

Name: _____ Date: _____

Earthquake and Tsunami

Tsunami Evacuation

1. Look at the Tsunami Evacuation Area map on page 15 of your *Living on Shaky Ground* magazine. What do the green areas mean? What do the yellow areas mean?
2. Think about where you live, where you go to school, and local places that you regularly visit. Use the Tsunami Evacuation Area map on page 15 to determine if any of these locations are within a tsunami zone. If so, look for safe zones where could you quickly and safely evacuate to by foot. Fill in the table below.

Location	In a tsunami zone?	Closest safe zone(s)
Home		
School		

3. You are at the Arcata Marsh and feel a strong earthquake! You should evacuate towards higher ground. Draw your route to safety on Map A. Use the map scale to calculate the distance of your evacuation route in miles.
4. You are at the Bayshore Mall in Eureka and feel a strong earthquake! You should evacuate towards higher ground. Draw your route to safety on Map B. Use the map scale to calculate the distance of your evacuation route in miles.

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QR code for CA Tsunami
Hazard Area map

An online Tsunami Hazard Area map of California is provided by the California Geological Survey Tsunami Web App and displays the tsunami hazard zones of California. This source is linked at the top of the Tsunami Hazard Maps webpage, which is available through the QR code provided here and on page 15 of *Living on Shaky Ground*. Explore the state's tsunami zones by scrolling through the map or typing specific locations into the search bar!

1. Spend some time exploring the tsunami hazard zones of California and become familiar with the program. Try using the search bar to explore locations you visit or have always wanted to visit across coastal California. Some locations could include the Monterey Bay Aquarium, Santa Monica Pier, Mendocino, Catalina Island, or San Diego. Was anything surprising to you?
2. Use the search bar to locate the Oakland International Airport. Is this in a tsunami zone?

Now locate the San Francisco International Airport. Is this in a tsunami zone?

Why might these two San Francisco Bay airports have the same or different tsunami hazard zone status? What might make one more vulnerable to a tsunami than the other?

