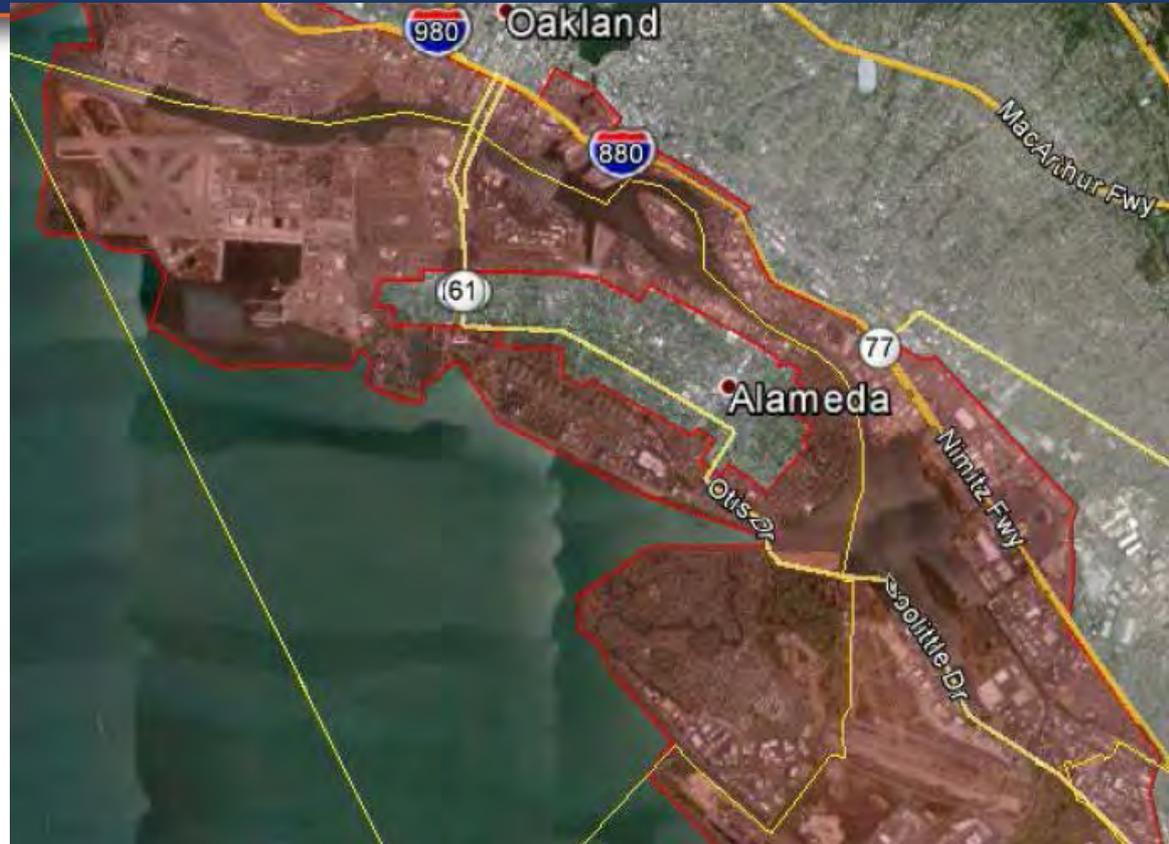


Discuss Tsunami Awareness



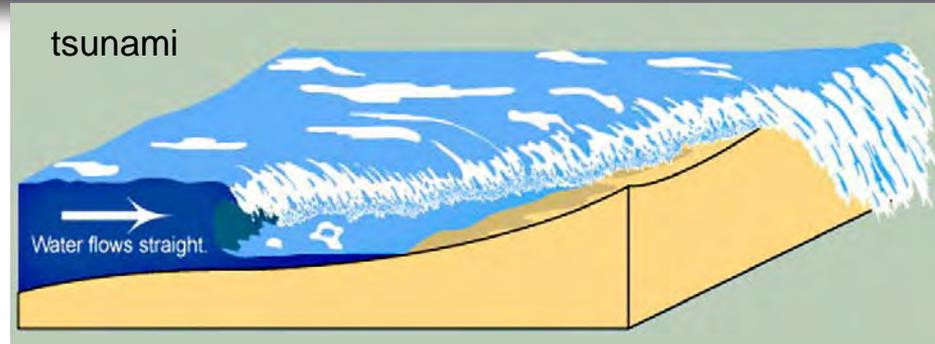
Background

- Low probability of impacting Alameda
- High risk of significant damage



Tsunami Description

- Caused by earthquakes, landslides, volcanic eruptions or meteors
- Rapid changes in water
- Magnified in marinas
- Can inundate bay communities
- Can last 24 hours or more
- First surge may not be the largest



Tsunami Description (cont.)



