Teleconference

1. CALL TO ORDER/ROLL CALL

Directors: Larry Nagel and Kevin Padian

Public Members: Katie Gluck, Peter Guerrero, Peter Liddell, Danielle Madugo, David Spath

Staff: General Manager Bill Hansell

Consultant: Emergency Preparedness Coordinator Johnny Valenzuela

2. PUBLIC COMMENT

This place on the agenda is reserved for comments and inquiries concerning matters that do not otherwise appear on the agenda.

3. ADOPTION OF CONSENT ITEMS

a. **Approval of Minutes** of the regular meeting of January 27, 2022 (Approve)

MOTION: Spath/Caronna to accept the minutes as corrected.

Motion adopted by consensus.

4. REPORTS FROM COMMITTEE MEMBERS

Lisa Caronna reported that there was a kickoff meeting for the paths with John Gioia. David Spath, Danielle Madugo, and Kevin Padian also attended the meeting.

Peter Guerrero reported that he and Bill Hansell attended the JPA Formation meeting. The next meeting is on March 4, 2022.

Kevin Padian noted that it was reported in the Marin newspaper that new insurance standards have been published including 5 feet of bare ground around structures. Kevin reported that from his personal experience he had his fire insurance on his house in Glen Ellen canceled, but that his fire insurance on his house in Kensington remains intact. Because the behavior of insurance companies is uncertain, the Fire District should be raising consciousness in the community about improving fire safety and house hardening, including vegetation removal.

5. OLD BUSINESS

None

6. NEW BUSINESS

a. Initiative to organize Kensington communities

Discussion about how to raise awareness about emergency preparation, evacuation (including drills), and caring for those who will need help; details of planned neighborhood meetings to be outlined and approved for further action.

Kevin started the discussion by reporting that Brad Harms is training a new recruit and that he will then be getting back into community organization sometime in March.

Johnny Valenzuela gave a presentation on the Block Parties that he will be organizing (slides are attached).

David Spath noted that there is a lot of material to cover and suggested that the content be pared down to essentials like Red Flag days, evacuation, and parking.

This led to a discussion on how to prioritize the topics to be covered and what information to pass out at the community events. Johnny has assembled a lot of publicity materials and items that can be distributed to residents to get out the "brand" of the Fire District and raise consciousness. Having the District website address and a QR code on items will make it easier for residents to access information, so that not all of it has to be passed out in solid form or discussed in these neighborhood meetings.

Peter Liddell noted that this information gets old and having it on the website is a big advantage because it can be updated.

Danielle asked if there will be any attempt to recruit block captains for areas that do not yet have block captains.

Larry Nagel stated that the Block Party presentation needs to leave time for questions. Also, the Block Party organization should take advantage of the present CERT organization.

Peter Guerrero agreed with the idea of exploiting the CERT organization. He also agreed that Block Parties can contain many different aspects like music, pancake breakfasts, and so forth.

b. Next steps in researching Outdoor Emergency Public Address Systems

To be considered: (1) Deployment and utility of EPAs locally and regionally; (2) Questions that residents may have; (3) Technical questions for public officials; (4) Development of educational materials and a survey for residents to assess community support; (5) Potential vendors, costs, and funding subsidies (Potential Action)

Kevin noted that radios do not appear to be appropriate for emergency warning, as we discussed last time, based on advice from outside experts; so we need to pursue emergency public address (EPA) systems.

Katie noted that the systems at Laguna Beach worked very well in the most recent wildfire. Katie asked if we could have Joe Grupalo talk to us about how Zonehaven and EPA systems would be integrated. Katie noted that EPA systems can be used for

both fire and other emergencies.

Larry Nagel stated that he thought a subcommittee had been formed to study these issues. Kevin stated that the subcommittee consisted of Katie Gluck, David Spath, and himself, but that he felt it was necessary to review these issues with the entire Emergency Preparedness Committee. David and Kevin have discussed logistic questions that need to be answered, and Katie has been consulting public safety officials about their experience with EPAs.

Danielle Madugo noted that Joe Grupalo has an excellent handle on these issues since he is a former battalion chief and is now working for Zonehaven. She suggested a talk from Joe would help move this issue along.

Lisa Caronna suggested that we need to find some answers before we conduct a survey of residents.

Kevin noted that the draft survey he prepared was for discussion purposes with the committee so that it could be fine-tuned for distribution to the public. A good survey should provide background information so that residents are educated about the facts before they are simply asked to offer opinions. He distinguished between two types of questions about EPAs. One set comprises questions that members of the public are likely to have (functions, number, placement, costs, testing, etc.) and the other is more specialized, for EPC members and public safety officials (how will the devices be activated, controlled, monitored, etc.).

Paul Moss noted that no survey should go out until we have the answers to the second set of questions. Paul Moss suggested that we send these questions to Joe Grupalo and have a solid hour discussion with Joe.

Katie noted that she also thought that we should have Joe Grupalo answer our questions. Katie stressed that we need to get moving on EPA systems.

Kevin noted that the Fire Board has to approve installing EPA systems and they will not do that if the public isn't in favor of this. So it's important to inform the public about these systems and then ask for feedback before assessing whether to bring a proposal to the Board

Peter Guerrero noted that we have the obligation to get answers to the second set of questions before proceeding further.

Dave stated he has to agree with Peter Guerrero. He noted that we have to get the answers to the questions and take it to the Board and they can determine whether to have a survey. Kevin noted that the function of the EPC is to do research on public safety issues that, once gathered and digested, can be brought to the Board. The EPC is delegated to do this work, and the GM is responsible for any RFPs, contracts, and legal arrangements that may be involved.

Bill Hansell noted that we need a vendor to make a specific proposal so that we can pursue funding options before taking this to the community. We discussed the fact that Berkeley was able to "piggyback" on Laguna Beach's offer to Genasys Systems, because LB had previously circulated an RFP involving several companies and Genasys was awarded the contract for reasons similar to what we might expect would

work in Kensington (e.g., similar system to Berkeley, whose topography and problems are much like ours).

Lisa Caronna stated that we can't get moving on EPA systems without the approval and encouragement of the Board. The EPC can only make recommendations.

Bill noted that if we are to pursue a grant we need very thorough and very specific information on the system with engineering details, implementation plans, and cost estimates. We already have gathered much of this information, but estimates would have to be updated.

Paul proposed that we have someone like Joe Grupalo out to talk to us and answer our questions.

Kevin summarized that we will try to have Joe Grupalo speak at our next meeting or have a special meeting to address the questions we have been working on. Kevin will schedule a Special Meeting of the EPC for March 17, 2022 beginning at 1 PM to discuss this matter with Joe Grupalo.

c. Call for Special Meeting with the KFPD Board and the EPC

To consider a formal request to the KFPD Board of Directors to schedule a Special Meeting of the KFPD Board and the EPC to review past accomplishments and consider EPC directions going forward (Potential Action)

This item was tabled

7. EMERGENCY PREPAREDNESS COORDINATOR'S REPORT

There was no further report

8. CALL FOR FUTURE AGENDA ITEMS

None

9. ADJOURNMENT

The next regular meeting of the Emergency Preparedness Committee of the Kensington Fire Protection District will be held on April 28, 2022 at 3:00pm via Zoom Conference.

The meeting was adjourned at 5:35 PM by Chair Kevin Padian.

KFPD Emergency Preparedness Committee
Minutes of the February 24, 2022 Regular Meeting

MINUTES PREPARED BY: Larry Nagel

These minutes were approved at the Emergency Preparedness Committee Meeting of the Kensington Fire Protection District on April 28, 2022.

Attest:

Emergency Preparedness Committee Member

DRAFT

NEIGHBORHOOD EMERGENCY PREPAREDNESS

BLOCK PARTY

Safety starts at home.



KENSINGTON
FIRE PROTECTION DISTRICT

BLOCK PARTY OVERVIEW

45 MIN- 1 HOUR OF TRAINING MATERIAL

INTRODUCTION / ICE BREAKER

CWS / ALERTS & COMMUNICATION TOOLKIT

RED FLAG DAYS: GO BAGS / PARKING / EVACUATION PROTOCOL

HOME HARDENING / DEFENSIBLE SPACE - PROPERTY INSPECTIONS

TRAINING, RESOURCES & ANNOUNCEMENTS

FEEDBACK SURVEY & OPEN FORUM

BLOCK PARTY ICE BREAKER TRIVIA



PUBLIC EVENTS - SOFT OPENINGS

MARCH 19 - Colusa Circle 5K

APRIL 30 - Shred & Med Drop Off

MAY 19 - Kensington Hilltop Carnival

MAY-JUNE - BLOCK LEVEL TRAININGS



HOME HARDENING CAMPAIGN



HARDEN YOUR HOME AGAINST WILDFIRES

CLEAN DRY DEBRIS FROM RAIN GUTTERS



KENSINGTON
FIRE PROTECTION DISTRICT



HARDEN YOUR HOME AGAINST WILDFIRES

WEED ABATEMENT



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HARDEN YOUR HOME AGAINST WILDFIRES

ROOFING & SIDING



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HARDEN YOUR HOME AGAINST WILDFIRES

COVERING VENTS & OPENINGS



KENSINGTON
FIRE PROTECTION DISTRICT



Fire Hazard Reduction Checklist



Zone 1 Requirements

Definition: Zone 1 extends 30 feet from buildings, structures, decks, etc. in all portions within the community of Kensington including the designated Very High Fire Hazard Severity (VHFHS) Zones

- Remove all dead plants, grass and weeds within 30 feet of buildings, structures, decks, etc.
- Remove dead or dry leaves and pine needles from your yard, roof and rain gutters.
- Trees shall be maintained so that no portion is closer than 10 feet from any chimney opening.
- Trees, shrubs, bushes or other vegetation adjacent to or overhanging any structure shall be maintained free of dead limbs and other combustible matter such as vines and loose papery bark.
- On mature trees, limbs should be removed up to 10' above the ground. Smaller trees should be limbed to 1/3rd of their height up to 6' above the ground, but in no case less than 18" from the ground.
- Relocate wood piles to Zone 2 if applicable.
- Remove or prune flammable plants and shrubs near windows.
- Remove vegetation and items that could catch fire from around and under decks.
- Create a minimum 6-foot separation between trees, shrubs or vegetation and combustible materials.
- Vacant lots in Zone 1 shall be maintained to be 30 feet wide along the property line.

