CALIFORNIA EARTHQUAKE EARLY WARNING
ADVISORY BOARD
April 30, 2018 MEETING

Cal OES
GOVERNOR'S OFFICE
OF EMERGENCY SERVICES

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PUBLIC MEETING NOTICE

California Earthquake Early Warning Advisory Board
Public Notice/Agenda
April 30, 2018
10:30 PM – 12:30AM

Meeting Site:
Governor's Office of Emergency Services
3650 Schriever Avenue
Mather, CA 95655
Multipurpose Rooms 2

Date of Notice: April 20, 2018

NOTICE IS HEREBY GIVEN that the California Earthquake Early Warning Advisory Board will meet at the Governor's Office of Emergency Services Multipurpose Rooms 2 as set forth below. The Bagley-Keene Open Meeting Act applies to meetings of the California Earthquake Early Warning Advisory Board, which are open to the public. Public participation, comments, and questions are welcome for each agenda item. Agenda items may be taken out of order. While the board intends to webcast this meeting, it may not be possible to webcast the entire open meeting due to limitations on resources.

Item	Agenda Topic
I	Welcome – Call to Order –Approval of Previous Minutes – Opening Remarks
II	Business Plan Presentation and Discussion
III	Public Comment*
IV	Adjourn

* Public comment will be taken before any official actions.

PUBLIC COMMENT: If the committee determines that there is not enough time to hear from all those wishing to present comments, the committee will select among those wishing to testify to ensure representation of a range of viewpoints and interests. Those providing public comment

may choose to supplement their testimony with written statements that will be made part of the official public meeting record.

SUGGESTIONS FOR SUBMISSION OF WRITTEN MATERIALS: It is requested that written materials be submitted to the California Earthquake Early Warning Advisory Board Executive Officer prior to the meeting. If this is not possible, it is requested that at least 30 copies be submitted to the California Earthquake Early Warning Advisory Board Executive Officer. This material will be distributed to the California Earthquake Early Warning Advisory Board members.

ACCESS TO THE HEARING: The meeting is accessible to those with access and functional needs. A person who needs an access and functional needs-related accommodation or modification in order to participate in the meeting may make a request by contacting Emily Holland at (916) 845-8828 or sending a written request to the Governor's Office of Emergency Services at 3650 Schriever Avenue, Mather, CA 95655. Providing your request at least five (5) business days before the meeting will help ensure availability of the requested accommodation.

For further information, please contact:

General Information:
Emily Holland, Outreach and Education, California Earthquake Early Warning Program at (916) 845-8828 or via email at Emily.Holland@caloes.ca.gov.

Media Information:
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PREVIOUS MEETING MINUTES

California Earthquake Early Warning Advisory Board
California Earthquake Early Warning Advisory Board
Meeting Minutes

Governor's Office of Emergency Services
Multi-Purpose Room
Mather, CA
November 30, 2017

Members Present:
Mark Ghilarducci, Director of the Governor's Office of Emergency Services
Samantha Lui, designee of Diana S. Dooley, Secretary of the California Health and Human Services Agency
Stephanie Dougherty, designee of Brian Kelly, Secretary of the California State Transportation Agency
Lynn von Koch-Liebert, designees of Alexis Podesta, Secretary of the California Business, Consumer Services and Housing Agency
Barry Anderson, Vice President, Pacific Gas and Electric Company, Electric Distribution appointed by the Governor and represent the utilities industry.
Lupita Sanchez Cornejo, Director of External Affairs, Greater Los Angeles Region AT&T appointed by the Speaker of the Assembly and represents the interests of private businesses.
Robert Charbonneau, designee of Janet Napolitano, President of the University of California
Tom Kennedy, designee of Timothy White, California State University Chancellor