Tsunamis in California

- 100 tsunamis since 1800
- 13 caused damage
- 5 caused human casualties
- 1964 tsunami from Alaska M9.2 killed 13 in CA
- 2011 tsunami from Japan resulted in 1 death in CA



1960 – Crescent City



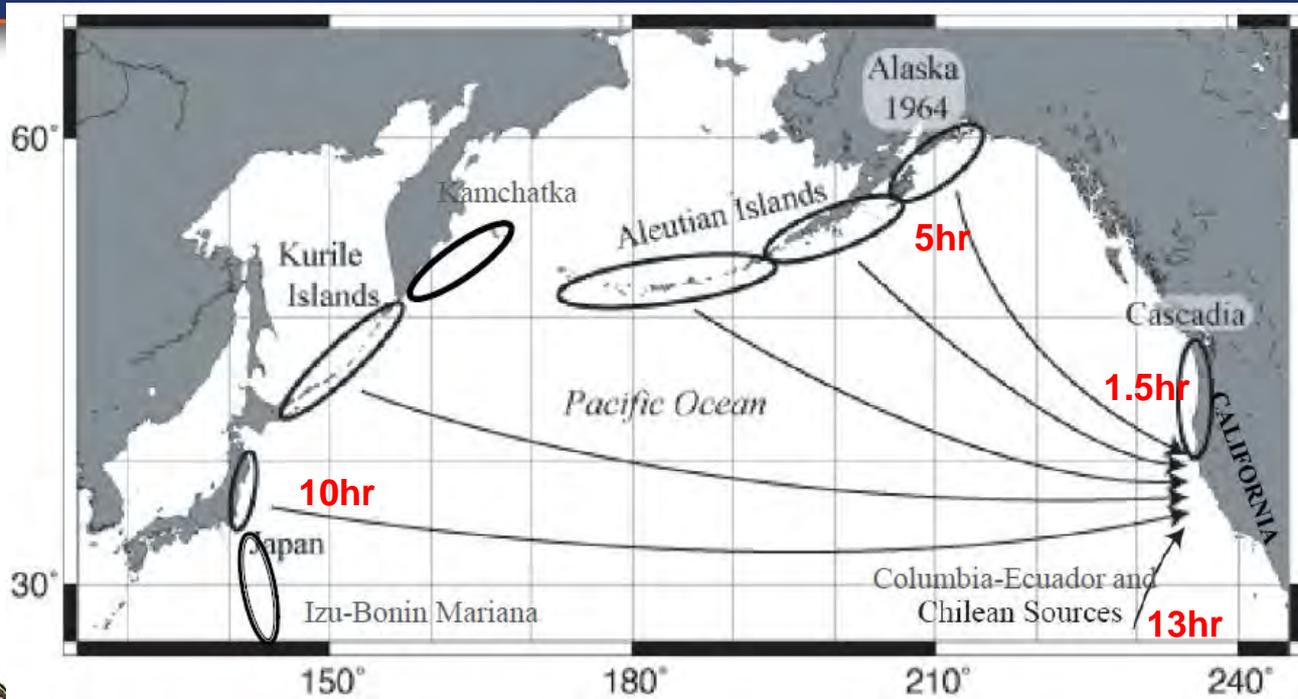
2011 – Santa Cruz



Tsunamis in CA: 2011 Santa Cruz



Tsunami Travel Time to Alameda



Tsunami Simulation in Alameda

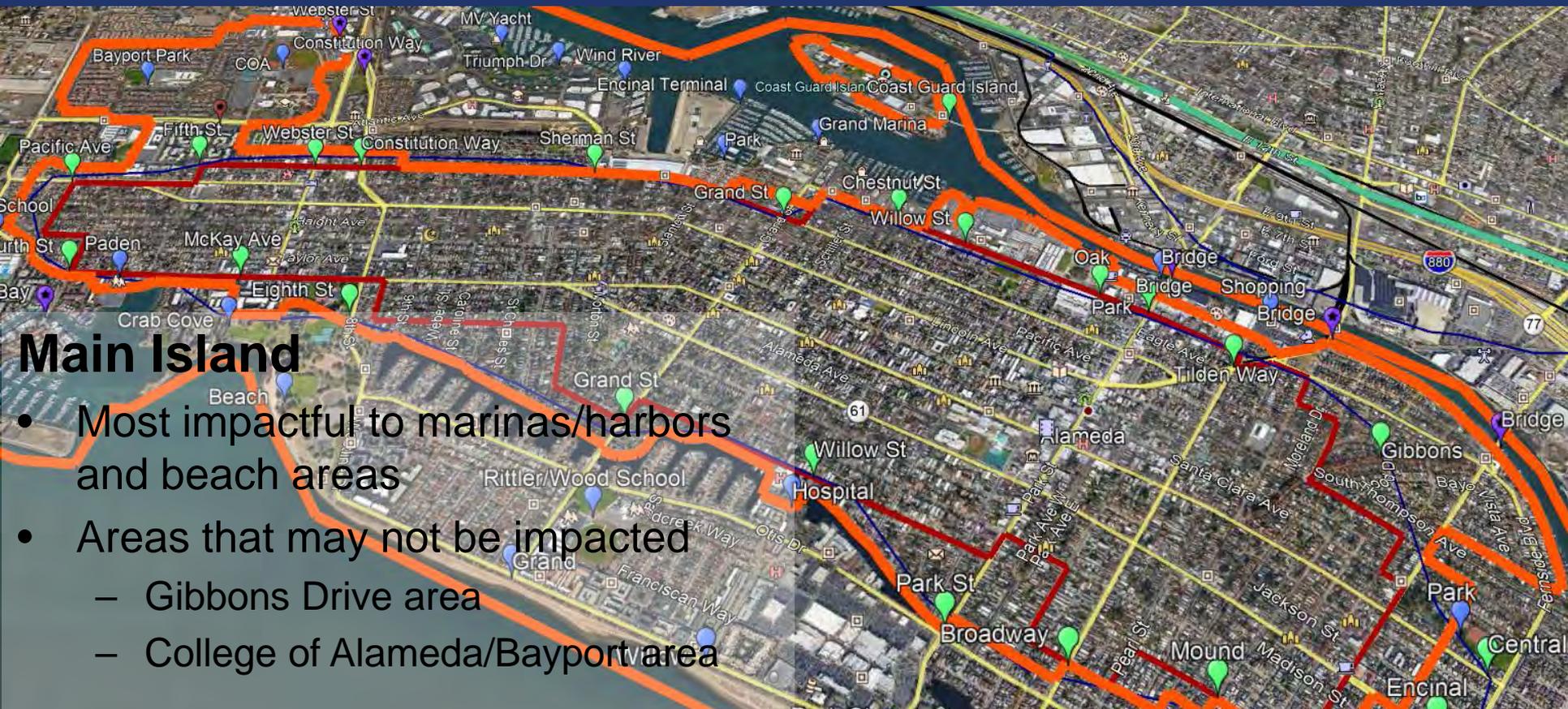


Alameda: Maximum Inundation

- Maximum: 18 ft elevation
- Central Avenue is highest point
- Walk/bike to center of island
- Drive/bus/bike to beyond I-880



Alameda: Partial Inundation



Main Island

- Most impactful to marinas/harbors and beach areas
- Areas that may not be impacted
 - Gibbons Drive area
 - College of Alameda/Bayport area

Alameda: Partial Inundation (cont.)

- Bay Farm
 - Bay Farm School area = highest point on Bay Farm
 - Evacuation via car, bus, bike or walk
 - Contraflow on Doolittle towards Oakland expected



Alameda: Key Messages

- Worst: Aleutian Islands earthquake: 5 hrs to evacuate
- Evacuating by car: more likely to put self/others at risk
- Vertical evacuation to multi-story stable structures is option if not safe to evacuate
- Prepare a go-kit and talk to agent about flood insurance