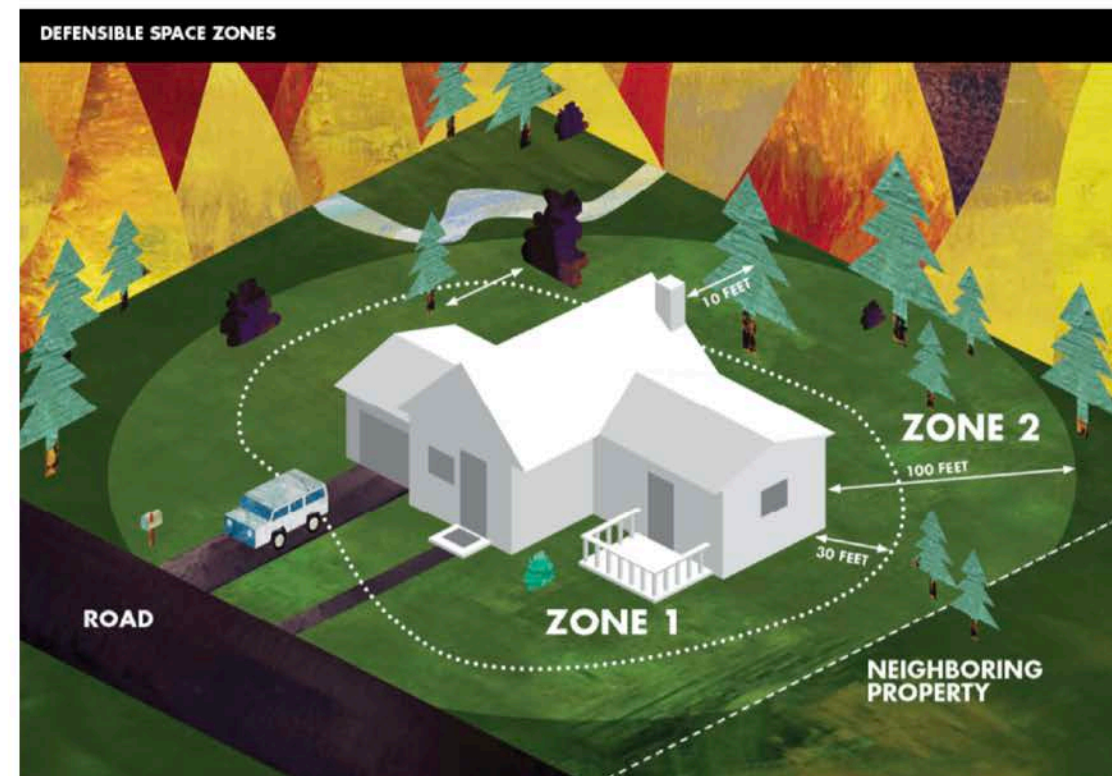
Zone 2 Requirements

Definition: Zone 2 extends from 30 feet to 100 feet out from buildings, structures, decks, etc. in only those areas within the community of Kensington designated as the Very High Fire Hazard Severity (VHFHS) Zones. **NOTE: All Zone 1 requirements shall be followed in addition to the following Zone 2 requirements:**

- Cut or mow weeds and grass shall be cleared to a maximum height of 6 inches.
- All fire hazardous vegetation except for weeds and grass shall be cleared and maintained to a height no greater than 18 inches above the ground.
- Vacant lots in Zone 2 shall be maintained to be 100 feet wide along the property line.

To find out if your property is located within the designated Very High Fire Hazard Severity (VHFHS) Zones, visit: <https://egis.fire.ca.gov/FHSZ/> On the upper right side of the page, click on the "Address Search" button.

Kensington Fire Protection District Fire Hazard Reduction Guidelines



Zone 1

Zone 1 extends 30 feet from buildings, structures, decks, etc. in all portions within the community of Kensington including the designated Very High Fire Hazard Severity (VHFHS) Zones. Vacant lots in Zone 1 shall be maintained to be 10 feet wide along the property line.

- Remove all dead plants, grass and weeds (vegetation).
- Remove dead or dry leaves and pine needles from your yard, roof and rain gutters.
- Trees shall be maintained so that no portion is closer than 10 feet from any chimney opening.
- Trees, shrubs, bushes or other vegetation adjacent to or overhanging any structure shall be maintained free of dead limbs and other combustible matter such as vines and loose papery bark.
- On mature trees, limbs should be removed up to 10' above the ground. Smaller trees should be limbed to 1/3rd of their height up to 6' above the ground, but in no case less than 18 inches from the ground.
- Relocate wood piles to Zone 2 if applicable.
- Remove or prune flammable plants and shrubs near windows.
- Remove vegetation and items that could catch fire from around and under decks.
- Create a minimum 6-foot separation between trees, shrubs or vegetation and combustible materials.

Zone 2

Zone 2 extends from 30 feet to 100 feet out from buildings, structures, decks, etc. in only those areas within the community of Kensington designated as the Very High Fire Hazard Severity (VHFHS) Zones. Vacant lots in Zone 2 shall be maintained to be 30 feet wide along the property line. **NOTES:** (1) All Zone 1 requirements shall be followed in addition to the following Zone 2 requirements: (2) The vast majority of the entire community of Kensington is in the VHFHSZ.

- Cut or mow weeds and grass shall be cleared to a maximum height of 6 inches.
- All fire hazardous vegetation except for weeds and grass shall be cleared and maintained to a height no greater than 18 inches above the ground.



Home Fire Hazard Reduction

DEFENSIBLE SPACE ZONES

Kensington Fire Protection District recommends homeowners utilize the "Home Ignition Zone" concept to make up the required 100 feet of defensible space. Many homes do not have 100' of space between structures and parcel lines. Property owners are required to maintain defensible space to their property line. Work with neighbors to help provide defensible space for their homes, and ask neighbors for help if their property threatens yours. In most cases, the most effective solution is a cooperative approach between neighbors.

The most important zone is closest to your structures from 0'-5'. If you've taken all of the steps outlined here and worked to harden your home, neighboring properties typically present only a minimal risk. Work with neighbors or land managers to reduce fuel on nearby properties or create fuel breaks to help reduce the risk to your community.



- ZONE 0** 0-5' from structures
- ZONE 1** 5' from house to 30' away
- ZONE 2** 30' -100' away from house

FIRE HAZARD REDUCTION CHECKLIST

- Remove all dead plants, grass and weeds within 30 feet of buildings, structures, decks, etc.
- Remove dead or dry leaves and pine needles from your yard, roof and rain gutters.
- Trees shall be maintained so that no portion is closer than 10 feet from any chimney opening.
- Trees, shrubs, bushes, or other vegetation adjacent to or overhanging any structure shall be maintained free of dead limbs and other combustible matter such as vines and loose papery bark.
- On mature trees, limbs should be removed up to 10' above the ground. Smaller trees should be limbed to 1/3rd of their height up to 6' above the ground, but in no case less than 18" from the ground.
- Relocate wood piles away from the home, buildings, structures, decks, etc.
- Remove or prune flammable plants and shrubs near windows.
- Remove vegetation and items that could ignite from around and under decks.
- Create a minimum 6-foot separation between trees, shrubs or vegetation and combustible materials
- Vacant lots shall have a 10 foot wide defensible space maintained along the property line.
- Cut or mow weeds and grass. Shall be cleared and maintained to a maximum height of 6 inches.
- All fire hazardous vegetation except for weeds and grass shall be cleared and maintained to a height no greater than 18 inches above the ground.
- Vacant lots shall be maintained to be 30 feet wide along the property line.



KENSINGTON

FIRE PROTECTION DISTRICT


KENSINGTON

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f @kensingtonfpd www.kensingtonfire.org

BLUCK PARTY
Safety starts at home
EPC Mtg Packet 14 of 52

PUBLICATIONS




KENSINGTON
FIRE PROTECTION DISTRICT

WILDFIRE PREPAREDNESS WORKBOOK

KEEP THIS IN A SAFE PLACE


DISASTER DIRECTORY CONTRA COSTA COUNTY



GOVERNOR'S OFFICE OF EMERGENCY SERVICES
CalOES.ca.gov

AUGUST 2021

DISASTER READY GUIDE



ENGLISH

ALSO AVAILABLE IN:
Español
中文
Filipino
Tiếng Việt
한국어
Lus Hmoob

LISTOS CALIFORNIA: ListosCalifornia.org

GOVERNOR'S OFFICE OF EMERGENCY SERVICES: CalOES.ca.gov

OFFICE OF THE GOVERNOR OF CALIFORNIA: Gov.ca.gov




OCP&R - Oakland Community Preparedness & Response Guide #11

HOME AND PROPERTY INSURANCE

Having the right amount and type of insurance and well-organized records makes a world of difference after a disaster. Make sure that all your insurance information is in-place and that your policy is up-to-date and coverage is sufficient well before it's needed.

HOME INVENTORY

DOCUMENT

First Contact Your Insurance Agent

Ask what documentation is required should you ever have to file a claim. The likely answer is a detailed inventory list with item descriptions, photos or videos, serial numbers and receipts. Any items without a specific market value, such as jewelry or art, should be appraised by an independent expert.

Then Document Everything You Own

There are a number of home inventory apps that provide an easy and fast way to document your property and securely store the records. Or you can use a spreadsheet (a free example is at: www.uphelp.org) or just write down items on paper. You do not want to rely on your memory after a disaster strikes!

Go Room-by-Room and Inventory All Contents

Note when each item was acquired and what it cost, if you can. Recording serial numbers for more expensive items can be helpful if a theft occurs. Open drawers, closets, etc., and empty containers and boxes. Remember that your attic, basement and garage are part of your property, too.

PHOTOGRAPH OR VIDEOTAPE - As you create your inventory document, take photos or videos with your phone or a digital camera of each room and all its contents. The easiest method is to make a video, narrating as you record. Photograph or film the entire space, including every wall, the ceiling and floor. Describe every item and feature, such as light fixtures and hardwood flooring, to the best of your ability. More detail is better than less.

DIGITIZE AND STORE ONLINE - The most complete home inventory is worthless if you can't access it or if it is destroyed in the disaster. Scan and digitize all paper documents such as passports, birth certificates, titles and deeds, family photos, wills, financial documents, etc. Scan all receipts you have for major purchases. And if you wrote down your inventory list on paper, scan that as well.

Store all your digitized home inventory files, photos and/or videos on-line using "cloud" storage services such as iCloud, Dropbox, Google Drive, etc. As an additional backup, copy all these files on to a USB/thumb drive and give it to a trusted out-of-state friend or relative for safe-keeping, or store it in a bank safe deposit box.

Refresh your home inventory and take new photos or videos at least every two years, or more often as property is added.

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OCP&R - Oakland Community Preparedness & Response Guide #10

HOME HARDENING FOR EARTHQUAKE

In an earthquake or other disaster, many items in and around your residence can become hazards. Take steps now to minimize the amount of damage to your family and property.

MINIMIZE HAZARDS INSIDE YOUR RESIDENCE

HOT WATER HEATER - If your water heater tips over or breaks in an earthquake it can cause injury, possible explosion, or fire if the gas line breaks. Strap your water heater securely to the wall studs in two places with a water heater strapping system. Use flexible gas and water connectors.

LARGE ELECTRICAL AND GAS APPLIANCES - Movement during an earthquake can pull on electrical cords, breaking them and creating a potential for fire. Check electrical cords to make sure that they are long enough to allow for movement of up to a few feet. Broken gas lines can cause a fire and/or an explosion. Have a qualified professional replace all short, non-flexible gas lines or connectors on gas appliances with longer, flexible connectors.

CABINETS - Be careful when opening cabinet doors after an earthquake because items may have shifted and could tumble out. Install strong latches on kitchen, laundry room and bathroom cabinets to keep the contents from flying or spilling out. Lay soft rubber shelf covering on dish and canned good shelves.


HEAVY OBJECTS - Heavy items can become flying objects during an earthquake and may cause injury. Secure computers, microwave ovens, stereos and other items with fasteners or straps such as hook-and-loop tape. Secure breakable objects with products such as quake (museum) wax or gel. Place heavy objects only on lower shelves.

PICTURES AND MIRRORS - The shaking during an earthquake can cause pictures to fall off walls and break the glass into sharp shards. Fasten large pictures and mirrors securely by hanging them with a wire on a closed or "maze" hook. Use clear acrylic plastic instead of glass to cover pictures. Avoid having glass and heavy objects around or over your bed or where you often sit.

TALL AND HEAVY FURNITURE - Top-heavy furniture such as entertainment centers, bookshelves or dressers can tip over during an earthquake, causing injury or damage. Securely fasten these to the wall studs with metal "L" brackets, cable straps or specially-designed flexible hook-and-loop straps that allow slight movement during an earthquake.

HOUSEHOLD CHEMICALS - During an earthquake, containers of household chemicals can tip over and spill, causing potentially dangerous conditions. Limit the amount of hazardous materials in storage. Store chemicals in their original containers in a shallow pan on a low shelf or inside cupboards that can be securely latched to limit possible leaking, splashing or dripping.

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Wildfire HOME ASSESSMENT & Checklist

What to know and what you can do to prepare.