Staff Present:
Tina Curry, California Earthquake Early Warning, Governor's Office of Emergency Services
Ryan Arba, California Earthquake Early Warning, Governor's Office of Emergency Services
Tina Walker, Executive Officer from Governor's Office of Emergency Services
Emily Holland, California Earthquake Early Warning, Governor's Office of Emergency Services
Art Botterell, California Earthquake Early Warning, Governor's Office of Emergency Services
Jill Talley, Chief Council, Governor's Office of Emergency Services
Reggie Salvador, Chief of Legislative and External Affairs, Governor's Office of Emergency Services

I. Welcome / Call to Order / Introductions

- Director Ghilarducci called the meeting to order.
- Tina Walker conducted the roll call and the proposed agenda was adopted.
- Director Ghilarducci introduced the Advisory Board members and made opening remarks.

II. California Program Update

- Ryan Arba presented a general program update and outline of the upcoming meeting topics. There was a discussion about the limited public rollout. Many projects are currently underway in a testing phase, but there are interim steps before the program is fully rolled out to the public and the Earthquake Early Warning Board will have a vital role in shaping this process.
- Tom Kennedy expressed concerns about individual warning via cell phone but sees the benefits of automated actions.
- Robert Charbonneau expressed an interest in taking an institutional path rather than individual.
- Lupita Sanchez Cornejo expressed interest in ensuring the program is implemented according to an overarching strategic plan, not piecemealed, and that the system can set a path for the development of systems outside of California.
- Barry Anderson expressed support for developing a plan to engage with utilities companies and explain the potential benefits of the system. The plan should begin with employee protection first followed by system-wide safety measures.
- Stephanie Dougherty expressed the need of safeguarding existing transportation infrastructure, specifically bridges, trains, high-speed rail, and public safety communities, as well as the importance of the system to first responders and Caltrans maintenance crews.
- Samantha Lui highlighted that recent experience with the October wildfires taught us that there are knowledge gaps in identifying the most at risk population levels and that marks an area of improvement that should be kept in mind during this development process.
- Lynn von Koch-Liebert expressed an interest in viewing it with a population centric lens, in the highest general population levels and industries with the highest number of workforce members in specific locations.
- Ms. Sanchez Cornejo asked about coordination with FEMA and Ryan Abra outlined the history the California Earthquake Early Warning Program with the Alliance of Telecommunications Industry Solutions for the past two years and Integrated Public Alerts and Warning System (IPAWS), a division of the Federal Emergency Management Association (FEMA), to bring warnings to the public.
- Ms. Sanchez Cornejo recommended experts from the wireless industry to present to the Advisory Board on interim solutions before the final plan is developed.

III. Finance and Investment

- Matt Newman, of Blue Sky Consulting, outlined the presentation, which included a discussion of the general budget for the needed funding to complete the systems, proposals for future funding efforts, the timeline for the future, and risk assessment of future hurtles. He also outlined a plan to collect and incorporate Board feedback into the business plan.
- Katrina Connolly, of Blue Sky Consulting, then discussed initial budget elements and estimates by outlining the initial capital expenditures as well as outreach and education estimates based on other statewide campaigns.
- Ms. Sanchez Cornejo asked about outreach efforts that are underway before the report is completed and Ms. Connolly outlined the stakeholders contacted during

the development process. Director Ghilarducci added that Cal OES has a full plan for outreach that is currently underway.