Map A



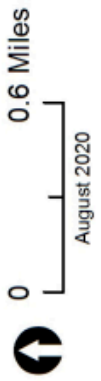
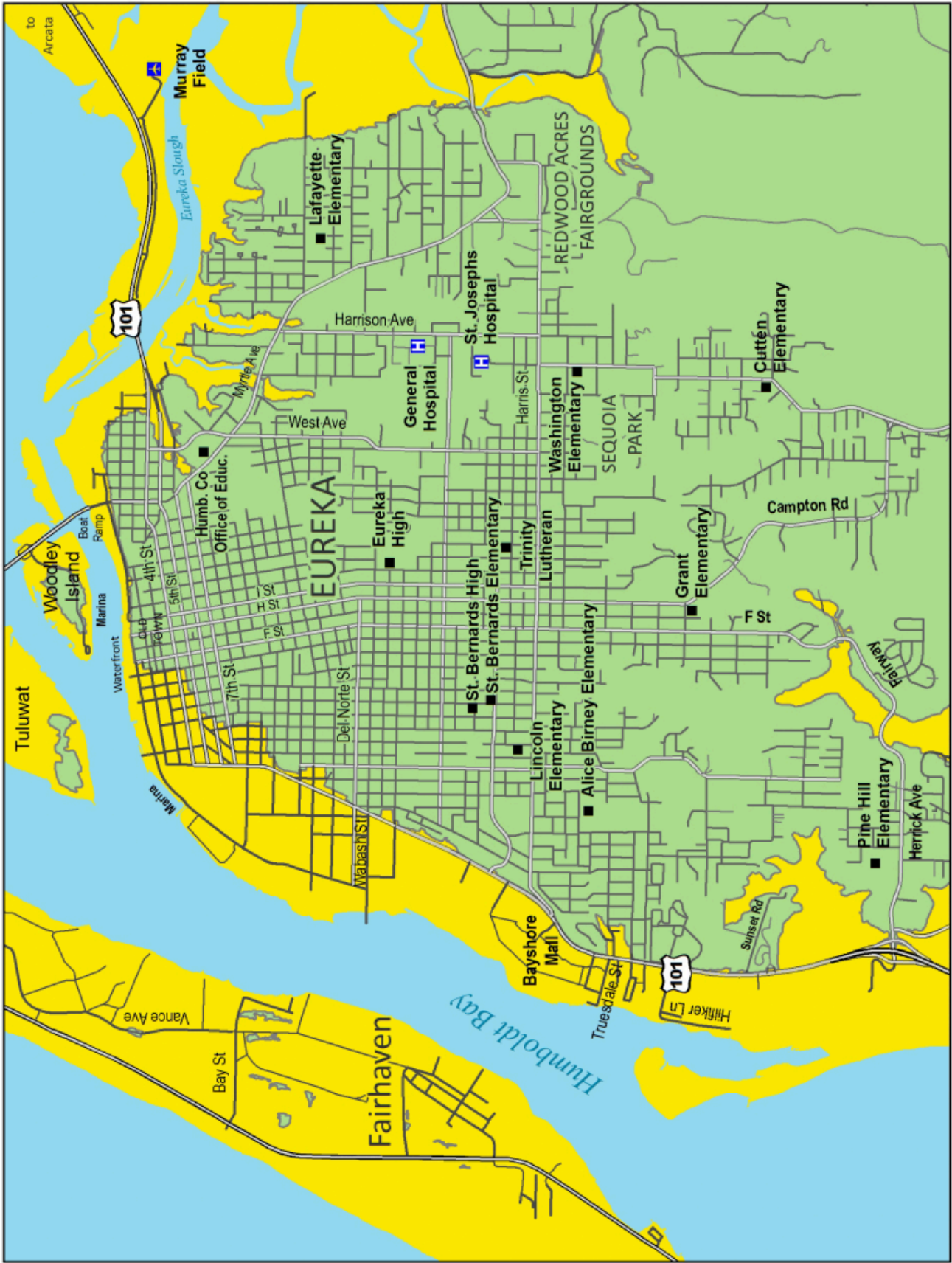
Tsunami Zone
If you feel an earthquake, go to safe area

Safe Area

0 1 Miles
August 2020

ARCATA
Tsunami Hazard Map

Map B



Tsunami Zone

Safe Area

If you feel an earthquake, go to safe area

EUREKA
Tsunami Hazard Map

Instructor's Notes

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Tsunami Evacuation

Tsunami Evacuation: A tsunami evacuation involves moving yourself from a tsunami hazard zone at a lower elevation (colored yellow on the hazard maps) to a safe zone at a higher elevation (colored green on the hazard maps). Your natural warning is the earthquake shaking. Do not wait for an official notification. You should immediately walk to higher ground or inland, and you avoid coastal areas until officials give an all clear. For more information on tsunami warnings and evacuations, read pages 14 and 15 of the provided *Living on Shaky Ground* magazine.

Lesson Plan:

- The instructor will hand out copies of the provided *Living on Shaky Ground* magazines and the Earthquake and Tsunami: Tsunami Evacuation worksheets.
- The students will work in small groups or individually to complete the worksheet, referencing their copies of *Living on Shaky Ground* to answer the given questions. For #2, have students fill out the “home” section for *all* residences if they have more than one place of residence.
- The class will come together to discuss the worksheet, during which the instructor can provide any needed clarity and assistance. The instructor should draw particular attention to the Tsunami Evacuation Area map on page 15, showing where the school is located and where to evacuate to in case of a tsunami.

Extension:

- The students can explore the Tsunami Hazard Area map of California using the California Geological Survey Tsunami Web App linked at the top of the Tsunami Hazard Maps webpage, which is available through the QR code provided here and on page 15 of *Living on Shaky Ground*. The students can explore the state's tsunami zones by scrolling through the map or can type specific locations into the search bar. The online app is mobile friendly and can also be accessed on a web browser.



QR code for CA Tsunami Hazard Area map