UNIVERSITY OF CALIFORNIA
Agriculture and Natural Resources

UC ANR Publication 8695 | July 2021
<https://doi.org/10.3733/ucanr.8695>
<https://anrcatalog.ucanr.edu>




Reducing the Vulnerability of Buildings to Wildfire: Vegetation and Landscaping Guidance

Introduction

What can Californians do to improve the chances that their homes will survive a wildfire? The good news is that research demonstrates that a home's odds of surviving a wildfire can be substantially improved through careful attention to three principles: (1) thoughtful landscape design aimed at reducing and separating combustibles (vegetation, lawn furniture, and other landscape assets) within the defensible space on a property, (2) retrofitting homes to resist wildfire, and (3) implementing ongoing maintenance of the home and landscaping to reduce combustible materials (for example, leaves and needles) and to address the wear and tear that homes incur over time.



This publication acknowledges the importance of a coupled approach to improving the odds of home survival—an approach that encompasses the home as well as the vegetation and other combustible materials on the property. However, this publication focuses primarily on landscaping issues on a property; more detail about home hardening can be found in publications listed in the reference section (IBHS 2019; Quarles et al. 2010).

Preparing for wildfire does not have to be costly. The first step is to understand the three types of exposures that can threaten a home during a wildfire so that actions specific to the context of an individual's home and landscape can be prioritized.



FIRESCAPE

LANDSCAPING TO REDUCE FIRE HAZARD





Home Fire Hazard Reduction

DEFENSIBLE SPACE ZONES

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The most important zone is closest to your structures from 0'-5'. If you've taken all of the steps outlined here and worked to harden your home, neighboring properties typically present on a minimal risk. Work with neighbors or land managers to reduce fuel on nearby orientations or create fuel breaks to help reduce the risk to your community.




ZONE 0 0-5' from structures
ZONE 1 5' from house to 30' away
ZONE 2 30'-100' away from house

FIRE HAZARD REDUCTION CHECKLIST


- Remove all dead plants, grasses and weeds within 30 feet of buildings, structures, decks, etc.
- Remove dead or dry leaves and pine needles from your yard, roof and rain gutters.
- Trees shall be maintained so that no portion is closer than 10 feet from any chimney opening.
- Trees, shrubs bushes, or other vegetation adjacent to or overhanging any structure shall be maintained free of dead limbs and other combustible matter such as vines and loose papery bark.
- On mature trees, limbs should be removed up to 10' above the ground. Smaller trees should be limber to 1/3rd of their height up to 6' above the ground, but in no case less than 18" from the ground.
- Relocate wood piles away from the home, buildings, structures, decks, etc.
- Remove or prune flammable plants and shrubs near windows.
- Remove vegetation and items that could ignite from around and under decks.
- Create a minimum 6-foot separation between trees, shrubs or vegetation and combustible materials.
- Vacant lots shall have a 10-foot wide defensible space maintained along the property line.
- Cut or mow weeds and grass. Shall be cleared and maintained to a maximum height of 6 inches.
- All fire hazardous vegetation except for weeds and grass shall be cleared and maintained to a height no greater than 18 inches above the ground.
- Vacant lots shall be maintained to be 30 feet

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SESAME STREET FIRE SAFETY PROGRAM

Color and Learn



U.S. Fire Administration FEMA

BLOCK PARTY

Safety starts at home.

BOOTH DISPLAYS



KENSINGTON
FIRE PROTECTION DISTRICT


**RED FLAG DAYS
ARE COMING.**

ARE YOU READY?

PREPARE NOW!


- REGISTER FOR ALERTS
- PACK A GO BAG
- BE READY TO EVACUATE

f @kensingtonfpd



KENSINGTON
FIRE PROTECTION DISTRICT

f @kensingtonfpd



KENSINGTON
FIRE PROTECTION DISTRICT

**HOW WILL YOU KNOW AN
EMERGENCY
IS HAPPENING?**

**DON'T MISS
CRITICAL INFO.
SUBSCRIBE!**

- CWS ALERTS
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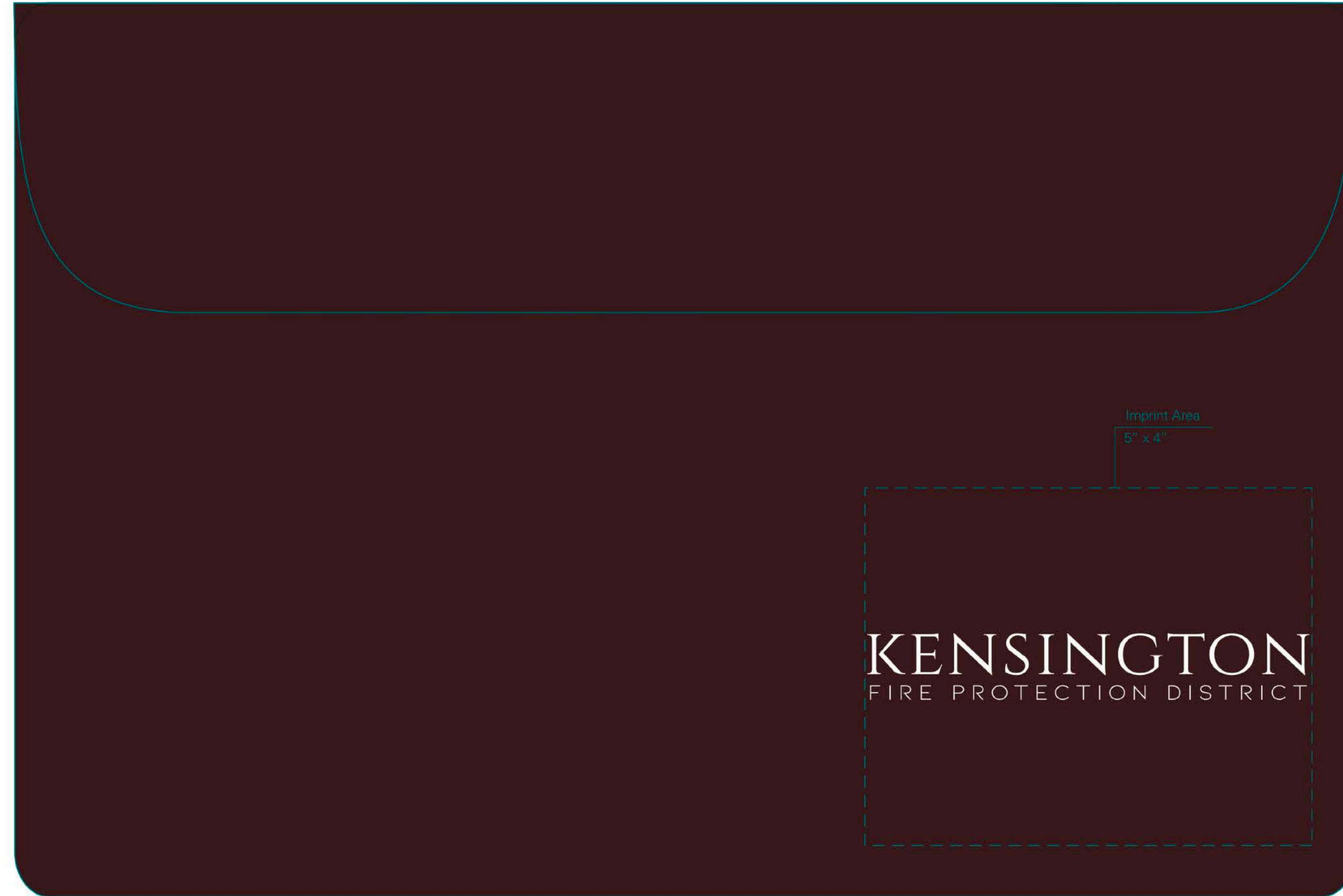
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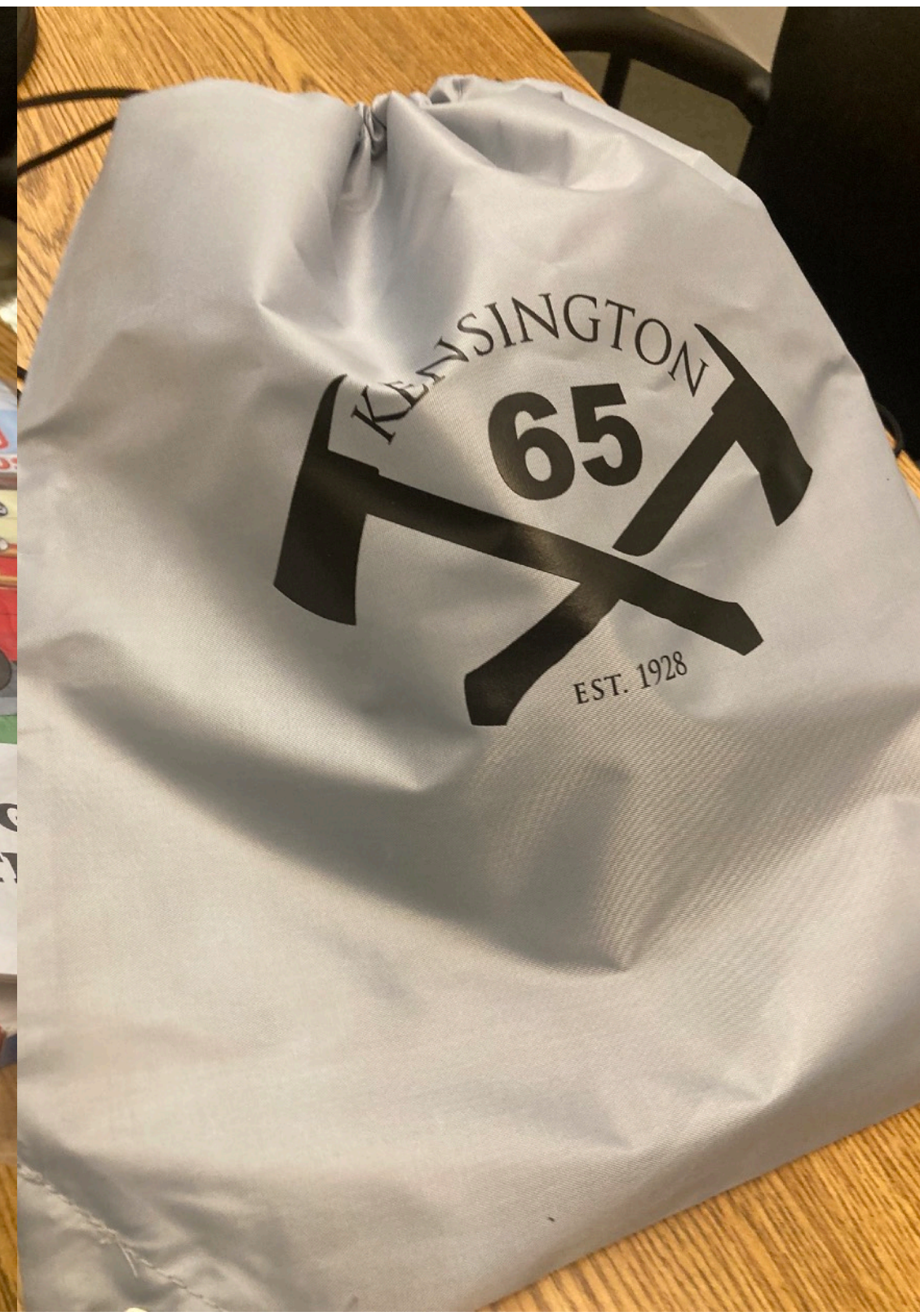
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BRANDED SAFETY PROMOTIONAL ITEMS



MISC. ITEMS



Responses to EPC questions on EWS (EPAs) by Joe Grupalo, March 2022

[C] Exactly what can we expect an appropriately selected EWS to do for Kensington in an imminent emergency? **Best feature: The speakers work without power or cell tower. (Hayward Fault). The system will work off solar for approximately 3 days. The system can be activated via satellite. No electricity is needed to activate an alert.**

[P] Given all the emergency possibilities, how and when will it be used (Voice? Coded tones? Both?) **Berkeley is doing both. The idea behind that is the loud siren grabs people's attention. The voice messaging will follow with specific instruction as needed.**

[P] What is the best power source to use for this?
Electricity is the best power source. It is recommended to order w/ the battery backup feature.