- Ms. von Koch-Liebert asked if the report would include calculations for the ranges of fluctuation in future budget projections. Ms. Connolly responded that Blue Sky Consulting and Cal OES intend to convey final projections in the format of a range.
- Director Ghilarducci clarified that we need roughly $36 million in startup costs and roughly $20 million ongoing with elements fluctuating due to advances in technology. Ms. Connelly commented that recommended funding mechanism could be adjusted as funding needs change.
- Mr. Kennedy and Mr. Anderson both inquired about whether a cost benefit analysis would be included in the business plan. Mr. Newman responded that it was not within the scope of the business plan but Director Ghilarducci discussed the Pacific Earthquake Engineering Research Center Benefit Study and its focus on a variety of industries. He offered to ensure all the Board members receive a fresh copy. He mentioned that it might be prudent to reexamine the benefits now before a final plan is implemented.
- Mr. Newman stated that government accountability would be most closely tied to a commitment to milestones and following through on those milestones. Currently the business plan is most likely to recommend a revenue source with a nexus to the end user in a very small tax or fee on cellphones.
- Ms. Lui asked about how other states or countries fund the signal. Ms. Connolly responded that there are no other states currently funding EEW, but Japan operates on a subscription model. Ms. Connolly also requested Richard Allen, Director of the Berkeley Seismological Laboratory, to comment about Mexico's funding source. Dr. Allen commented that Mexico is a publically funded system that spans multiple states.
- Ms. Sanchez Cornejo asked about other funding sources explored. Mr. Newman outlined other sources analyzed including a surcharge on income tax returns, other charges on utilities bills, and transportation services.
- Ms. von Koch-Liebert highlighted that this approach could be viewed as a regressive tax. She also suggested examining a funding structure that focused a larger portion of the cost on industries that might benefit due to scale and workforce and leave a smaller cost to be distributed among individual members of the general public.
- Ms. Dougherty asked if all the options and policy considerations examined will be outlined in the report. Mr. Newman responded that all options would be included in the full report.
- Mr. Anderson asked about the general cost structures in other countries. Mr. Newman outlined the difference in the systems and how they, along with labor, can cause a large variability in costs of systems internationally.
- Ms. Lui summarized that a lot of the Board members' questions spurred from a greater interest in an outline of the basic assumptions used in crafting the business plan.

- Mr. Newman stated that the capital and ongoing cost estimates calculated during the business plan development process are very similar to those developed by the system operators using a very different methodology, and the corroborated values built confidence in the estimates.
- Mr. Newman provided a review of the risks associated with the system and outlined factors that need to be guided by the Board like the balance of false alarms and not warning the public when a tool is available.
- Mr. Anderson expressed his interest in moving the system forward at the risk of possible false alarm and added annual testing could also serve as an educational component.
- There was a discussion about the current implementation timeline. Mr. Newman explained that general public alerts on cell phones are likely one to three years away, but the limited rollout currently being discussed by technical users is December 2018. Director Ghilarducci explained that Cal OES continues to explore ways to speed up the timeline towards full public rollout.
- Ms. von Koch-Liebert suggested utilizing a form of beta testing to minimize false alarms.
- Mr. Newman wrapped up the presentation by identifying the need to define roles and responsibilities moving forward between Cal OES and USGS.
- Director Ghilarducci wanted to confirm that the Board will review a draft of the business plan before the February deadline. Matt confirmed a draft of the report would be available for pubic review in January and a meeting in December if necessary. The Board would like to consider all of the possibilities.
- There was agreement that a draft of the business plan could be available for review in January, ahead of the February due date to the legislature.
- Ms. Sanchez Cornejo and Ms. Dougherty both reiterated the importance of the Board having the opportunity to review all the funding options and factors considered in advance of the final draft being presented to the Legislature.
- Ms. von Koch-Liebert expressed concerns in utilizing a bond for funding because of debt servicing and possible political implication.

IV. Amend the Agenda and put the other agenda items off to an upcoming meeting

V. Approve Minutes

- Mr. Anderson provided the motion to approve the minutes.
- Minutes Approved with Lupita abstaining due to her recent appointment and not being present at the first meeting.

