

**Kensington  
Emergency Preparedness  
Committee's**

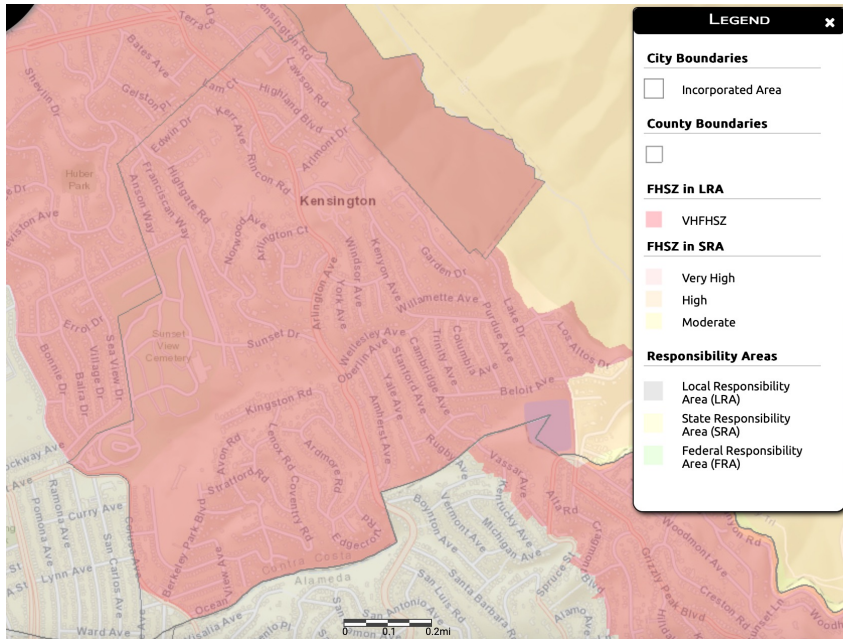
**RECOMMENDATION  
TO KFPD BOARD**

**Early Warning Systems**

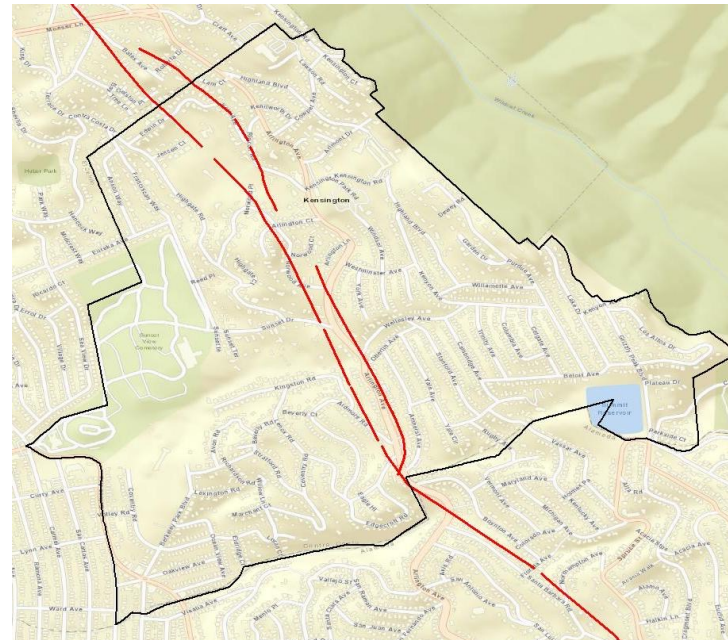
# Need for Early Warning Communication

- Multiple Forms of Communication Important to Warning Residents
- Kensington unique; subject to multiple hazards