[P] How can the system be best protected from adverse weather and wildfires?
The speakers can withstand adverse weather. Protection from wildfire should follow the Cal Fire 0-5' zone of gravel/rock surrounding the pole. Keeping vegetation free and clear is the best practice for wildfire prevention.

[P, C] Once the best system and equipment required for Kensington has been determined, what is the estimated final cost? **It all ranges based on the features ordered. Berkeley ordered 15 speakers and will land just under 2 million. (Approximately \$130k/each). That includes 3 yr maintenance, battery backup, satellite activation, etc**

[P] What is the recommended routine maintenance protocol and what will it cost?
Visual inspections. Routine pings sent out to test system. Automated monthly tests programmed in on date and time as needed.

[P, C] What is the likelihood that people indoors will be alerted when the recommended system is in place? **The closer the speaker, the more you'll hear it. They are not rated for an indoor warning system – but you will hear it. Factors on clarity depend on home construction. (Thick insulation/dual-paned windows) among other things that could reduce sound travel.**

[P] Will or can our system somehow be integrated with other nearby EWSs (e.g. Berkeley)? How to avoid confusion internally and externally with different jurisdictions? JPA-like agreements? **Like and kind vendors will be compatible with each other. UC Berkeley is bringing in 3 speakers that will be compatible with City of Berkeley speakers. Same vendor. Same make and model. However, the issue here is the jurisdiction policies. There may be discrepancies between counties, cities which could cause delay and/or no JPA-like agreements.**

[P] Who typically has EWS activation authority and access? What is the typical protocol for activation? **Typically it's all command staff level positions within a Unified Command structure. Battalion Chief and up on fire side. And Sergeant and up on law side. Each agency will differ depending on their specific agency protocols and organizational chart.**

[P] How does it integrate with ZoneHaven, the County and our Police and Fire depts.
Integrations are through ipad, iphone, tablet command, computers etc. Speakers are linked to specific zones. This is how the speakers would incorporate Zonehaven.

[P] History of recent EWS activations (e.g. for wildfire) and how well it did it work in these other areas (preferably with a similar geography)?
The only history I know of is the Emerald Fire in Laguna Beach a month or so ago. We have reached out to the LA County representative and asked for any After Action Reports. None given as of today. Berkeley and Mill Valley I do not believe have ever needed to activate the speaker system.

[P, C] If approved, how long would it take to build and implement a ready-to-use system?
This is mostly based on what will be required during the permitting process through Contra Costa County.

[P] What are the minimum number of devices needed to cover Kensington?
The speakers are generally spaced at about ½ mile apart. Each spot is a little different depending on sound blockers and such. Kensington is probably in the 4-5 speakers range.

[P] Where would they be placed? Assume that they would be on public property
The best locations are Kensington owned properties. City buildings and After that, it can become problematic and very difficult.

[P, C] What is the experience of other jurisdictions who use similar devices or who plan to use them. City of Mill Valley/Southern Marin Fire District; City of Laguna Beach; Berkeley
The only agency I know of that possibly used them on a live event is Laguna Beach a few weeks ago. There has been no activations in Berkeley, Southern Marin or Mill Valley.

[P] How would coordination with Berkeley work as Berkeley's proposed system will probably result in coverage of a portion of Kensington.
If you hear a speaker and/or siren – these are clues to seek out additional information immediately via radio, TV, etc.

Questions and thoughts about Emergency Warning Systems

[These questions came from Larry's draft minutes of our June 2021 meeting, as well as from EPC members. *Updates as of February 2022 are in bold italics.*]

-Kevin noted that we have had one presentation from Mill Valley, and their only regret was that they did not opt for the solar powered backup. Kevin noted that if we lose power for several days, many of our systems (cellphones, laptops, cordless land lines) will not work. The present systems can put out voice announcements as well as audible alarms over 72 hours of active service (and can be replenished by solar in between uses). -- **This is all true, as far as I know. MV is very happy with their system.**

-Danielle noted that one of the presentations noted that the systems can be integrated with the earthquake early warning systems. – **Yes, as far as I understand it, but need to check each one.**

-Katie noted that with an earthquake the power will be out. – **And by this she meant that our home electronic devices (cellphones, laptops, internet) will stop working after a few days. That means people won't receive CWS and other alerts. This is why an independent external system provides an important backup.**

-Peter noted that he attended the Berkeley Wildfire Program and noted that with Zonehaven every jurisdiction is using the same vendor. His thought is that the same thing should be true of sirens. Peter suggested that we should talk to Berkeley on how they chose a siren system.

-Katie has been in touch with Berkeley, and they chose Genasys because another southern California town chose Genasys. The final location and number of sirens has not been finalized.

-- **Whereas it looks like Oakland and Berkeley are going with Genasys, which now owns Zonehaven, there is still some question how effective the Zonehaven system will be for Kensington, because we are small and tightly packed, and in many situations we may have to evacuate en masse because fire is advancing too quickly. Hopefully Zonehaven is nimble enough to recognize this, but the evacuation orders will be delivered by our Police and Fire Chiefs, so this may be a local discussion. [Berkeley and Oakland are going with Genasys.]**

There are of course regulations about public agencies and major purchases. We have been in touch with three vendors (and a fourth contacted us) who appear to produce suitable devices, and looked at others that don't have what we want. Ordinarily Bill would circulate an RFP including the promising vendors. However Berkeley may have been able to short-cut this by getting access to the RFP of Laguna Beach, who went through the same process. **This needs more discussion. [I have contacted Laguna Beach to see if we can get their RFP waiver.]**

-Dave Spath noted that it is not clear how the devices will be used in concert with evacuation warning systems. Also, this system would not be terribly useful in an earthquake.

To the first question, the Chiefs would handle both local evacuation orders and the implementation of the EWS. To the second, the EWS can emit a great many pieces of information after an earthquake happens and the electricity goes out (as Katie said above). It can inform people about emergency supplies, blocked roads, downed power lines, and much more. When electricity is out and homes are damaged, this is a lifeline.

-Peter Guerrero stated that when we started this discussion, he was in favor of an EWS in Kensington. However, he has become concerned with an EWS that may or may not be issuing information that contradicts the Zonehaven alerts. Peter noted that an EWS makes more sense in Berkeley than it does in Kensington, where we are concerned only with wildfires and earthquakes.

-- Two different thoughts here. First, the EWS would not contradict the Zonehaven alerts because they would be controlled by the same people. Second, Berkeley, as usual, is a different world. They will be debating how many languages to broadcast in, for example. And they may well have civil emergencies that we won't. But that doesn't seem to be a reason for Kensington not to employ an EWS; it's another reason why it could be even more useful to Berkeley. *[In our next meeting with the Chiefs they confirmed their willingness to implement the system, as did the OES people.]*

-Danielle noted that an EWS would be useful in an earthquake because there could be fires and landslides. Also, evacuation may be necessary for an earthquake. – **Yes.**

-Paul Moss noted that we need to check with neighboring communities about their plans and that we need to plan a public education program. – **Yes, although these are two different (and important) things. We can't control the first, and what others do may not be best for us. And second, a public education program is critical, but first we have to know if a system is right for Kensington. If so, then our EPC Coordinator is on the job. *[A public survey is part of the education program.]***

-Chris Hilliard noted that we were in communication with Zonehaven about evacuation. We need to be educating people to know several routes out of town and to plan for an evacuation. Chris noted that Zonehaven has fire modeling in place and the fire model would affect the evacuation routes. Chris also noticed that for high-risk people, an evacuation warning should be considered an evacuation order. – **All good points. Subsequent discussion suggested that the public doesn't need to know anything about the particulars of Zonehaven, or even what zone they're in. They just have to evacuate when they're told to. This is important but different than the question of whether we should recommend the procurement of an EWS.**

-Dave Spath stated that he thinks we need to educate the public on what it means to evacuate. – **Absolutely; see above. This is why we hired an EP Coordinator.**

-Paul Moss noted that in the Lafayette evacuation plan that each resident is responsible for knowing a way out of town for their zone. – **This is what the Chiefs say, and we agree. Our job (it could be argued) is to get people aware that they have to do this, and about what else they have to do to prepare. This is why we hired an EP Coordinator.**

- Peter Guerrero said: My primary concern is coordinating any EWS zone information with the Zonehaven polygons. It's important that they be in sync, particularly with regard to evacuation. My initial overall feeling that redundancy is a good thing, that you can't have enough early warning systems, can be counterproductive if these systems provide information that confuses the public and doesn't provide clarity and uniformity. If we go the EWS route any contract must include the requirement that their system is coordinated or linked with Zonehaven's. – **This was addressed above: the same people (Chiefs) would be in charge of both systems, so automatically coordinated.**

- Four concerns from Dave Spath:

1. What is the purpose of the EWS as it relates to the CWS for evacuation communication with residents? During a wildfire threatening Kensington residents, the CWS is intended as the primary form of communication advising residents in specific zones to evacuate. The sirens are not zone specific, so will they be used as a supplement to the CWS and used as a signal to advise **all** Kensington residents to evacuate. If we choose an EWS with voice recordings, using that aspect of the system for zone evacuation seems impractical.

-- **Again, the Chiefs would handle both systems. Based on the studies of traffic load on our streets, it is difficult to see how an evacuation could be phased, or that people would not simply ignore plans and rush out whenever they could (these views have been voiced in our meetings). It's not only voice recordings, it's vocal announcements in real time, which you can't get through any other medium. Especially if the power has been out for some days.**

2. If we decide to implement an EWS, what type of system would best serve Kensington. If the intent of the EWS is to solely advise residents to evacuate, then a simple siren system would appear appropriate. All residents could be advised to evacuate when they hear the sirens. However, if the intent is to use the EWS for communicating non-evacuation information and instructions such as after an earthquake, then a voice recording acoustical system may be appropriate. – **The latter seems more useful but both could work if needed. Without power there are no verbal instructions or items of information, unless you have a battery-powered radio tuned to KCSB, KSFO, or KQED.**

In researching the Mill Valley system, it appears that the city does not use their new LRAD (Long Range Acoustic Devices) system for evacuation alerts. The city indicates on their Warning and Alerts webpage that "in the event of a disaster or large-scale emergency, one or all of the sirens may be activated to alert residents to tune into local media (City website, social media, radio and television stations) for further information and instructions." Evacuation

orders will come from the "Alert Marin" county system, which is analogous to the Contra Costa County CWS. <https://www.cityofmillvalley.org/fire/emergency/warnings.htm>

-- They seem to have the ability and flexibility to do both. It is difficult to expect that most Kensington residents would tune into "local" media, whatever they are (e.g., Berkeley emergency radio), even assuming that people have self-powered radios; and radio and TV stations won't provide much precise information about Kensington. The EWS system could. The CWS system might, if people's devices were still working, and if someone decided to offer granular information through CWS, which has never been done so far. But the EWS could essentially be a local radio station. It would be up to the Chiefs how to use the system. [I spoke to the Mill Valley (now Southern Marin Fire District) folks about this and they clarified that in a fire evacuation they would likely not use the verbal part of the system, just the non-verbal sounds, at least initially.]