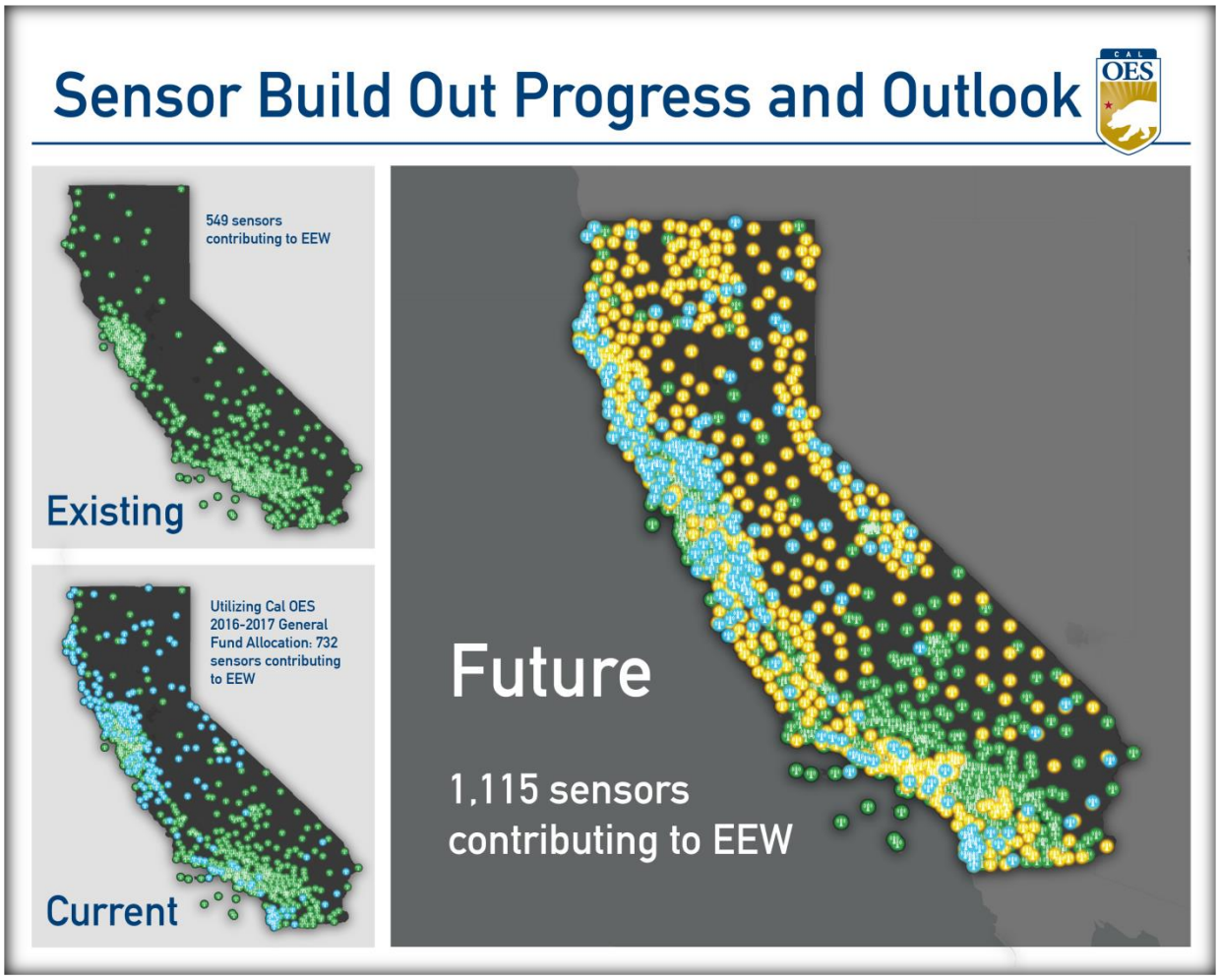
VI. Public Comments

- Patrick Welch, Legislative Aide to Senator Jerry Hill, expressed Senator Hill interest in working with his colleagues and Cal OES on at least one-time funding to support these efforts within this year's budget process.
- Dr. Richard Allen, Director of the Berkeley Seismological Laboratory, reflected on a recent trip to Mexico City following the most recent earthquake. There were false alarms among the five times the sensors went off in September but researchers were surprised how accepting the public was of false alarms, in

fact the public generally viewed false alarms as training opportunities. The research group focused on non-automated actions during the trip.