Alameda: Key Messages (cont.)

- Notifications to come from:
 - Alameda County Office of Emergency Services
 - AC Alert to subscribers
 - Reverse 911
 - Broadcast TV & Radio
 - Wireless emergency alerts
 - text-like messages
 - mobile devices in the alert zone



Boating: Key Messages

- Not recommended to evacuate in boat offshore
- Safer to keep boat docked
- Difficult to:
 - Reach offshore safe depth in water at 30-fathoms (180 ft)
 - Navigate
 - Have supplies for 24 hrs or more
- Risk to harbor personnel if need to assist people in boats



Alameda: Next Steps

- Installing tsunami signs
- Ongoing outreach/planning
- Tsunami Ready Community designation by the National Weather Service
 - Mitigation, Preparedness and Response steps



Alameda Next Steps: Signs

Sign Type	Total
Entering / Leaving (at maximum inundation)	48
Entering	24
Leaving	24
Go to High Ground / Inland (at waterfront paths)	40
Tsunami Hazard Zone (at City gateways)	10
Total	98



Tsunami Information

- U.S. Tsunami Warning System: tsunami.gov
- AC Alert – Subscribe to receive alerts: ACAlert.org
- City Alerts: alamedaca.gov/alerts
- City Preparedness: alamedaca.gov/prepare



Source: Santa Cruz harbor,
Mercury News