3. Regarding the placement of the EWS, in addition to being able to hear them, they need to be located near a power source and, if battery backup is desired, what type of space considerations come into play for the placement of solar panels. – **Most models that we would consider have their own battery supply, which can be periodically replaced, and also a solar panel; these are capable of storing up to 72 hrs of communication (used as needed), and can be replenished continually. Space for the panels is provided on the supporting poles.**

4. If Berkeley plans to implement an EWS system, then we need to understand what they plan to use (LRAD or just sirens) and how they will use them. A fair portion of Kensington will certainly hear the Berkeley system, which has the potential for confusion and misinformation for Kensington residents. – **Yes, just as the Richmond refinery sirens confuse people; but this doesn't seem a reason not to proceed. It could be assumed that Kensington sirens would be heard better than those from Berkeley in nearly all houses; but why would one assume that the information from both sources would be substantially different? Could be mutually supportive. [Especially if they're all from the same vendor. But still two different counties.]**

Lisa contributed these thoughts and questions:

I watched the EPC meeting recording. The only question I had was the effectiveness and longevity of a solar powered system and the space requirement for any panels. – **see above.**

The discussion that you all had at that meeting brought up many good points including how the sirens fit into the comprehensive warning systems that already exist with Zone Haven, CWS, Nixle, etc. – **see above**

I also appreciated your point to find out the reasoning behind Berkeley's decision to move forward with their implementation. Have they prepared a council report on this yet? I couldn't find one with a quick check of records on-line. That report should lay out the rationale, costs, implementation, etc. Perhaps Susan W knows. – **we can check with her [I think you have it now?]**

Having a clear idea of why and when they would be used seems like a good basis for moving forward. – **Although we have our ideas, the implementation would be up to the Chiefs, so knowing what they would do is critical to knowing if it's worth investing.** *[We got some insight from this from the meeting with the Chiefs and the OES folks.]*

Another concern voiced was that the devices (sirens, voices) could not be heard indoors. – **Yes, we're looking more into this. If so then they would only be useful from about 8 am to 6 pm, because everyone is in their houses after that. Very few people in Kensington venture out in the middle of the night, when fires are likely to start during DWEs. We need to get specifics. Obviously the strength of sound emissions decreases with distance, but also people have great individual differences in their awareness of their environments. It is assumed that we would have enough devices in place to get a substantial part of town awakened. And remember, we don't have to wake up everyone: we have to wake people who will wake other people. This is why we need neighborhood organization!** *[The acquisition of these systems by Mill Valley, Berkeley, and Oakland, all of which have very similar topographies to ours, suggests that this problem has been addressed.]*

[Cost of these devices: if it's \$500K and we amortize for 30 years at 4%, the yearly cost is \$28,800 plus a few thousand in maintenance. At 3% it's under \$16,800 a year. And a dollar in 2051 is likely to be worth about 45 cents in today's money.]

Correspondence with Brendan Manning, Emergency Operations Coordinator, Laguna Beach FD, 3 March 2022, regarding the operations of their Genasys devices during the recent fire (with Dave Spath and Kevin Padian)

I do not have a comprehensive summary of the use of Genasys completed yet. As you're aware, we used the applicable speaker sites to notify the community of evacuation orders during our recent wildfire. There was some feedback from a few residents (emphasis on a few) that at times it was difficult to understand the message. I will add that most of the feedback has been nothing but positive in terms of hearing the alerts and understanding the message. A few notes/comments which you may find helpful.

- We did not have a speaker in the immediate affected area. This was primarily due to the area most closely impacted and evacuated was unincorporated county land (not city) and they elected to not get a speaker when we offered one. Therefore we chose the 3 speakers that surrounded the communities to triangulate the alerting.
- While some people reported the message was confusing, my take away is that they heard the tone, knew there was an emergency and to find out more information. The Outdoor Warning System is only 1 piece of our notification toolbox, and we continue to urge people to ensure they're signed up for AlertOC and Nixle to augment the outdoor warning system.
- We are working with Genasys to add a sequential alerting feature, which would send the alert tone and message one-after-another rather than simultaneously. This would help when we are sending alerts to geographically close locations.
- We are currently only using the Genasys alert & warning and not Zonehaven. Our evacuation zones and website are managed in-house with our GIS team. We are looking to see if and how we can incorporate the Zonehaven components.
- We've been given direction from City Manager to explore opportunities for expanding our array to reach even more vulnerable communities.

Overall the feedback on the use and deployment of our Outdoor Warning System has been positive.

CONSENT CALENDAR

May 14, 2019

To: Honorable Mayor and Members of the City Council

From: Disaster and Fire Safety Commission

Submitted by: Gradiva Couzin, Chair, Disaster and Fire Safety Commission

Subject: Recommendation to Install an Outdoor Public Warning System (Sirens) and Incorporate It Into a Holistic Emergency Alerting Plan

RECOMMENDATION

We recommend that City of Berkeley immediately begin the process to purchase, install, and maintain an outdoor public warning system (sirens) as a supplement to other alert and warning technologies within our boundaries and coordinated with abutting jurisdictions and Alameda County.

This installation should be accompanied by the following:

- ongoing outreach and education so that the public will understand the meaning of the sirens and what to do when they hear a siren
- development of a holistic alert protocol, incorporating sirens as an additional option among the available suite of alerting methods
- staff training and drills on alerting procedures
- development of a testing and maintenance plan that will ensure the system is fully operational while avoiding unnecessary or excessive noise pollution in the City
- outreach to deaf and hard of hearing residents to encourage them to opt-in for alerting that meets their communication needs. This may include distributing weather radios or other in-home devices with accessibility options for people with disabilities.

This recommendation does not specify the number, type, or location of sirens; City staff should determine the most cost-effective system that achieves the goals described in this recommendation. This may include either mobile or fixed-location sirens.

FISCAL IMPACTS OF RECOMMENDATION

Exact costs and staff time are to be determined. However, the two estimates below give a ballpark sense of the possible cost of this installation:

- Example 1: The cost of a 23-siren system in Berkeley was estimated at \$801,000 in 2004 (\$1.1 million in 2018 dollars), with an additional \$100,000 (\$132k in 2018 dollars) for public outreach and 0.5 FTE staff member time for 6 months to support the installation process.
- Example 2: A siren proposal in Sonoma County was recently estimated at \$850,000 for design and installation of 20 sirens.

CURRENT SITUATION AND ITS EFFECTS

On March 27, 2019, at the Regular meeting of the Disaster and Fire Safety Commission, the commission passed a motion to recommend that the City immediately begin the process to purchase, install, and maintain an outdoor public warning system (sirens) as a supplement to other alert and warning technologies within our boundaries and coordinated with abutting jurisdictions and Alameda County. M/S: Flasher, Degenkolb; Vote: 8 Ayes: Degenkolb, Flasher, Simmons, Stein, Bailey, Couzin, Grimes, Dean; 0 Noes; 0 Absent; 0 Abstain.

Berkeley faces a serious threat from a wildland-urban interface (WUI) fire that has increased for many reasons, including the growth of fuel that is happening as a result of recent rains. Based on recent experiences in the 2017 North Bay fires and the 2018 Camp Fire, it is clear that a wildfire in Berkeley would spread very quickly, expanding at many miles per hour and requiring a rapid evacuation of a large number of residents. This is especially likely in the designated Hazardous Fire Zones in the hills, but an intense and fast-moving fire threatens the entire City of Berkeley, including the flats.

Significant efforts are underway to address this increasing threat, including City staff's creation of a draft Wildfire Evacuation Plan and other wildfire safety efforts.

The City of Berkeley currently has several available alerting options that it can use in a wildfire emergency (see Attachment A) but does not have a citywide system of emergency sirens.

Recent wildfires in Northern and Southern California have shown that existing alerting systems and processes have not been sufficient. These wildfires have had tragic outcomes, with a disproportionate number of deaths of seniors and people with disabilities. Some of these locations have since initiated plans to install outdoor public warning systems (sirens).

BACKGROUND

Berkeley has considered using sirens for many years. In 2004, the City commissioned a study exploring installing emergency sirens, which included testing sirens and designing a possible layout of sirens.

In November, 2004, Bill Greulich, Emergency Services Manager at the time, recommended against installation of fixed sirens. He instead recommended exploring mobile sirens or weather radios. See Attachment B, "Alerting and warning system project update and recommendations for further action." However, in the 15 years since that discussion, neither of the suggested alternatives (mobile sirens and mass distribution of weather radios) has materialized.

Since that time, wildfires have become an increasing hazard in California due to the effects of climate change, including: increased frequency and severity of drought, tree mortality, bark beetle infestation, warmer spring and summer temperatures, and longer and more intense dry seasons. California experienced the deadliest and most destructive wildfires in its history in 2017

and 2018.¹ Fires are bigger, faster, and more intense; firefighters in the 2018 Camp Fire reported that they had never seen a fire move so quickly.² The length of wildfire season has expanded to be nearly year-round.³ With the continuing effects of climate change, scientists suggest that fires will continue to be a worsening threat.⁴

Also, in the years since the 2004 decision, smartphone technology has emerged, and while this has been an important addition to alerting options, it has not fully met the alerting needs or expectations of the public. A California Office of Emergency Services (Cal OES) Assessment Report on the Sonoma County wildfires of October 2017⁵ concluded that public expectations for local government alert and warning services are higher than what is currently being offered. People expect to be adequately alerted, even if they have never taken any action to “opt-in” for warnings.

At this time, the City is reviewing and re-evaluating all of its emergency notification options following the 2017 and 2018 wildfires. Berkeley Fire Department has been considering the idea of installing sirens for at least a year, since January 2018.

ENVIRONMENTAL SUSTAINABILITY

Installing sirens will have an environmental impact due to the construction and maintenance required. They also create noise pollution that can be highly annoying for residents. Poles can be wood, concrete or steel. Sirens can be AC or battery-powered with solar-powered battery back-up as an option.

RATIONALE FOR RECOMMENDATION

The tragedies of the 2018 Camp Fire and the 2017 North Bay fires show the extreme danger that fast-moving wildfire events pose for both residents and responders. The objective of this Commission is to assist policy makers, responders, and residents in achieving the ultimate goal of a smooth-running, extremely fast, safe and effective evacuation with no loss of life.

Currently, Berkeley has several systems available to alert residents of an emergency. See Attachment A, “Alerting Systems Available for Berkeley Emergencies (February 2019)”.

Each of Berkeley’s currently-available alert systems will reach some but not all residents, and most of these systems are only available to people who have opted-in before an emergency, or who are actively seeking information about an emergency – not people who are simply going about their lives.

¹ <http://www.fire.ca.gov/downloads/45-Day%20Report-FINAL.pdf>

² <https://www.nationalgeographic.com/environment/2018/11/how-california-fire-catastrophe-unfolded/>

³ <https://www.nature.com/articles/ncomms8537>

⁴ <https://www.theguardian.com/environment/2018/aug/07/california-wildfires-megafires-future-climate-change>

⁵ <https://sonomacounty.ca.gov/Public-Safety/Emergency-Notification-for-Sonoma-Complex-Fires-2017/>

As an additional concern, failure rates can be high with any one system. In Sonoma County in the 2017 North Bay fires, only 51% of the 290,000 emergency alert calls reached a human or answering machine⁶. Camp Fire failure rates for alerts reportedly ranged from 25% to 94%.⁷

Due to various failures and limitations of emergency alerting, many survivors after the 2017 North Bay fires and the 2018 Camp Fire were left wondering why they did not receive any alert at all. These experiences and tragic outcomes strengthen the importance of redundancy through multiple alert methods.

A modern outdoor siren system, designed to blanket all of Berkeley in sound, would provide an additional layer of coverage where other systems may fail. Sirens can also provide redundancy if other communication channels are disabled due to power outage or cell tower disruption.

Here are several questions and answers about this siren recommendation:

When will sirens be activated? Currently, City staff determine what type of alerts to send out based on the level of danger, how localized the danger is, and how imminent the danger is. Sirens should be incorporated into a holistic plan for warnings and alerts so that they have the best chance of filling any gaps to alert people when there is a serious or life-threatening hazard, including wildfires, chemical spills, or other hazards.