- Dr. Lind Gee, USGS, spoke about the large numbers of pilot users already in place and informed the Board of a Transportation Sector Symposium simultaneously occulting in Southern California. She additionally, explained efforts to understand the potential uses of a cell phone application being scaled up to allow a larger number of users.

VII. Adjourn


Sensor Build Out Progress and Outlook
549 sensors contributing to EEW
Existing
Utilizing Cal OES 2016-2017 General Fund Allocation: 732 sensors contributing to EEW
Current
Future
1,115 sensors contributing to EEW

BUSINESS PLAN PRESENTATION

Blue Sky CONSULTING GROUP

Business Plan Report

Presented to the California Earthquake Early Warning Advisory Board

April 30, 2018

Presented by
Matthew Newman and Katrina Connolly

Overview

- Business plan overview
- Key strategic issues
- Discussion

Introduction

- Working together, Cal OES and the Blue Sky Consulting Group have completed the business plan for the California Early Earthquake Warning Program
- The business plan outlines the steps toward fully realizing an EEW system in California

Business Plan Overview: Much Has Been Done

- Earthquake early warning is a key component of earthquake preparedness and public safety in California
- Much has been done to bring EEW online
  - Nearly three fourths of the needed sensors are installed or funded, including stations funded with more than $6 million in state General Fund resources from 2016-17; the remaining sensors are expected to be funded by the Governor's proposal for $15.75 million in FY 2018-19
  - A working version of the alert algorithm has been developed and deployed
  - Pilot users are currently receiving the signal and utilizing it in their business operations
  - Discussions are underway with cell phone handset makers and telecommunications companies to provide an alert on individual cell phones
  - Plans for improving system telemetry are underway, including use of the state microwave system to transmit the station data

Business Plan Overview: Tasks Remain

- While much work has been done, challenges remain
  - Additional capital investments are needed to fully develop the system
  - The telemetry plan will need to be refined in order to more clearly identify costs based on the location of seismic stations and other factors
  - More R&D is required to refine the computer algorithm that translates seismic and GPS data into a warning of an impending earthquake
  - An extensive public outreach and education campaign will be needed to inform Californians about how to react in the event of an early warning
  - A financing plan will need to be implemented in order to provide an ongoing, stable funding source for EEW in California.
  - The various organizations involved in running the system will need to strengthen their partnership and more clearly specify roles and responsibilities in order to ensure effective governance of the system going forward

Additional Investments

- In order to complete the EEW system, additional investments are required for:
  - 283 seismic stations (expected to be funded by $15.75 million in state General Funds in FY 2018-19)
  - 294 GPS stations
  - Telemetry improvements
  - Outreach and education

ESTIMATE OF UNFUNDED CAPITAL AND ONE-TIME COSTS FOR CALIFORNIA EEW

CEEWS Component	Capital/One-Time Costs *(Millions)*
Seismic stations	$16.
GPS stations	$3.8
Backbone telemetry	$5.9
Outreach and education	$6.9
Subtotal	*$32.6*
Contingencies	$4.9
Subtotal	*$37.5*
Potential State General Fund	($15.75)
FY2018 Federal Fund	($5.5)
TOTAL	***$16.3***

CEEWP Ongoing Costs

- Station maintenance
  - Personnel, permit fees/renewal, travel, supplies & equipment
- Central site operations
  - Personnel & equipment
- Telemetry
  - Data transmission costs
- Outreach and education
  - Cal OES staff to develop and manage outreach strategy and materials
  - Technical user support (e.g., regional hands-on team, Help Desk, online support)
  - Ongoing research and media buys for public campaign
- Research and Development
  - Cal OES costs to develop improved ways to deliver the signal to users
- Program Management
  - Cal OES staff to manage CEEWP