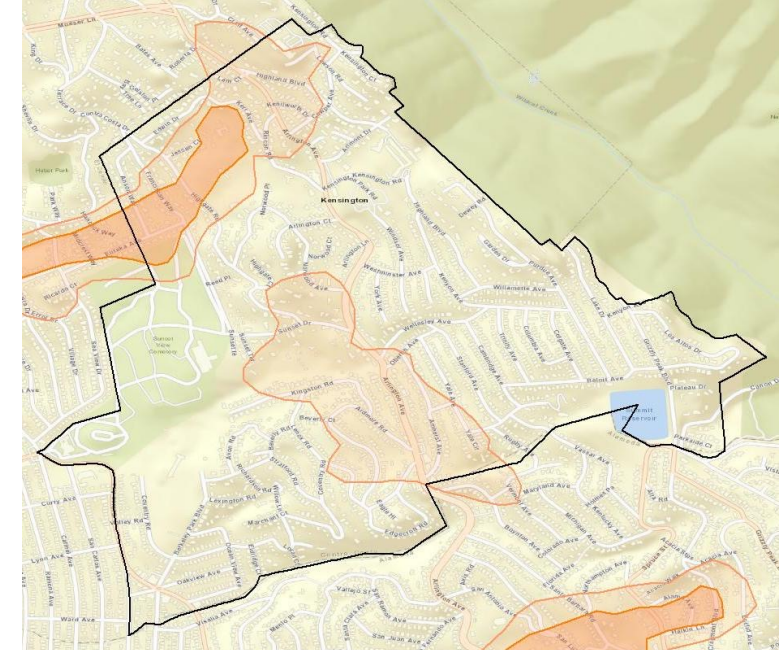
## WILDFIRE



## EARTHQUAKE FAULTS

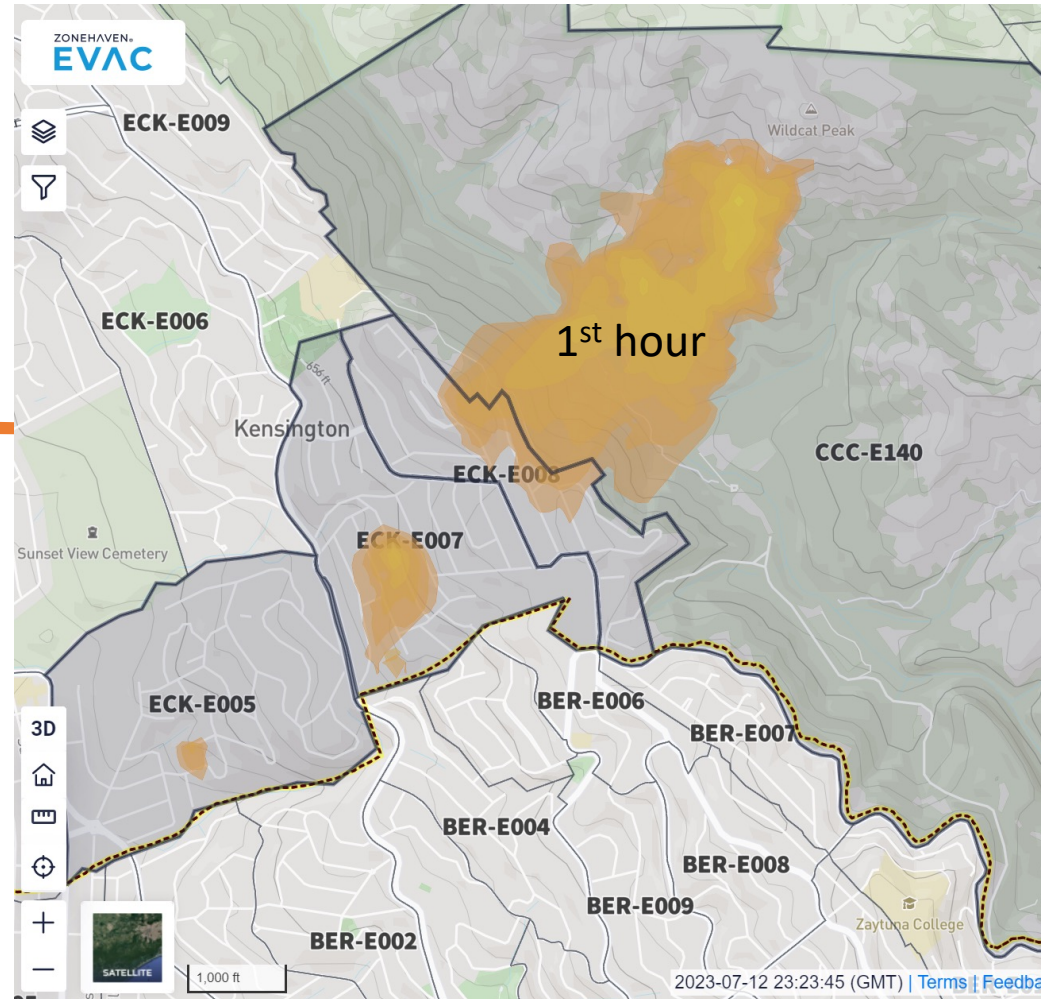


## LANDSLIDES



# How fast does Kensington need to be alerted?

Worst case fire simulation modeled in Genasys's Zonehaven software during a Diablo Wind event with ignition starting at the base of Wildcat Peak.