Modern sirens allow for multiple tones, so they can be used for more than one message. In addition to wildfire and other hazard alerting, sirens could potentially be integrated with future earthquake early warning systems, which is already done in Mexico City, to provide a warning before earthquake shaking hits.⁸

This recommendation does not specify the exact criteria for determining when to activate a siren alert; the option of activating sirens should be incorporated into the City's alerting protocol based on the best professional judgement of City staff, and in accordance with appropriate state or federal guidelines.

Any alert or warning technology is only as good as the planning, training, and situational awareness that allows responders to use it well. We recommend that activation criteria and procedures be fully and clearly documented in writing, trained, and tested by City staff on a regular basis:

- Criteria for activating alerts
- Who is authorized to decide to activate an alert
- Content of alerts (message template), as applicable
- Technical operation of the alerting system

⁶ <https://abc7news.com/sonoma-county-tests-emergency-phone-calls-in-wake-of-north-bay-fires/4208459/>

⁷ <https://www.mercurynews.com/2018/12/16/camp-fire-created-a-black-hole-of-communication/>

⁸ <https://eos.org/features/lessons-from-mexicos-earthquake-early-warning-system>

Will people hear them indoors? Outdoor public warning systems are generally considered to be for alerting people who are outdoors, not indoors. However, “practical experience and the results of tests by the Federal Emergency Management Agency (FEMA) and others have shown that siren sounds are quite effective for alerting large populations—including those indoors”⁹

According to a 2006 FEMA technical bulletin, despite the limitations in sound getting inside buildings, “an outdoor [public alert system] can reasonably be expected to alert *some* people inside buildings” and “a properly designed outdoor [public alert system] may also awaken sleeping members of the public in residential areas.”¹⁰ This bulletin reports that the likelihood of a person being awakened from sleep by an outdoor siren ranges from 17% - 52%, depending on the person’s age and the loudness of the sirens.

Consistent with this research, past events also show that sirens are often heard indoors. For example, in the deadly 2011 Joplin, MO tornado, sirens “could generally be heard indoors” although unfortunately many residents did not take action based on the sirens¹¹. Recent siren malfunctions in 2017 and 2018 (in Dallas and Memphis) resulted in a large number of complaints about people being awakened or kept awake by the sirens.¹² And many West Berkeley residents can attest to being awakened from sleep by Bayer plant sirens.

Clearly, the City can’t rely on sirens to alert everyone who is indoors, especially if people are asleep. Sirens may only reach half or a quarter of this population; because of this, sirens should be just one layer in multiple alerting methods that are used. The most effective emergency alerting combines multiple methods, both outdoor and indoor.¹³

We recommend that the selection of tones and frequencies be made to maximize the chance of the siren being audible indoors, as described here: “lower frequency components should be included for better coverage, including components between 225 Hz and 355 Hz for transmission through windows (Mahn 2013).”¹⁴

Will they be confusing? An ongoing public information campaign is an important part of any outdoor public warning system, so that people know what action to take when they hear a siren. Additionally, siren testing should be designed to help the public be aware of sirens and their meaning. Testing should take place at the same time of day and week (e.g. at noon on Tuesdays) to avoid any confusion, and silent testing should be used when possible.

⁹ <https://asa.scitation.org/doi/10.1121/1.2024832>

¹⁰ https://www.midstatecomm.com/PDF/FEMA_guide.pdf

¹¹ <https://www.nist.gov/sites/default/files/documents/2017/05/09/NCSTACmtgDec2013KuligowskiJoplin.pdf>

¹² <http://www.wmcactionnews5.com/2018/11/01/tornado-sirens-falsely-sound-nd-straight-morning/>,

<https://www.nytimes.com/2017/04/08/us/dallas-emergency-sirens-hacking.html>

¹³ https://www.researchgate.net/profile/John_Sorensen7/publication/327226171_Rogers_and_Sorensen_1988_Diffusion_of_Emerg_Warn/links/5b816d40299bf1d5a7270825/Rogers-and-Sorensen-1988-Diffusion-of-Emerg-Warn.pdf

¹⁴ <https://nvlpubs.nist.gov/nistpubs/TechnicalNotes/NIST.TN.1950.pdf>

Here are examples of siren testing programs in locations near Berkeley:

- San Francisco, which has had a siren system in place for many years, tests their system every Tuesday at noon using a single tone for 15 seconds. In an actual emergency, the sound will cycle repeatedly for 5 minutes.¹⁵
- Oakland and UC Berkeley test on the first Wednesday of every month at the same time, using a slow wail for 90 seconds. This is explained to the public as not only testing the system, but “enhancing public awareness” so that if something different from the usual day, time, or tone is heard, the public should turn on radios, computers, phones or TV for more information. Three different tones are used in case of an actual emergency: A 3-minute slight wail means shelter in place, a slow wail means a tsunami, and a fast wail means a fire.¹⁶
- Richmond, which is on the Contra Costa County system, tests on the first Wednesday of every month at 11:00 am for less than 3 minutes, and every Wednesday at 11:00 am using a barely audible sound (known as a “growl test”)¹⁷. There are also two systems in place controlled by the Chevron Refinery.

The typical action that people should take when they hear an emergency siren is to seek more information through other channels, which may include the radio or internet, in order to learn what they need to do next. It’s very important that people get a consistent message from all of these channels, so planning for that output should be included in the holistic alerting plan.

Here are two examples of this process not working well:

- In the 2011 Joplin, MO tornado, sirens prompted people to look for more information, but they got conflicting information from different sources, which led to public confusion and is considered a major contributor to why people didn’t take action and get to safety.¹⁸
- Another example of poorly-managed public information for outdoor public warnings is the Bayer plant in West Berkeley. Bayer alarms occasionally go off and are concerning to neighbors, but there is minimal information available online, and Bayer doesn’t answer a support line after hours.

City of Berkeley would need to do a better job and provide extensive support and education, not only when the system is installed but also on an ongoing basis afterwards, and every time the sirens are activated.

Are they accessible and ADA compliant? A negative feature of sirens is that, like other audible alerts, they are not accessible to people who are deaf or hard of hearing.

Berkeley’s emergency alerting must use a combination of notification methods that can reach all residents. The public outreach campaign should include a very extensive program to reach all

¹⁵ <https://sfdem.org/tuesday-noon-siren>

¹⁶ <http://www2.oaklandnet.com/oakca1/groups/fire/documents/webcontent/oak063278.pdf>

¹⁷ <https://www.ci.richmond.ca.us/331/Community-Warning-System>

¹⁸ <https://www.nist.gov/sites/default/files/documents/2017/05/09/NCSTACmtgDec2013KuligowskiJoplin.pdf>

disabled residents and encourage them to opt-in for alerting that meets their communication needs. This may include distributing weather radios or other in-home devices with strobe light or vibration options as an alternative to siren alerting for people who are deaf or hard of hearing.

We believe that despite this limitation, sirens could help deaf and hard of hearing residents. In emergencies, many people learn about the danger from a neighbor, not directly from official alerts. This is described in the 2018 Camp Fire:

“Some learned about the looming wildfire from neighbors knocking on their doors. Or frantic cellphone calls from friends. Others just looked out their windows and saw the smoke and flames, or heard the chaos of neighbors hustling up children and pets and scrambling to get out.

Matthew White was sound asleep when the fire began raging around his home in Paradise, Calif., the morning of Nov. 8. But somehow he heard his cellphone ring.

It was a friend of his shouting on the other end of the line: “Get the hell up and get the hell out! Paradise is on fire!” “¹⁹

The way this helps is analogous to the concept of “herd immunity” or “community immunity” that helps explain how vaccines make communities safer: blanketing the area with a siren will allow a larger percentage of people to get informed and to inform neighbors, and this will improve the level of protection for all, including vulnerable neighbors who may not hear the sirens.

Will they work in a power outage? Outdoor warning sirens can have backup batteries, which can be recharged using solar panels to ensure that they will work during a power outage. They can be controlled by a radio signal from a safe location.²⁰ Sirens may burn down in a fire, but they will at least be able to provide warning until the fire reaches their location.

What other communities in California have sirens? Many communities near Berkeley have sirens, including the City of Oakland and UC Berkeley as well as Contra Costa County, as noted above. Oakland’s sirens were installed as a result of the 1991 Tunnel fire. Lake County installed sirens following the deadly Valley Fire in 2015. Sonoma County is considering installing sirens following the deadly North Bay fires of 2017. Mill Valley is exploring the use of mobile sirens. Berkeley now has the opportunity to install sirens before, rather than after, a disaster occurs.

Will people take them seriously? The decision-making process for people to decide to take action in an emergency is complicated and varies from person to person. *Studies show that people look for confirmation from more than one source before they take action.*²¹ Sirens can reinforce other messages about imminent danger.

¹⁹ <https://www.nytimes.com/2018/11/21/us/paradise-fires-emergency-alerts.html>

²⁰ https://www.dhs.gov/sites/default/files/publications/Outdoor-Sirens-MSR_0315-508.pdf

²¹ <https://www.osti.gov/servlets/purl/6137387>

Although conventional wisdom may worry about a “cry wolf” or “warning fatigue” effect from too many warnings, research about these effects is mixed.²² Ensuring the credibility of the sirens and avoiding a “cry wolf” effect should be considered when choosing a siren system and testing plan.

Can’t the city go door-to-door instead? If there is a fire moving at the scale and speed of recent California wildfires, responders will not have enough time to alert a large portion of the population by going door-to-door. The City will be balancing its resources between fighting the fire, clearing the roads, and knocking on doors. According to Berkeley’s draft Evacuation Plan:

“Community members should not expect door-to-door notifications or assistance from emergency responders during evacuation.”

What is the best siren system? This recommendation does not specify a specific siren brand or system. A 2015 FEMA survey of available siren systems²³ shows that there are many features that can be varied in different systems, including:

- Price
- Number and location of sirens
- Static or mobile sirens
- Materials (concrete, wood, or metal poles)
- Type of sounds (wailing, beeping, voice)
- Power backup
- Methods of activation (in-person, radio, wired, wireless)
- Testing options (low-volume and silent testing)

We recommend that Berkeley select a system that provides the most cost-effective solution to meet the goals described in this recommendation: providing reliable coverage for the maximum number of Berkeley households possible, while offering enough flexibility of controls so that sirens can be effectively integrated into a complete alerting protocol.

ALTERNATIVE ACTIONS CONSIDERED

Several interrelated recommendations were made to City Council in 2017 and 2018 addressing fire safety and community disaster preparedness. These recommendations included many possible actions covering a broad range of preparedness and hazard mitigation activities. Progress is already being made on some of these priorities.

Sirens should be part of a suite of emergency alerting options; other options could also be enhanced in addition to this one:

- Berkeley could forgo installing sirens, and focus on improving existing protocols to get the maximum effectiveness from the existing suite of alerting tools, particularly Wireless

²² <https://nvlpubs.nist.gov/nistpubs/TechnicalNotes/NIST.TN.1950.pdf>

²³ https://www.dhs.gov/sites/default/files/publications/Outdoor-Sirens-MSR_0315-508.pdf

Emergency Alerts (WEA, also used for Amber Alerts). A new set of guidelines for WEA and Emergency Alert System (EAS) alerting is expected from Cal OES in July 2019, and Berkeley will be required to comply with those guidelines within six months. We look forward to Berkeley's continued improvement of these protocols.

- Mass distribution of NOAA weather radios has been discussed as an alternative to sirens. However, the cost to distribute weather radios to every household in Berkeley would reach \$1+ million, and each radio would need to be programmed to receive appropriate alerts. It would also be challenging to ensure proper maintenance and testing of the radios over time. However, a limited distribution to residents who are deaf and hard of hearing should be considered as an accessible supplement to sirens.
- Relying on police and fire vehicle apparatus (bullhorns or sirens) is another option. However, these have a limited audible range²⁴ and would not be able to alert large portions of the city at once. There may also be physical obstacles that could limit the ability of vehicles to reach all the areas that need alerting. It should not be forgotten that such systems may have a substantial role to play in an early warning system specifically designed to evacuate seniors and people with disabilities.