Characteristics of a Successful Financing Strategy

- Capable of generating approximately $16.4 million per year
- Grows over time as program costs increase
- Establishes a nexus between costs and beneficiaries of the system
- Is inexpensive and efficient to collect
- Provides a dedicated, stable source of funding

Financing Options

Option	Pros	Cons
Electric Utility Users Charge	Provides a dedicated, stable revenue source. Can be added to existing bills with little administration cost.	Could incur (minor) additional administration costs if other users (e.g., gas customers) are also charged. Potential opposition from utilities.
Natural Gas Users Charge	Provides a dedicated, stable revenue source. Can be added to existing bills with little administration cost.	Could incur (minor) additional administration costs if other users (e.g., electricity customers) are charged. Potential opposition from utilities.
Transportation Providers Charge	Provides a dedicated, stable revenue source. Can be charged to regulated transportation providers (and likely passed on to riders of regional transit systems, Caltrain and High Speed Rail) with little administration cost.	Could incur (minor) additional administration costs if other users (e.g., electricity customers) are charged. Potential opposition from transportation providers.
Cell Phone Connection Charge	Clear nexus between payers and beneficiaries. Can be added to existing bills with little administration cost. Provides a dedicated, stable revenue source.	Potential opposition from cell carriers.
Income Tax Surcharge	Provides a dedicated, stable revenue source. Administration costs would be relatively low if charge added to existing tax returns.	Limited nexus between payers and beneficiaries.
Charge on EEW technology and service providers	Establishes a nexus between benefits and (certain) beneficiaries of the system. Avoids the need to increase taxes/charges paid directly by individual Californians.	Revenues could fluctuate based on number and type of technology and service providers.
Foundation and federal grants	Avoids the need to increase taxes/charges imposed on Californians.	Does not provide a stable, dedicated revenue source.
Charge on industries that benefit from EEW	Avoids the need to increase taxes/charges imposed on Californians.	Would require multiple, new and costly revenue collection mechanisms.
State General Fund	Establishes a nexus with users and beneficiaries to the extent entire state benefits from EEW. No new revenue collection costs.	Would require annual appropriations and so may not provide a stable, dedicated revenue source.

Financing One-time and Capital Costs

- Approximately $16 million in EEW one-time costs remain (assuming Legislature approves Governor's proposal for an additional $15.75 million for EEW in FY 2018-19)
- These costs could be financed on a pay-as-you-go basis as long as a dedicated ongoing revenue stream for EEW is implemented
- To the extent necessary, a revenue bond is an alternative approach for financing one-time costs

UTILIZING SURPLUS O&M FUNDS FOR ONE-TIME COSTS

		2019		2020		2021		2022	
Cost Category	Annual Budget	Percent Not Needed	Funds Available	Percent Not Needed	Funds Available	Percent Not Needed	Funds Available	Percent Not Needed	Funds Available
Seismic stations	$3.8	35%	$1.3	10%	$.4	0%	$.	0%	$0
GPS stations	$2.3	80%	$1.8	50%	$1.1	25%	$.6	0%	$0
Backbone telemetry	$2.9	85%	$2.5	50%	$1.4	40%	$1.2	25%	$.7
Outreach and education	$3.5	58%	$2.	0%	$.	0%	$0	0%	$0
Research & Development	$.3	0%	$0	0%	$0	0%	$0	0%	$0
Program management	$.4	0%	$0	0%	$0	0%	$0	0%	$0
Contingency for O&M	$3.2	50%	$1.6	25%	$.8	25%	$.8	0%	$.
Annual Total	*$16.4*		*$9.2*		*$3.8*		*$2.5*		*$.7*
Cumulative Total Available			***$9.2***		***$13.***		***$15.5***		***$16.3***