## ECK Wildcat Canyon PDS RFW 24hr

Orinda, Contra Costa County  
2022-10-26 20:08:46 (GMT)  
ELMFIRE

Show simulation conditions

### Impacted zones

#### Summary

POPULATION	2,950
VEHICLES	2,612
AREA	191.1 acres
STRUCTURES	1,741
ZONES	4

#### View by hour

All TOTAL FIRE AREA 191.1 acres

1 .11 acres

Create New

This is a model to provide the first on-scene Incident Commander a better tool to assess where the fire will be at different time intervals. (Thanks to Joe Grupalo, Genasys)



## Sources of Early Warning Communication

- ✓ County Community Warning System (CWS)
  - voice call (cell & landline), text, email notifications
- ✓ Nixle
  - text and email notifications
- ☐ Long Range Acoustic Devices (LRAD)

# What Are LRADs as Opposed to Sirens?

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Sirens emit tones only; generally understood to mean shelter in place in Contra Costa County



LRADs are communication systems that provide tone and voice messages specific to the hazard via powerful speakers



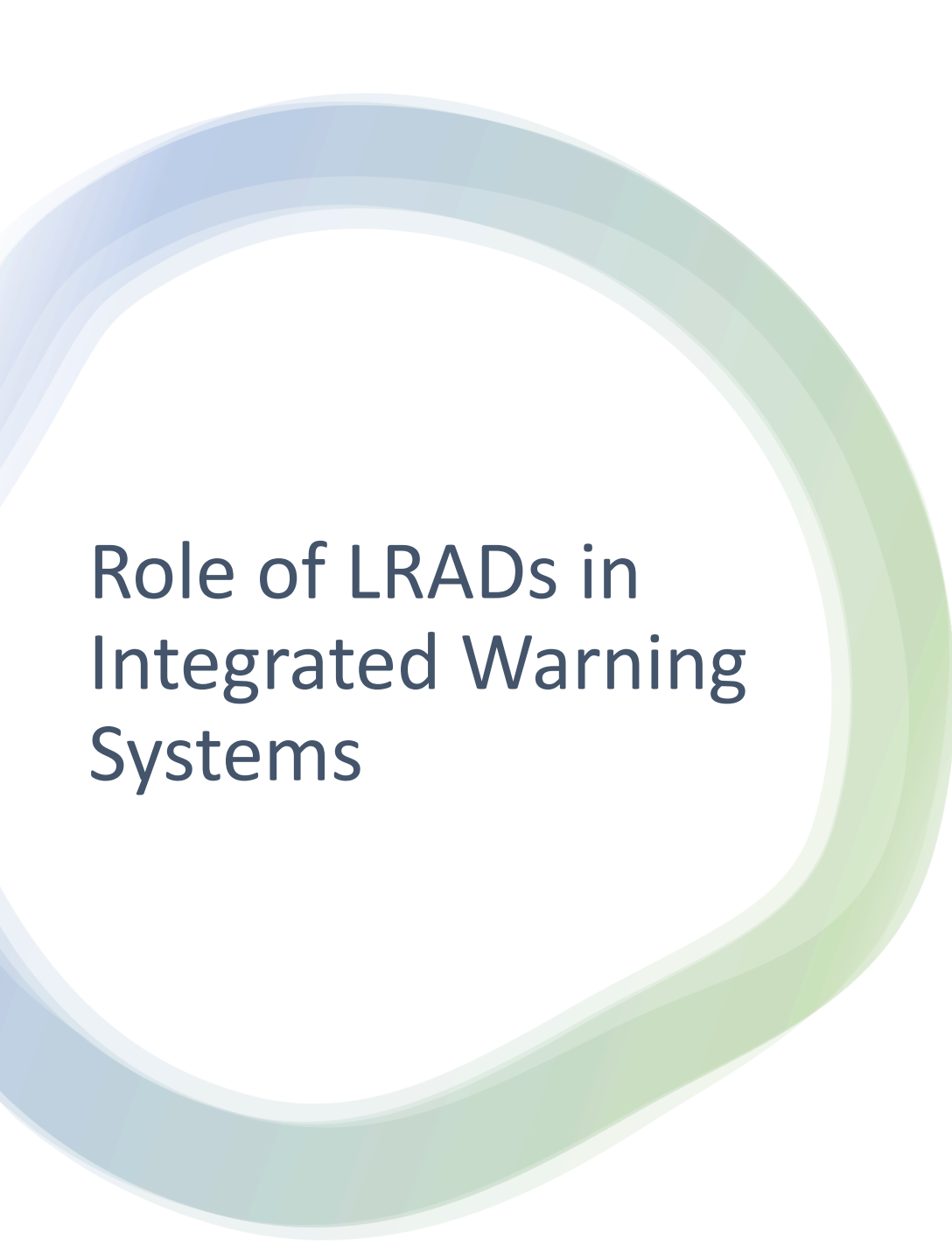
LRADs can be part of an integrated emergency warning system

# Examples of LRAD Systems



# Examples of LRAD Systems





## Role of LRADs in Integrated Warning Systems

- ❖ Efficiently deliver critical localized safety information during and after an emergency event such as:
  - Wildfire: offering evacuation alerts
  - Earthquake: post-event safety information such as road closures
  - Local Hazardous conditions
- ❖ Redundancy
  - LRADs provide critical safety information to the public if other warning systems fail, e.g., due to lost cell coverage, power outages





# Communities with LRADs

- ❖ Berkeley (similar hazards to us)
- ❖ Paradise (after failure of their CWS)
- ❖ Mill Valley/Marin County
- ❖ Newport Beach
- ❖ Laguna Beach
  - LRAD system used during Emerald Fire in February 2022
  - Used in conjunction with Orange County alert system (CWS) and NIXLE alert system
  - Positive experience; adjusting system to make communication more efficient



# Examples of Costs

## ❖ City of Paradise

- 21 Devices
- Planning Report:
  - \$40,000
  - Produced by Genasys
- Installation:
  - Average \$138,000 per device
  - Includes permits, fees, annual maintenance and 3-year service agreement
  - Installation contractor: HQE Systems

## ❖ City of Berkeley

- 15 Devices
- Planning and Installation:
  - Average \$132,000 per device
  - Includes permits, fees, etc. and 3-year service agreement
  - Used Laguna Beach contract to sole source project to Genasys



# Estimating Cost for Kensington

## Request for Proposal (RFP) is required

- ❖ Scoping
  - How many LRADs needed to cover Kensington
  - Where are the best locations for LRAD placement
- ❖ Specifications
  - Additions to base system, e.g., battery back-up, solar panels, software
- ❖ Service & Maintenance
  - Agreement with Contractor as per Paradise/Berkeley



# Funding Sources

- ❖ FEMA Grants: cover 75% of project cost

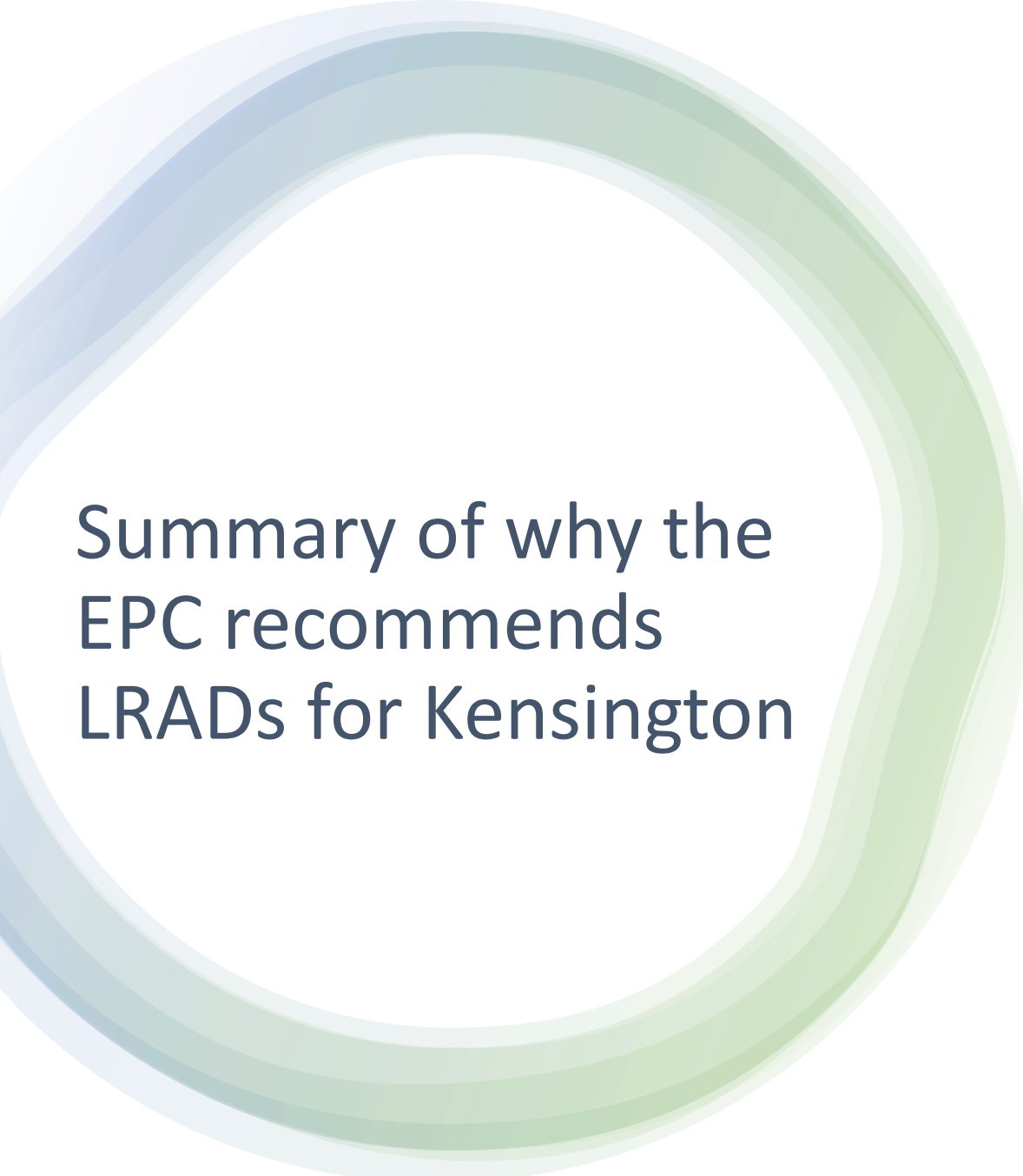
FEMA grant applications must go through the state as local entities such as special districts are sub-applicants. **\*Need an updated Local Hazard Mitigation Plan to qualify for these grants**

Types of FEMA grant programs

- i. Hazard Mitigation Grant
- ii. Pre-Disaster Mitigation Grant Program
- iii. Building Resilient Infrastructure and Communities Grant Program

- ❖ Identify remaining 25% funding

- i. Cal FIRE grant
- ii. Contra Costa Measure X
- iii. District General Fund allocation



Summary of why the  
EPC recommends  
LRADs for Kensington

## Kensington faces multiple high-risk hazards!

### LRADs

- Complement & expand existing warning systems
- Will function when other systems are down; redundancy
- More flexible in conveying Kensington-specific information
- Reaches more residents than other systems



# EPC Recommendations for procurement

- EPC continue to explore process for obtaining LRADs
  - Develop elements of an RFP
    - EPC to research using Paradise example as template; EPC to recommend who should write RFP
  - Identify process for updating Local Hazard Mitigation Plan
    - Previous LHMP developed by ECFD; possible similar process
  - Understand the Cal OES/FEMA subapplication process and grant funding options
    - EPC to research; identify best option(s) and who to write subapplication
- Resident Outreach & Feedback
- Coordinate with County CWS
- Report Back to Board on Timelines and Recommended Action