CITY MANAGER

The City Manager appreciates the research and work put into this report by the Disaster and Fire Safety Commission. A siren alerting system could be a valuable tool for use in the City's overall emergency notification system. Given the number of modern options for sirens, the high cost in purchase and replacement of such a system, and the additional FTE that would be necessary to install and maintain the system, the Fire Department is researching options and alternatives. The City Manager refers this to the budget process for consideration of funding sources and prioritization with the overall needs of the City.

CONTACT PERSON

Keith May, Assistant Fire Chief, Berkeley Fire Department, 510-981-5508

Attachments:

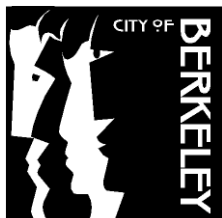
- 1: Attachment A: Alerting Systems Available for Berkeley
- 2: Attachment B: Memorandum: Alerting and Warning System Project Update, November 2004

²⁴ <https://www.fireapparatusmagazine.com/articles/print/volume-22/issue-4/features/siren-limitation-training.html>

ATTACHMENT A
Alerting Systems Available for Berkeley Emergencies (February 2019)

Alerting system	Requires Opt-in?	Description	Reaches these people	Will not reach these people
Systems to alert people who are not actively seeking information:				
WEA (Wireless Emergency Alert)	Does not require opt-in	An Amber Alert-style message with a loud squawking sound, vibration, and brief text message on cell phones.	Anyone with a cell phone that is powered on. Reaches all phones in an area, including residents and visitors passing through.	Anyone without a cell phone or with their cell phone in airplane mode or fully turned off. It is also possible for people to opt out of WEA alerts.
AC Alert (Alameda County Alert)	Requires opt-in except landlines	Sends emergency messages by landline phone, email and cell phone.	Houses with a landline, plus people who have opted in for cell phone or email messages. Reaches people based on their residence address, not their current location.	Anyone without a landline, unless they have opted in. Only 5-10% of Berkeley residents have opted in to this system. ¹
Emergency Alert System	n/a	National public warning system that broadcasts on TV, radio, cable, and satellite TV. Also broadcasts to weather radios.	Anyone who is watching or listening to broadcast TV or radio in a specified area.	Anyone not watching or listening to a live TV or radio broadcast at the time of the emergency. Streaming (Netflix, Hulu etc.) do not show EAS messages.
Nixle	Requires opt-in	Sends messages by email and cell phone and on the web. Often used for lower-urgency messages.	Anyone who has signed up to get messages.	Anyone who has not signed up.
Information that people can actively seek in an emergency, but won't receive passively:				
City Website, Twitter, Facebook, Nextdoor	n/a	The City plans to post emergency messaging on the City website and social media.	People who are actively seeking information, able to access the internet, and know where to look for City information.	Anyone not actively seeking information online, or not able to access the internet.
1610 AM Radio	n/a	The City plans to output emergency messages on 1610 AM radio.	People who are actively seeking information, have a radio, and know to go to 1610 AM.	Anyone not actively seeking information online, or who does not have a radio. Also, 1610 AM radio does not reach all of Berkeley.

¹ Estimate based on data from Berkeley Office of Emergency Services, 3/29/2019.



Department of Fire and Emergency Services
Office of Emergency Services Division
William Greulich, Manager

MEMORANDUM

Date: November 5, 2004

To: Phil Kamlarz, City Manager

Cc: Lisa Caronna, Deputy City Manager
Arrietta Chakos, Chief of Staff
Reginald Garcia, Fire Chief
Roy Meisner, Police Chief

From: Bill Greulich, Emergency Services Manager

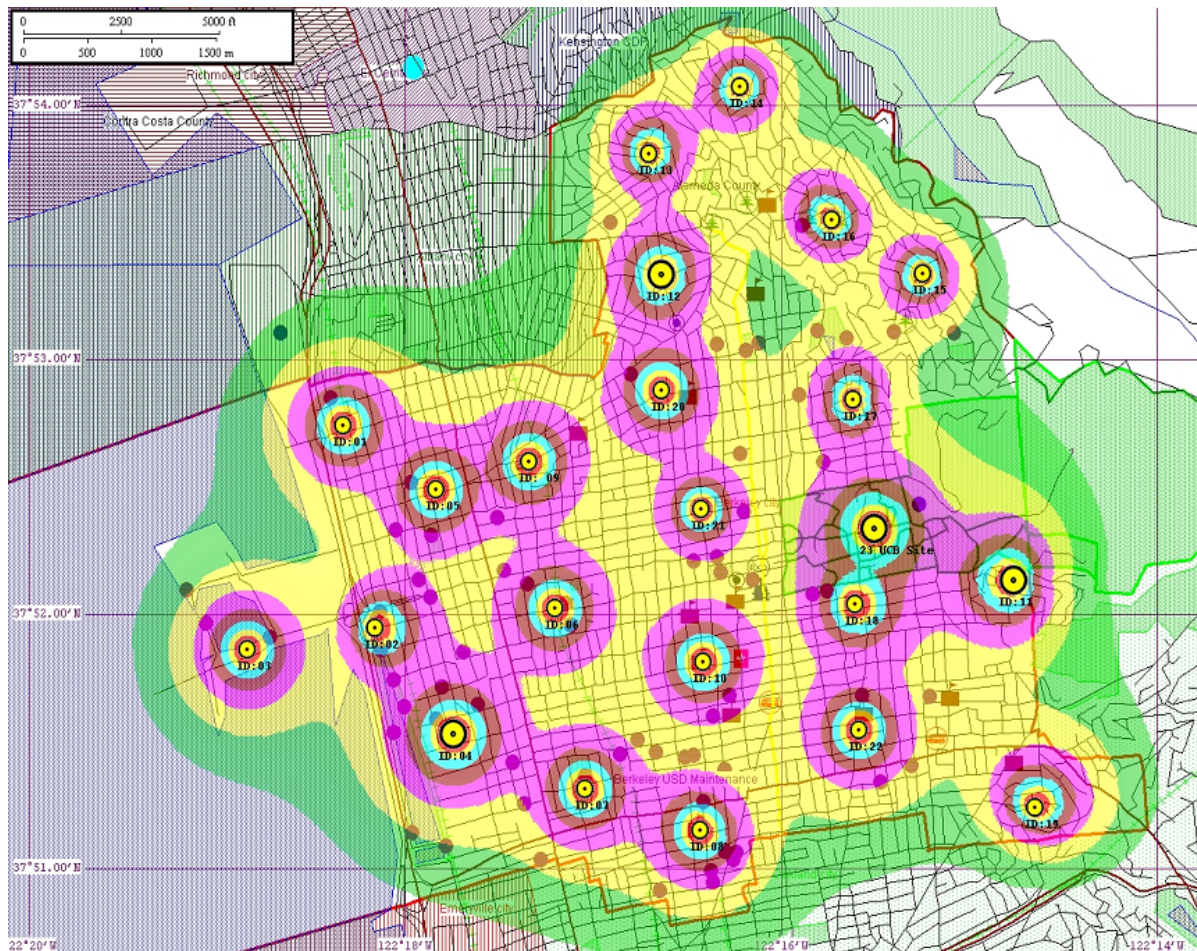
Alerting and warning system project update and recommendations for further action

As discussed in our quarterly meeting of May 28th, here is a summary of work completed to date and my recommendations for further action.

The first phase of the project as outlined in my memorandum of October 14, 2003, "Berkeley Outdoor Warning System (Siren) Project Recommendation" has been completed. Hormann America, Inc. of Martinez, CA in partnership with ProComm Marketing was awarded the contract under IF-9046-04 for \$9,250. Hormann and ProComm designed, installed and continue to support Contra Costa County and the City of Oakland Alerting and Warning Systems (AWS).

Based on criteria derived from the FEMA "*Outdoor Warning Systems Guide*", Civil Preparedness Guideline 1-17, Hormann produced a design requiring the placement of 23 sirens (19 @ 118 dB and 4 @ 121 dB). This design was field verified at four Berkeley locations.

Here are my recommendations.



Sound intensities are shown as contours, the outermost is 70 – 75 dB.

Recommendations –

1. Discontinue the implementation of a citywide siren system. Implementation of a citywide siren system is of limited emergency value, may be detrimental to the health of the community, and exhibits poor cost benefit characteristics.

Cost considerations –

The non-recurring capital estimate is based on City funding of 21 sirens totaling **\$801,000**. This is in alignment with the cost to the City of Oakland of \$1.03 million for 27 units. There would be recurring costs associated with power and maintenance.

The initial public education campaign is estimated at **\$100,000**. There would be recurring costs associated with public education.

Cost estimates for the permitting process are difficult. It is likely that significant staff time would be required to complete an EIR and the other associated work. It is estimated that **0.5 FTE** of City staff would be necessary over a six-month period to accomplish this.

Public and Environmental Health Consequences -

The FEMA “*Outdoor Warning Systems Guide*” has guided the design of siren systems nationwide since May of 1980. Recent work has challenged some of the fundamental assumptions on which the guide was based. The current conclusion is that 123 dB sources will likely be considered “highly annoying” by a noticeable segment of the population.

The FEMA guide also proposed the public would accept loud warning devices regardless of their perceived annoyance because of the potentially life saving value. This belief however, does not accurately reflect the possibility that a 118 or 121 dB sound could in fact contribute to public hearing loss, especially to those who are most sensitive, such as children or the frail. While the guide makes a valid point in light of a life-threatening emergency, it does not accommodate the need to activate the sirens regularly to familiarize the public with their existence. A perceived reduction in quality of life is likely in those members of the community who view the siren testing as “highly annoying”. This phenomenon was demonstrated during the field-testing of Phase I.

City Environmental Health staff has concluded that the sirens would qualify for the emergency use exemption of the City Noise Ordinance. It is also their conclusion that preparation of an Environmental Impact Report (EIR) would be necessary.

Siren System Efficacy -

Sirens target only the community members capable of hearing the warning or alerting tone. Many factors contribute to limiting the number of people who are able to recognize the alert or warning. These include hearing impairments, being inside a building at home, school or work, in an automobile, or in a higher noise environment, i.e. listening to music or operating a power tool.

Hearing a siren sounding is not enough in and of itself. In order to be effective the public must know the system exists before it is used, how to recognize an alert, warning, or test, and what subsequent actions are expected or necessary.

2. Continue to work with Toxics Management and the two private facilities covered by the California Accidental Release Prevention Program (CalARP).

Hazardous materials and the related use of such materials in an act of terror are the best matches to a citywide siren system. In fact, the “East Bay Corridor of Safety” community direction of “Shelter, Shut and Listen” comes from the Contra Costa County alerting and warning system which is focused on and funded by local chemical manufacturing companies. Two facilities in Berkeley possess hazardous materials in quantities requiring implementation of State accidental release prevention programs. Sirens would benefit the community in the event of a release of material from either of these facilities.

3. Continue to work with UCB and the “Corridor of Safety” concerning their siren programs.

UCB has a limited outdoor warning and alerting system in place. Neighboring communities, in particular the City of Oakland, have sirens that may also impact Berkeley when activated.

These agencies have not currently produced a complete, integrated set of procedures and protocols for system activation. It is recommended that staff continue to work with UCB and the “Corridor of Safety” on the creation of protocols for the activation of their systems.