State Contributions

- During the past several years, the state's interest in further and more rapid development of the system has increased
  - Development of this business plan
  - State General Fund contribution of $10 million in 2016-17
  - A second proposed contribution of $15.75 million in the 2018-19 Governor's Budget
  - Development of a more reliable mechanism for distributing the earthquake early warning message through unused television broadcast spectrum (known as datacasting)
  - Favorable pricing and cooperation with respect to use of the state microwave network

Lack of Clear Agreement on Roles and Responsibilities

- The Implementation Framework (jointly developed by Cal OES, USGS and the university partners) provides an outline for the management of the EEW program
- However, there is no formal agreement between the various parties to the system that clearly defines roles and responsibilities
- This can hinder effective management of the program
  - There is no clear consensus as to which entity, the USGS or Cal OES, has responsibility for communicating with the public around earthquake early warning
  - There no is clear mechanism for determining who will decide when and how to launch the system to the public

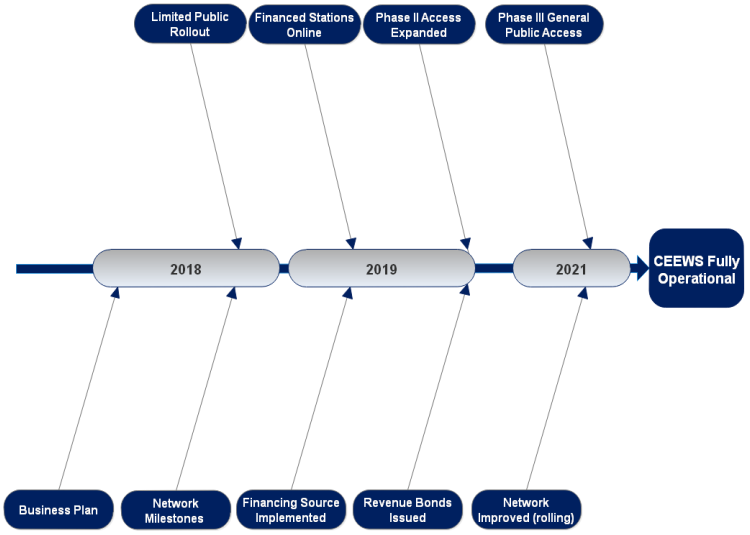
Recommendation with Respect to Program Management

- Cal OES and the USGS should complete negotiations on a memorandum of understanding (MOU) that clearly delineates the roles and responsibilities of each entity
- Such a negotiated agreement should be in place prior to approval by Cal OES to expend future funds from a dedicated EEW funding source
- One logical division of labor:
  - USGS is responsible for the scientific aspects of the system: collecting and processing seismic data, developing the alert algorithm, and determining whether it is scientifically appropriate to issue an alert based on the available data
  - Cal OES takes responsibility for distributing the signal, assisting users in obtaining access to the signal, and communicating with and educating the public about earthquake early warning

Other Roles and Responsibilities

- Beyond Cal OES, USGS and the university partners, other public and private sector entities have a role to play
- Cell phone companies are developing the technology to rapidly deliver the alert to cell phone devices
- Transportation providers such as BART are investing resources into developing an automated mechanism to slow trains in response to an alert
- School districts are expected to finance augmentations to PA systems in order to use the signal to alert students and teachers in classrooms
- Third party vendors are developing technical assistance services, such as automating school PA systems or helping companies with sensitive machinery develop an automated response to the alert
- Local departments of emergency management will also play important roles in implementing earthquake early warning

Timeline



Limited Public Rollout

- The contours of the limited public rollout comprise a critical element of the EEW business plan
- The rollout represents an important opportunity to
  - provide public benefits
  - generate increased awareness
- All parties agree that a public rollout is appropriate by the end of 2018
- However, there does not appear to be consensus with respect to what, specifically, that rollout should consist of

Limited Public Rollout, cont.

- The question for EEW managers: how broadly to roll out the system?
- There are sound arguments for making the EEW signal available to a select group of users and carefully monitoring their use in order to improve the subsequent rollout to a broader group
  - Moving too quickly could undermine public confidence in system due to false, delayed or missed alerts
  - Users might respond inappropriately to signal, causing injury or harm
  - Limited participation could undermine support for system
  - (Low quality) third party applications could result in limited user confidence in system

Limited Public Rollout, cont.

- On the other hand, moving more quickly
  - Provides Californians with the public protection benefits of the system as soon as possible
  - Minimizes possibility of erosion in political will for funding caused by increased delays
  - Takes maximum advantage of the publicity surrounding the rollout to inform users
  - Avoids conflicts where users learn of system through rollout but are denied access
  - Is consistent with the goals of the legislature and Cal OES leadership to implement the system as soon as practically possible

Limited Public Rollout Recommendations

- Roll out the system no later than December 31, 2018
- Accompany the rollout with as many public statements, media interviews, and other publicity as can be generated
- Allow any institutional user who wishes it to access the signal as long as that user agrees to the terms of an end user licensing agreement (EULA)
- Terms of the EULA would specify that (a) the user had been informed of the limitations of the system and (b) the user would use the signal only to alert properly trained workers or control machinery
- Prepare for the public roll out by developing capacity to inform and assist users that will participate

Risk Assessment

Risk	Mitigation Strategy
False/missed/delayed alerts dilute confidence in system or interrupt costly machine processes and services	Clearly inform users of system limitations and continue to support USGS in refining system performance
Large earthquake occurs, but signal has not been made available	Aggressively pursue business plan timeline
Slow pace of expanding access to alert undermines political will for funding	Plan and meet benchmarks for expanding access
Funding based on estimate proves to be inadequate to support California EEW	Work to cut costs and find additional funding sources
Lack of participation due to lack of user willingness to invest in EEW	Increase outreach, education, and publicity
People do not respond to alert	Refine and enhance outreach and education

Risk Assessment Continued

Risk	Mitigation Strategy
Middlemen reduce data quality and dilute confidence in system	Enforce contractual terms to prevent misuse
Strong interest in accessing signal from ineligible users during limited public rollout phase	Work with USGS to expand signal access to excluded groups
User demand exceeds administrative capacity resulting in difficulty accessing and using signal	Develop plan to expand access in response to strong demand; invest in technical support and help desk resources
Cyber security fails to protect CEEWS from cyber threat	Invest in ongoing security upgrades
Technology for real time cell phone alerts is delayed	Work with providers to accelerate timeline; adjust public awareness campaign timing as needed
CEQA permitting process stalls progress	Continue to work on global CEQA solution

Benefits and Costs of EEW

- Before investing, it is important to ask, does the expected benefit exceed the likely costs?
- The short answer to this question is an unambiguous "yes“
- A report prepared by Pacific Earthquake Engineering Research Center for Cal OES in 2016 concluded that surveyed organizations “unanimously perceived the overall societal benefits from having a statewide EEWS as very high”

Benefits and Costs of EEW, Continued

- UCB study by Strauss and Allen identified benefits to hospitals and schools, passengers in elevators or on trains, manufacturers and workers working with hazardous materials
- If people received adequate warning and took appropriate action, the estimated $2 billion to $3 billion in injury related costs stemming from the Northridge earthquake could be reduced by $1 billion to $1.5 in a future similar quake
- Even avoiding just one percent of the injuries from a Northridge-like earthquake would potentially save $20 million to $30 million (more than enough to pay the $16 million annual operations and maintenance costs of the EEW system)
- A single ten-car BART train costs more than $33 million, so preventing one derailment would easily save more than the annual program costs

Conclusion and Recommendations

- Cal OES and USGS should finalize a formal memorandum of understanding which clearly delineates the roles and responsibilities of each entity with respect to implementing EEW in California
- The limited public rollout of the system scheduled for December 2018 should proceed with access granted to the widest possible group of institutional users
- The Legislature should approve a stable, ongoing source of funding for the California EEW, effective January 1, 2019