4. Investigate alternative alerting and warning technologies – mobile siren.

Berkeley has a history with these systems and has experienced their lack of utility in public safety programs and their long-term resource burden. However, the potential use of a small number of deployable or mobile sirens with voice capability may be valuable. Mobile sirens could be pre-deployed or brought to areas of high risk as needed, such as placement in the Hills during fire season. Addition of a voice capability could expand their utility as a potential public address tool. While they would be more costly on a unit basis, the city would not need to purchase a large number, and a basic capability in outdoor warning might be had at a more affordable cost.

5. Investigate alternative alerting and warning technologies – weather radio.

Currently, only two Federal programs exist to alert and warn the public, the commercial radio and television based Emergency Alerting System (EAS), and the National Weather Service (NWS) weather radio program. The City of Berkeley has the ability to utilize the EAS; it is recommended the City investigate the weather radio program. The program is very simple. Radios are available which turn themselves on when a NWS alert signal is received. Community members are not burdened by having to listen all the time to the warning station. The NWS signal is broadcast from a tower in San Francisco or on Mt. Diablo. Several key findings are:

- The radios can be placed anywhere, including in schools, and with members of vulnerable populations.
- The alert would be citywide; all radios in the reach of the Diablo or SF tower would be activated.
- The radios are affordable at approximately \$30 each.
- The radios do not have any obvious adverse health impact and can be acquired with visual aids for the hearing impaired.
- Significant Federal support for this program exists.

It is recommended that staff investigate the possibilities of utilizing the NWS system.



Office of the City Manager

CONSENT CALENDAR
September 28, 2021

To: Honorable Mayor and Members of the City Council
 From: Dee Williams-Ridley, City Manager
 Submitted by: Abe Roman, Interim Fire Chief, Fire Department
 Subject: Contract: Genasys for Citywide Outdoor Warning System

RECOMMENDATION

Adopt a Resolution authorizing the City Manager to enter into contract with Genasys, Inc. for consulting, planning, construction, installation, software hosting, and implementation of a Citywide Outdoor Warning System (OWS), for a total amount not to exceed \$1,974,457.

FISCAL IMPACTS OF RECOMMENDATION

The contract covers system installation, including permits and fees and three years of operations, includes two elements:

1. Purchase and installation of OWS speaker arrays and related accessories at fifteen (15) sites, including State and local sales taxes and projected permit fees.
2. System operational and maintenance support for three (3) years.

The FY 2022 Adopted Budget included \$2 million in funds from Measure FF for the OWS.

CURRENT SITUATION AND ITS EFFECTS

The City of Berkeley uses a suite of alerting systems to provide information and instructions to the community:

- AC Alert and Everbridge App
- Zonehaven
- Radio: 1610 AM, KQED 88.5 FM, or KCBS 740 AM
- Nixle
- Social media Twitter
- City Webpage
- Media partners

These systems are powerful and provide multiple options for community members to receive emergency alerts. However, many of these systems require users to “opt in” to receive alerts, and/or to “tune in” during an emergency.

The OWS will supplement these systems by providing acoustic alerts to people who are outdoors. For wildfire in particular, officials will activate the OWS to alert threatened community members of evacuation warnings and orders. Like the Wireless Emergency Alerts that Alameda county will use, this type of public warning does not require the community to ‘sign up’ to receive emergency messages from emergency officials. These systems together will help to target people in danger based on their real-time locations. Because the OWS does not require signup, it will also be beneficial to Berkeley visitors.

The OWS is a Strategic Plan Priority Project, advancing the City’s goals to:

- Provide state-of-the-art, well-maintained infrastructure, amenities, and facilities;
- Create a resilient, safe, connected, and prepared city; and
- Be a customer-focused organization that provides excellent, timely, easily-accessible service and information to the community.

BACKGROUND

In May 2019, the Disaster and Fire Safety Commission and the Fire Department-Office of Emergency Services jointly submitted a “Recommendation to Install an Outdoor Public Warning System (Sirens) and Incorporate it into a Holistic Emergency Alerting Plan.” The item was referred to the City’s budget process.

In November 2020, Berkeley voters approved Measure FF. This measure, supplemented by internal budget neutral plans, will substantially improve fire, emergency medical, rescue, disaster preparedness and fire prevention service delivery to the Berkeley community. A key element of Measure FF was funding for research into and installation of an OWS.

In an effort to streamline Berkeley’s OWS project implementation, staff recommends selecting Genasys, Inc. based on its response to another California city’s OWS contract. Established guidelines allow the City to award a contract to a vendor based on its response in another California city’s Request for Proposal (RFP) process (“piggybacking”).

The City of Laguna Beach, California released an RFP for consulting, planning, construction, installation, software hosting, and implementation of a Citywide OWS. The solicitation closed on August 14, 2019 and four proposals were submitted. Upon review the City of Laguna Beach selected Long Range Acoustic Device as the best most responsive proposer to meet the specifications, thusly awarding the firm with Contract

Number Agreement No. 19-132. Long Range Acoustic Device has since been acquired by Genasys, Inc. There is no fee for the City of Berkeley to utilize the contract.

ENVIRONMENTAL SUSTAINABILITY AND CLIMATE IMPACTS

The OWS does not create environmental sustainability or climate change impacts.

RATIONALE FOR RECOMMENDATION

Existing emergency alerting systems generally require community members to opt-in or tune in during an emergency. The OWS will increase responders' ability to reach community members who are outside based on their real-time location. "Piggybacking" on the City of Laguna Beach's procurement process will reduce staff time and fast-track OWS implementation.

ALTERNATIVE ACTIONS CONSIDERED

- 1: Use additional staff time to undergo a Berkeley-specific RFP process, creating project delays and likely resulting in a similar contract and cost.
- 2: Take no action; rely on existing emergency alerting systems and leave community members without an OWS.

CONTACT PERSON

Keith May, Assistant Chief, Special Operations, Fire Department, (510) 981-5508

Attachments:

- 1: Resolution: Contract: Genasys for Community Outdoor Warning System

RESOLUTION NO. ##,###-N.S.

CONTRACT: GENASYS FOR COMMUNITY OUTDOOR WARNING SYSTEM

WHEREAS, the City of Berkeley uses a suite of alerting systems to provide information and instructions to the community, many of which require users to “opt in” to receive alerts, and/or to “tune in” during an emergency; and

WHEREAS, an Outdoor Warning System (OWS) will supplement these systems by providing acoustic alerts to people who are outdoors; and

WHEREAS; in May 2019, the Disaster and Fire Safety Commission and the Fire Department-Office of Emergency Services jointly submitted a “Recommendation to Install an Outdoor Public Warning System (Sirens) and Incorporate it into a Holistic Emergency Alerting Plan”; and

WHEREAS, Berkeley voters approved Measure FF in November of 2020; and

WHEREAS, Measure FF, supplemented by internal budget neutral plans will result in a substantial change and improvement to the way that fire, emergency medical, rescue, disaster preparedness and fire prevention services are delivered to the community; and

WHEREAS, the OWS is factored into the FY 2022 Adopted Budget; and

WHEREAS, the City of Laguna Beach, California released a request for proposals (RFP) for consulting, planning, construction, installation, software hosting, and implementation of a Citywide OWS and selected Long Range Acoustic Device as the best most responsive proposer to meet the specifications; and

WHEREAS, Long Range Acoustic Device has since been acquired by Genasys, Inc.; and

WHEREAS, in an effort to streamline Berkeley’s OWS project implementation, staff recommends selecting Genasys, Inc. based on its response to the City of Laguna Beach’s RFP process.

NOW THEREFORE, BE IT RESOLVED by the Council of the City of Berkeley that the City Manager is authorized to execute a contract and any amendments with Genasys, Inc. to provide the consulting, planning, construction, installation, software hosting, and implementation of a Citywide OWS, for a total amount not to exceed \$1,974,457, funded by Measure FF.

Proposed reboot of “Replanting” Grant Program of the KFPD

We propose a reboot, a refashioning, and an increased investment in this program.

House hardening has become a major focus of emergency preparedness in California. An article in the February 17, 2022 edition of the *Marin I-J* described that county-wide effort to motivate homeowners to modify their vegetation to improve public safety. This has also become an issue of home insurance, which should be a major focus of Kensington’s Fire Protection District, as the KPOA and other civic groups have pointed out. The *Marin I-J* reported:

“Twelve insurance companies representing 40% of the insurance market offer discounts to homeowners taking hardening measures. Three years ago, only 7% of the market was offered such discounts,” [said State Insurance Commissioner Ricardo Lara.]

For further details see <https://www.marinij.com/2022/02/17/marin-fire-officials-applaud-new-state-standards/>

A massive public information campaign is under way in Marin County to improve safety, lower homeowner insurance costs, and avoid insurance cancellations. Kensington, rated the most dangerous zip code in the Bay Area for fire risk, needs to get ahead of potential future trends of increased fire danger and insurance cancellations. This can be encouraged by incentives to homeowners to harden their residences in various ways. One approach is education about structural renovations. Another is through modification, removal, and replanting of dangerous vegetation, which is the objective of this program.

The traditional “replanting” grant program allotted \$3000 a year for all of Kensington. With 2200 households, this program is inadequate (at less than \$1.50 per household) and does not lead the community in encouraging more sensible plantings. The program, if only for reasons of raising public awareness, needs to be more fully funded and publicized. Criteria for awarding these grants, their matching funds, and their reporting back, need to be updated and clarified.

We propose the following guidelines for a rebooted program:

1. The amount in the fund should be raised immediately to \$25,000, with the indication that more can be allotted if demand and success meet expectations.
2. These will be matching grants, at the rate of \$1 District for \$1 homeowner, \$2 homeowner, or \$3 homeowner, depending on the project (see criteria below).
3. Priority will be given to projects that (a) remove especially hazardous plants in concentrated areas, (b) affect several properties, (c) have significant matching funds from homeowners, (d)

affect roadways, sidewalks, and other evacuation routes, (e) benefit homeowners of limited resources.

4. We recognize that many Kensington homeowners have no dire financial need for assistance to renovate their gardens. This is largely a consciousness-awareness program.

5. The Emergency Preparedness Committee will evaluate grant proposals and send recommendations to the Board for final decision.

We propose a major public education and solicitation effort.

Attached is a draft grant proposal.

Request for subsidy to remove and replace hazardous plants in Kensington

Name and Address:

I am a Kensington homeowner at ___ this property ___ another property (please name):

PLEASE READ BEFORE ANSWERING

There are three types of vegetational hazards: (1) surface plants, mulch, etc., with low probability of spreading fire; (2) ground plants, such as bushes and taller herbs, that can contribute to fuel ladders spreading to crown fires; and (3) large flammable trees, which can be removed but also whose flammability can be reduced by removal of fuel around their bases and (e.g., eucalyptus) by removal of low-hanging peeled bark. Please be specific about the types of vegetational hazards that you are asking us to subsidize the removal thereof.

Priority of (matching) funding will be given to projects that (a) remove especially hazardous plants in concentrated areas, (b) affect several properties, (c) have significant matching funds from homeowners, (d) affect roadways, sidewalks, and other evacuation routes, (e) benefit homeowners of limited resources. If you are making requests in collaboration with neighboring homeowners, please explain as part of your application.

Priority for removal will be given to hazardous plants, viz.: juniper, eucalyptus (especially surrounding surface fuels and peeling bark), and bamboo (especially dried or drying), and any other desiccated shrubbery or ground plants, as well as dead trees and shrubs, and other accumulated fuel loads.

1. These are the plants I want to remove (please describe and attach photos):

Type I vegetation:

Type II vegetation:

Type III vegetation:

2. Here are the neighboring properties (provide addresses) that would be threatened by my (our) plants if they ignited (provide details):

3. This is the estimated cost for removing those plants (please provide estimates):

4. Here is what I will contribute and what my neighbors will contribute:

5. Amount requested as a subsidy from the Kensington Fire Protection District:

6. Here is why our project deserves priority of funding (see criteria above):

7. Dates when you will start and finish this project:

8. Name(s) of person(s) who will receive the subsidy, if granted: