

Oakland General Plan Update 2045

Safety Element
Discussion Group



OAKLAND 2045
GENERAL PLAN

June 30, 2022

Agenda

- Timeline
- Safety Requirements and Background
 - Emergency Preparedness and Response
 - Seismic and Geologic Hazards
 - Flooding and Sea Level Rise
 - Wildfire
 - Humanmade Hazards
 - Climate Change Adaptation and Resilience
 - (for continued discussion on 7/8)
- Discussion
- Close



General Plan Background

Elements required to be updated by early 2023



HOUSING
Adopted 2014



SAFETY
Adopted 2004
(Last amended 2021)

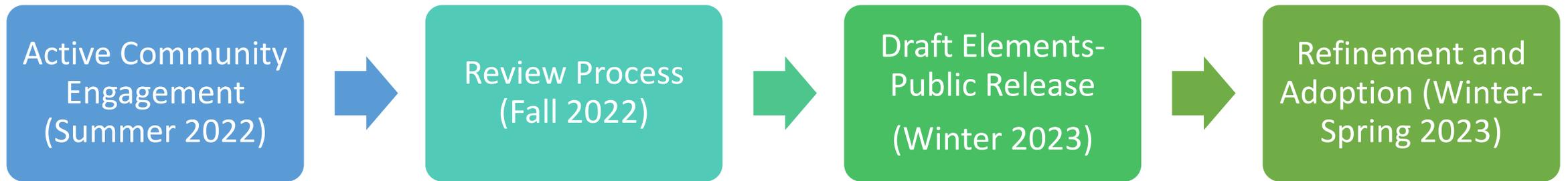


ENVIRONMENTAL JUSTICE
New Requirement
May be stand-alone or integrated



INDUSTRIAL LANDS POLICY
New

Element Development Process



Safety

SB 379 Requirements

- Oakland faces many hazards, including:
 - **Environmental: wildfire, earthquakes/seismic hazards, flooding, extreme weather, climate change**
 - **Humanmade: hazardous materials**
- Certain populations may be more vulnerable to hazards



Infants and youth



People who work outside



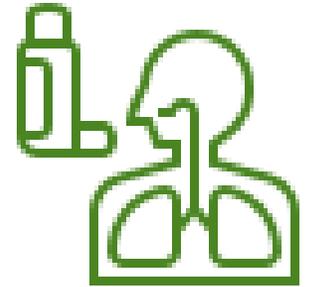
Communities of color



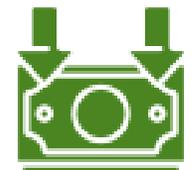
Older populations or mobility impairments



No vehicle/accessible transit



Pre-existing conditions



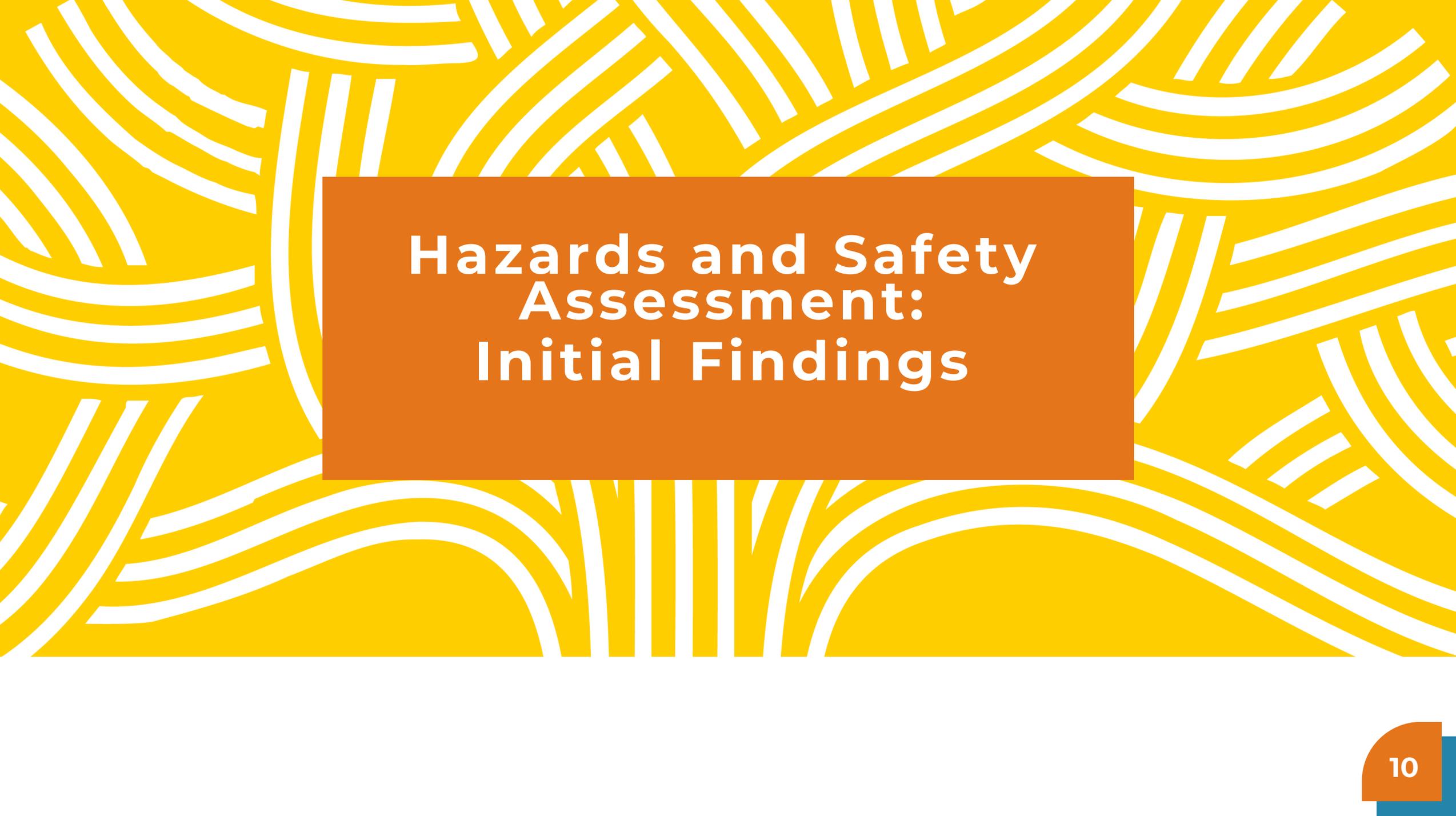
Low-income communities

Requirements

Topics	Requirements
Seismic and Geologic Hazards	<ul style="list-style-type: none">• Slope instability• Policies and mapping related to seismic hazards (surface rupture, ground shaking, ground failure, tsunami, seiche, dam failure, subsidence, liquefaction, etc.)
Emergency Preparedness	<ul style="list-style-type: none">• Evacuation routes• Peakload water supply requirements• Minimum road widths and clearances around structures• Essential public facilities and their location• Cooperative relationships with relevant public agencies
Flooding	<ul style="list-style-type: none">• Mapped flood hazard zones and FEMA maps• Appropriate mitigations for new development in hazard areas
Wildland and Urban Fires	<ul style="list-style-type: none">• Fire Hazard Severity Zone mapping, historical fire data• Avoid and minimize fire risk for new development
Climate Change Adaptation and Resilience (SB 379)	<ul style="list-style-type: none">• Cal-Adapt information- risk of climate change, including assets ,resources, and populations• Set of adaptation and resilience goals, policies and objectives based on results

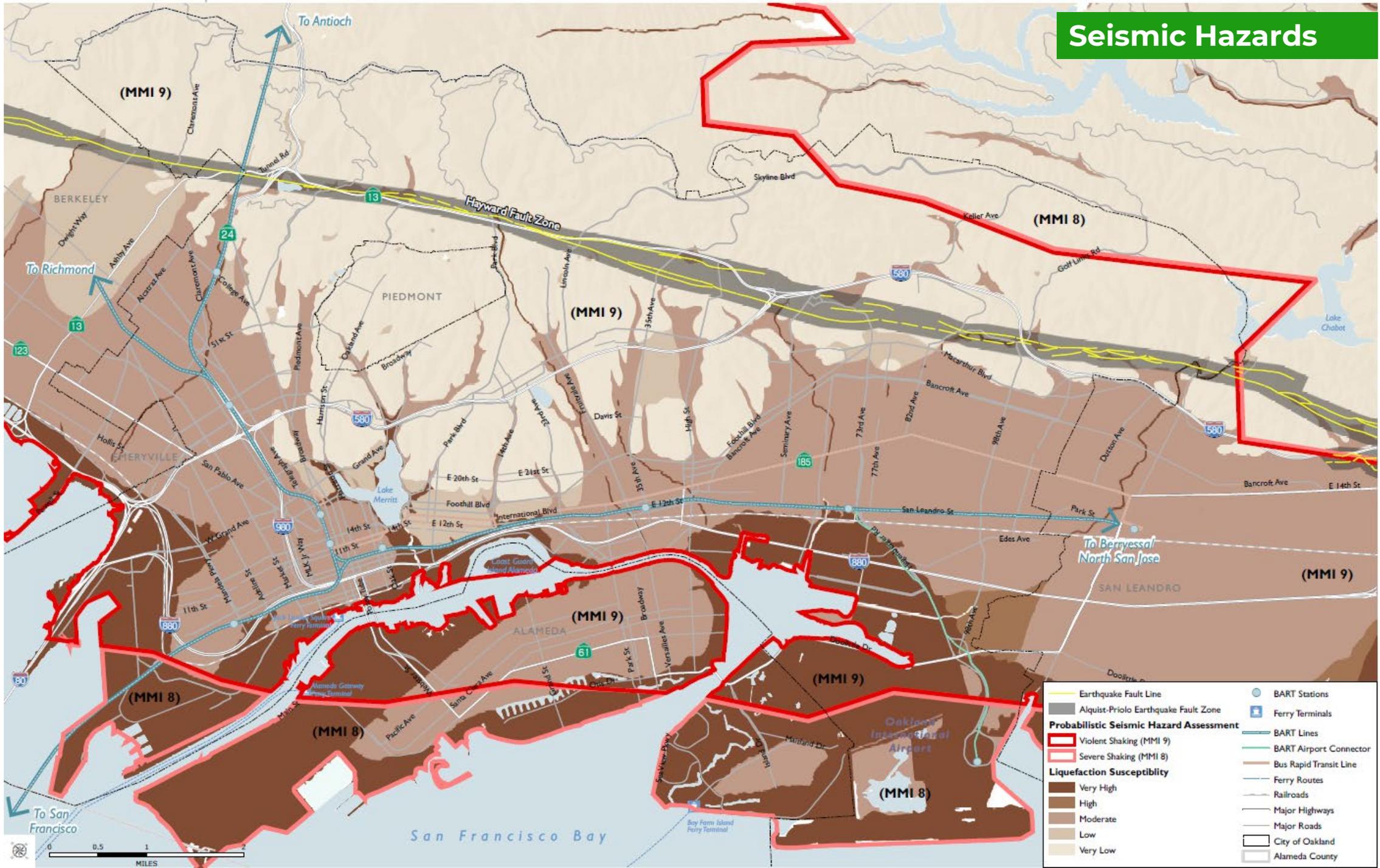
Other Topics

Topics	
Hazardous Materials	<ul style="list-style-type: none">• Materials spills and transport• Cleanup
Public Safety	<p>Crime Prevention through Environmental Design (CPTED)</p> <ul style="list-style-type: none">• Other topics cross-referenced with other elements. For example:<ul style="list-style-type: none">• Collisions and safer streets (EJ and LUTE elements)• Community gathering places (LUTE, OSCAR, EJ)• Interdepartmental/community collaboration to address community safety



Hazards and Safety Assessment: Initial Findings

Seismic Hazards



Legend

- Earthquake Fault Line
- Alquist-Priolo Earthquake Fault Zone
- Probabilistic Seismic Hazard Assessment**
- Violent Shaking (MMI 9)
- Severe Shaking (MMI 8)
- Liquefaction Susceptibility**
- Very High
- High
- Moderate
- Low
- Very Low
- BART Stations
- Ferry Terminals
- BART Lines
- BART Airport Connector
- Bus Rapid Transit Line
- Ferry Routes
- Railroads
- Major Highways
- Major Roads
- City of Oakland
- Alameda County



Seismic Population Impacts

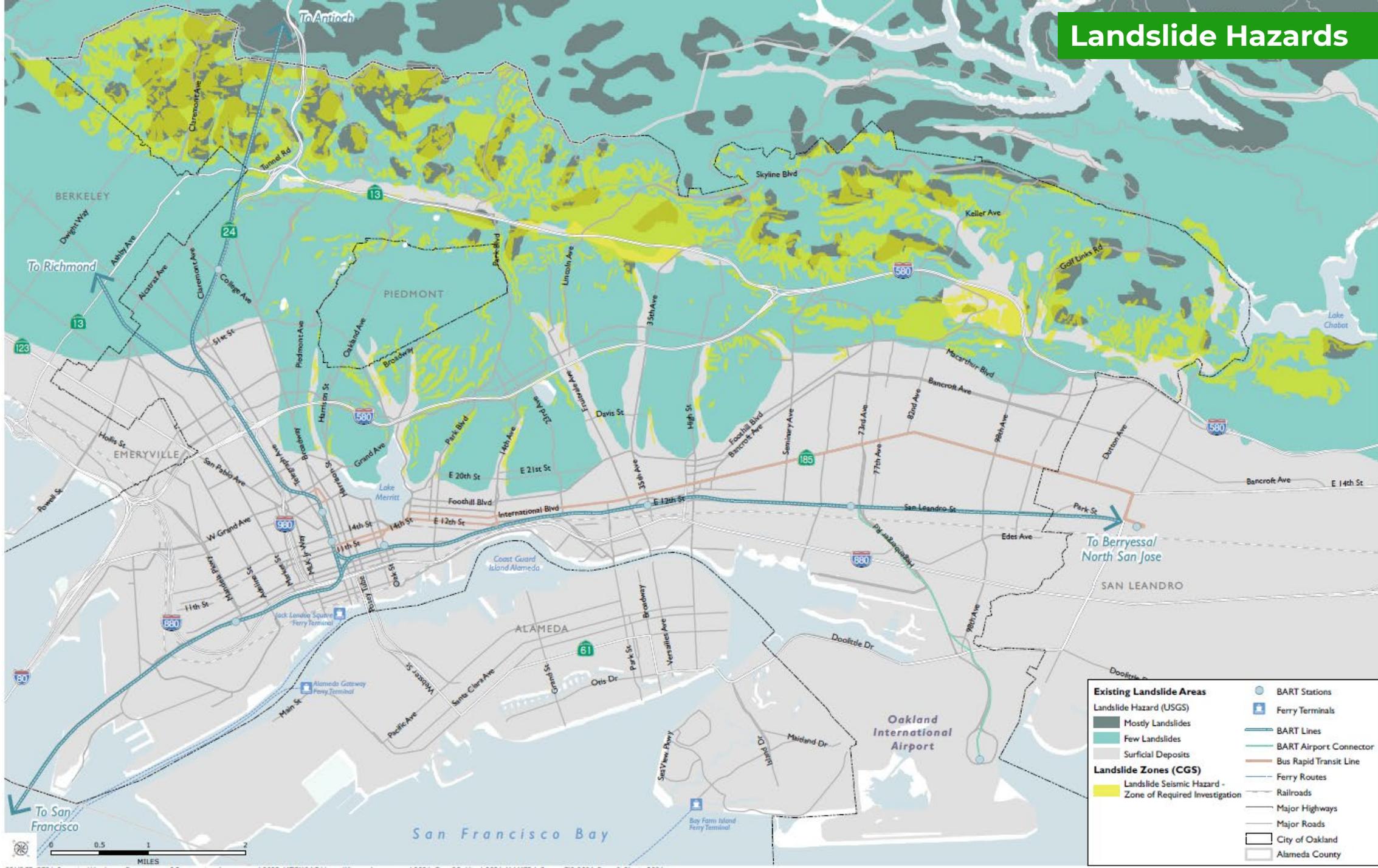
Most of Oakland is at risk for violent shaking.

- Aging housing stock and public infrastructure impact residents in **low-income** areas.
- Soft-story apartment buildings are at risk of structural damage or even collapse from an earthquake; they account for approximately **22,000 housing units** in Oakland.

Liquefaction susceptibility is generally highest in the low-lying coastal areas.

- **Lower-income** areas and **communities of color** predominantly live in census tracts that are more likely to be affected by liquefaction.

Landslide Hazards

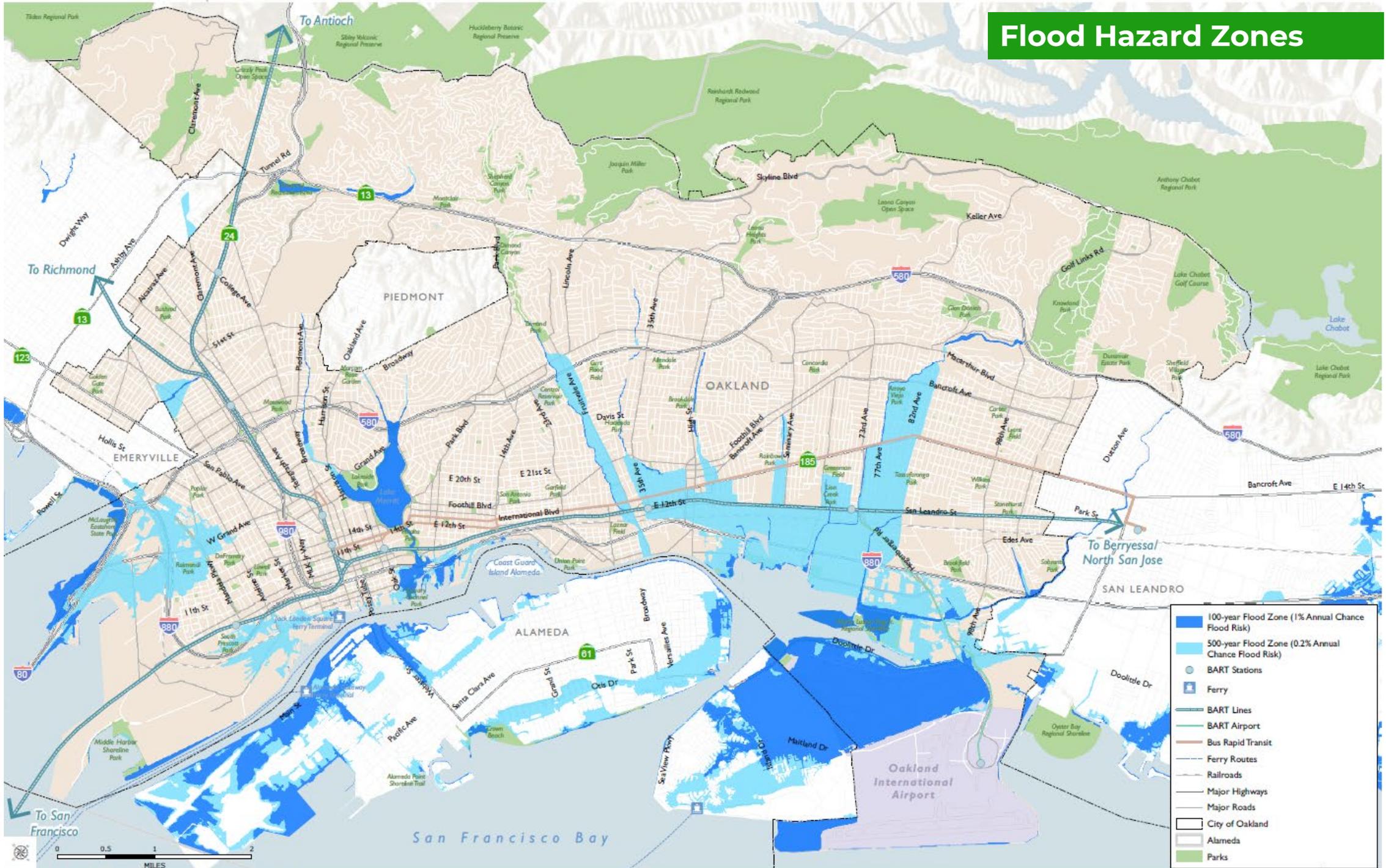


Landslide Population Impacts

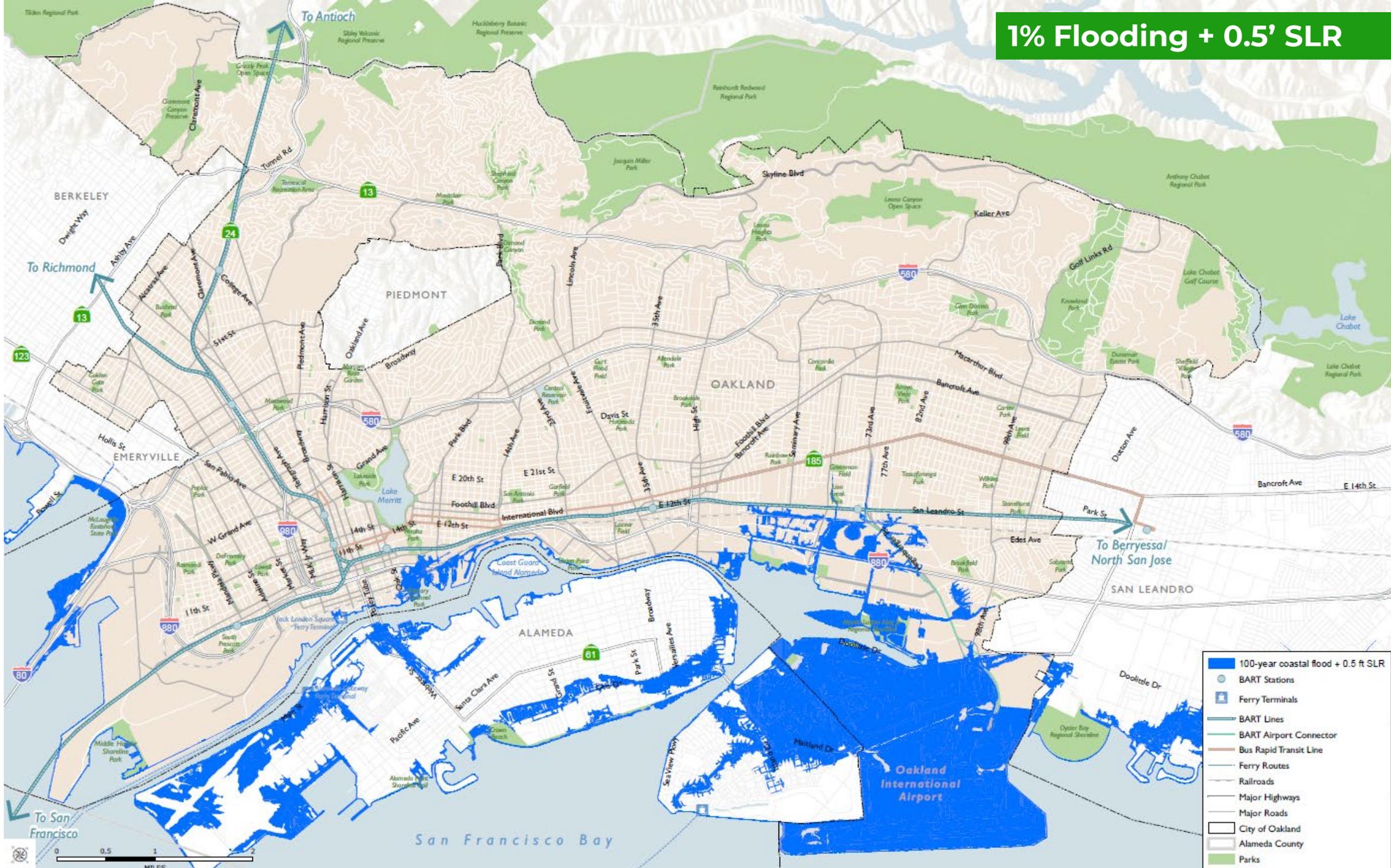
Landslide threats are most likely to impact the Oakland Hills.

- Higher-income and white residents make up the majority of the population in tracts that are more likely to be at risk of landslides and ground shaking.
- Of the total population vulnerable to landslide threats, 40% were households making less than \$50,000 annually, 22% were black, and 18% were Hispanic or Latino.

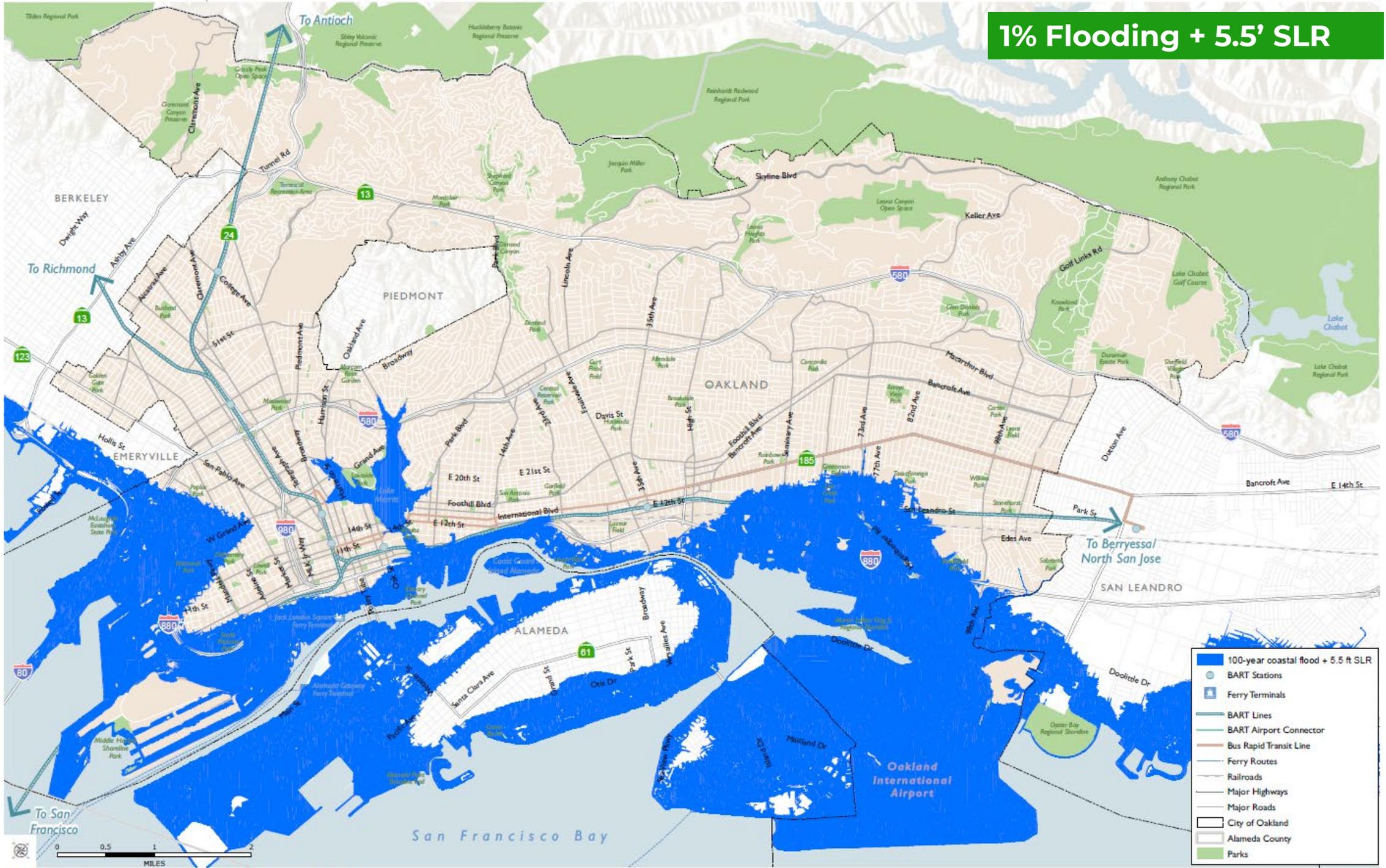
Flood Hazard Zones



1% Flooding + 0.5' SLR



1% Flooding + 5.5' SLR



SOURCE: City of Oakland, 2021; ALAMEDA COUNTY GIS, 2021; Davis & Brody, 2021; BART, 2021; (MHW + 100')

Flood Population Impacts

Communities throughout Oakland face emergency and disaster related logistical barriers.

- Some communities lack access to preparedness information, transportation options, healthcare, and insurance, which increase their vulnerability to the adverse impacts of a flood event.

Flooding susceptibility is generally highest in the low-lying and coastal areas, such as the Coliseum and West Oakland neighborhood.

- Lower-income areas and communities of color predominantly live in census tracts that are more likely to be affected by flooding.
- There is a moderate concentration of people living with a disability (20-30 percent) in some tracts in Downtown Oakland, including Chinatown, plus a tract in West Oakland which are susceptible to flooding.

SLR Vulnerability

Figure 12: Critical Community Facilities and SLR (Western Extent)

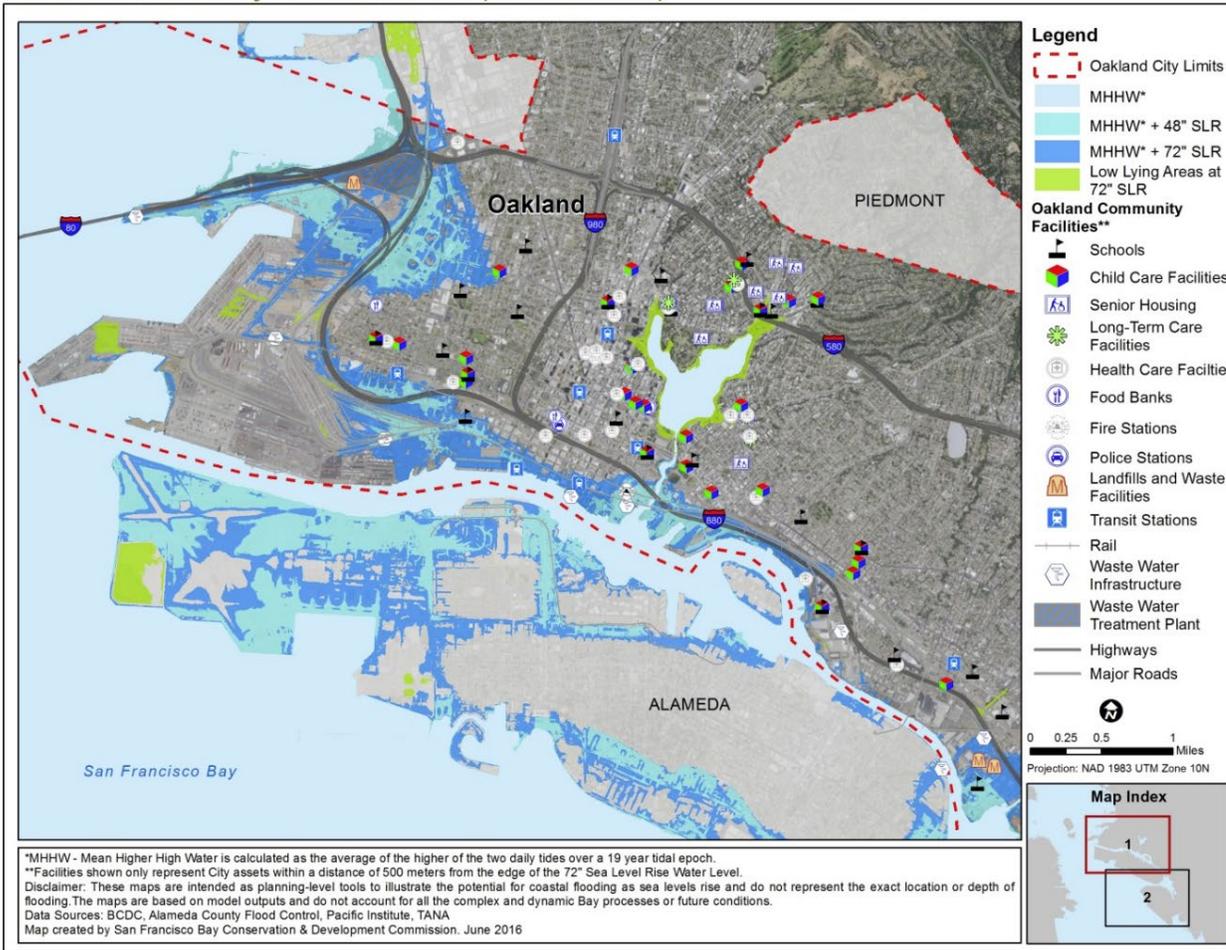
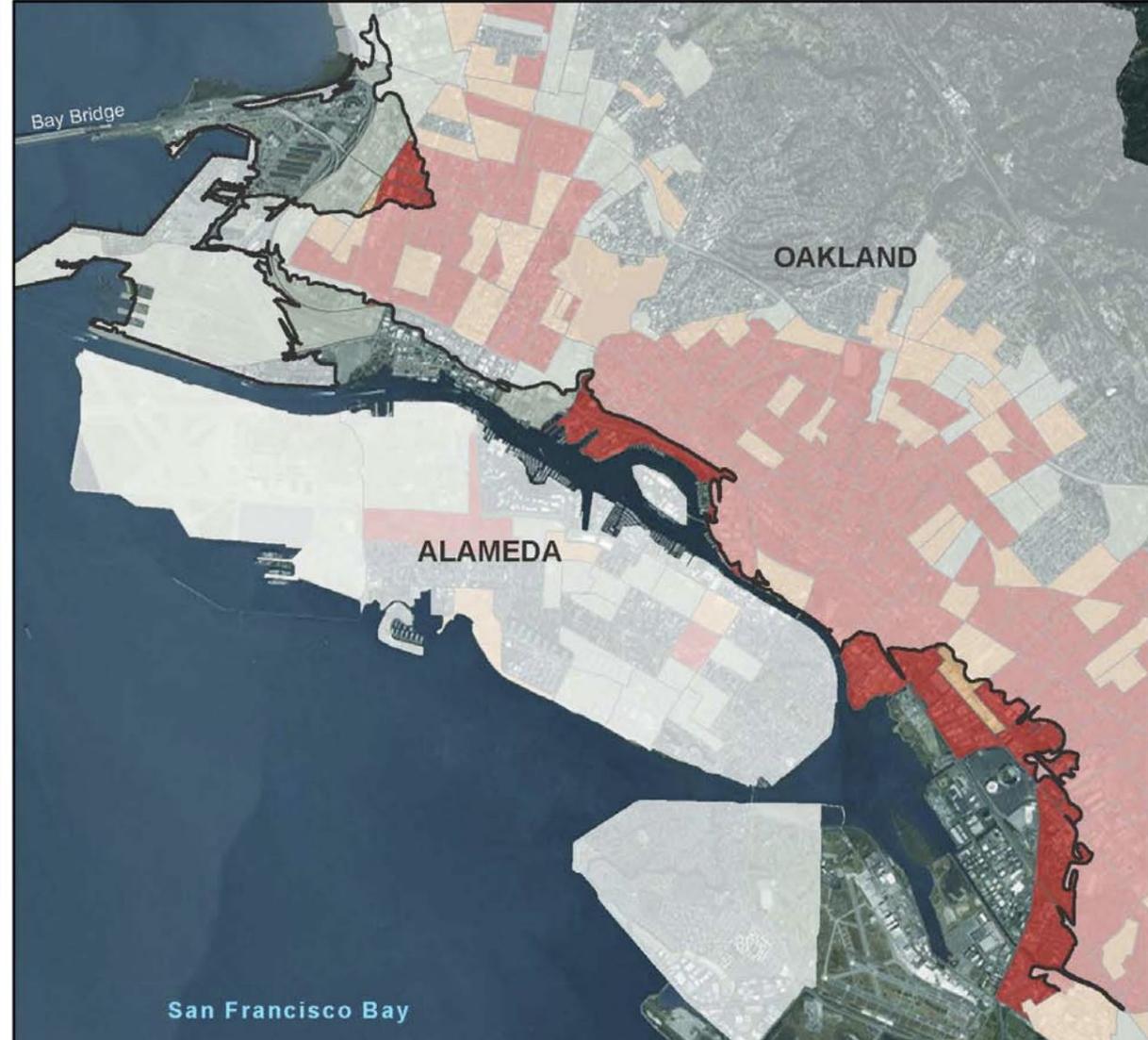
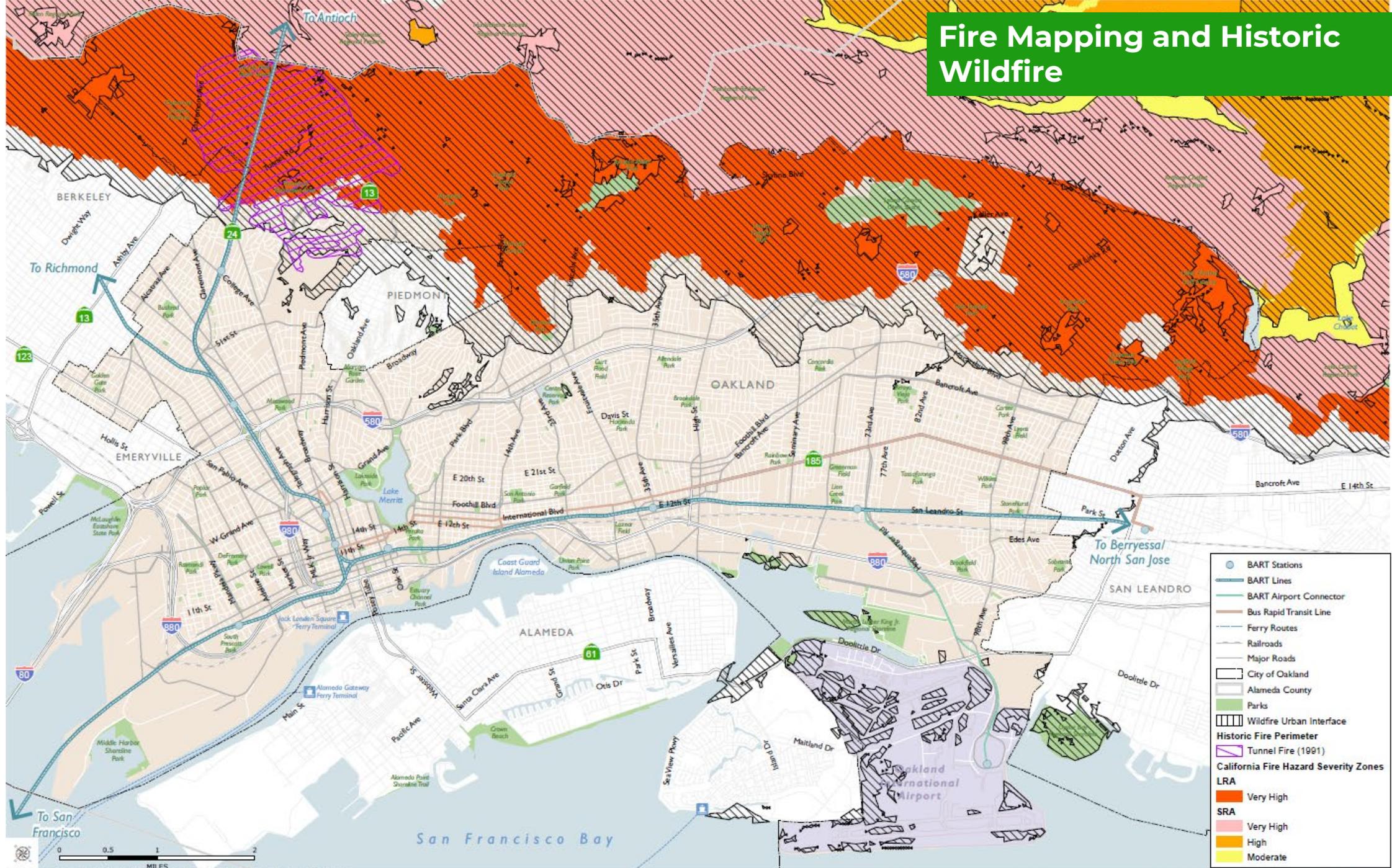


Figure 14: Indicators of Community Vulnerability in Oakland



Fire Mapping and Historic Wildfire



SOURCE: City of Oakland, 2021; ALAMEDA County GIS, 2021; Dyett & Bhasia, 2021; Caffire 2006/2015/2018

Wildfire Population Impacts

Smoke from wildfires occurs throughout the greater region.

- Unhoused populations, outdoor workers, residents who live in poorly insulated or ventilated homes, and people who are already burdened by air pollution are increasingly at risk.
- Children's ongoing lung development, airway size, level of physical activity, and body weight increase their susceptibility to respiratory hazards including ozone and wildfire smoke.

Wildfire threats are most likely to impact the Oakland Hills.

- Census tracts are predominantly higher-income with greater concentrations of white residents.
- Some tracts at the northeastern edge have substantial concentrations of Black and Hispanic/Latinx populations, with slightly lower incomes.

OAKLAND'S LHMP

City of Oakland's Hazard Risk Ranking Story Map Tool

City of Oakland Hazard Mapper

Welcome and Introduction Hazard Mapper Hazard Ranking Dam Failure Climate Change Earthquakes Flooding Landslides Tsunamis

City of Oakland Risk Ranking

Select Planning Area to Filter Bar Chart All Planning Areas (City Total) Select Hazard to See Risk Ranking on the Map Dam Failure

Hazard Ranking Dashboard

The values presented on the Hazard Exposure Ranking Dashboard are the results of the exposure assessment conducted for each hazard scenario identified for the City of Oakland Hazard Mitigation Plan 2021 update.

The bar graphs display the ranking of all hazards relative to hazard exposure values within each selected planning area.

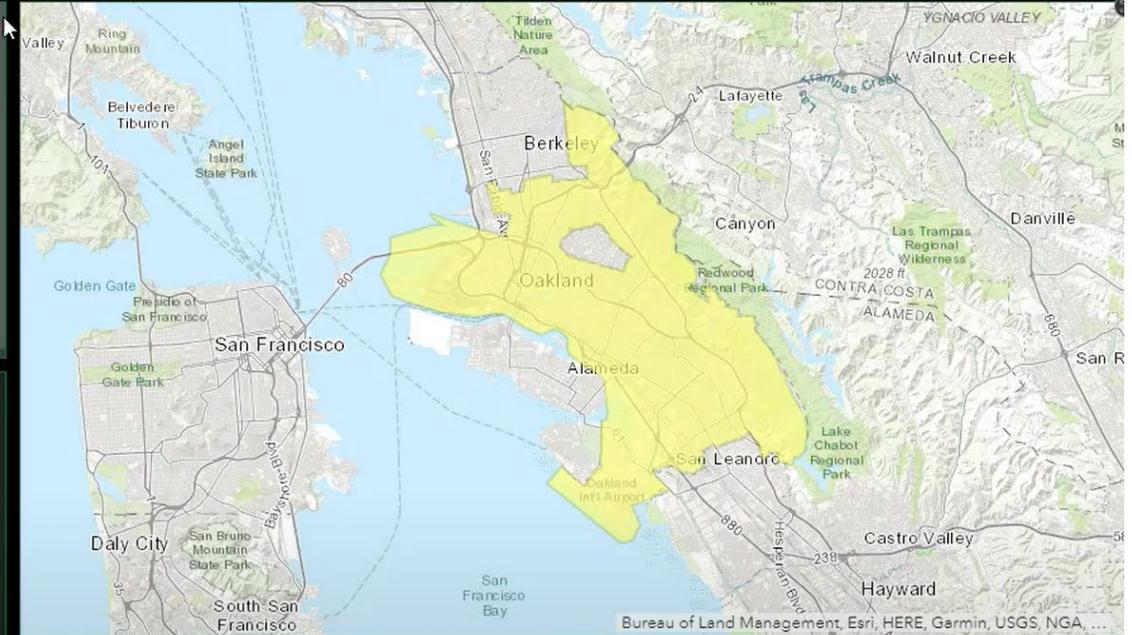
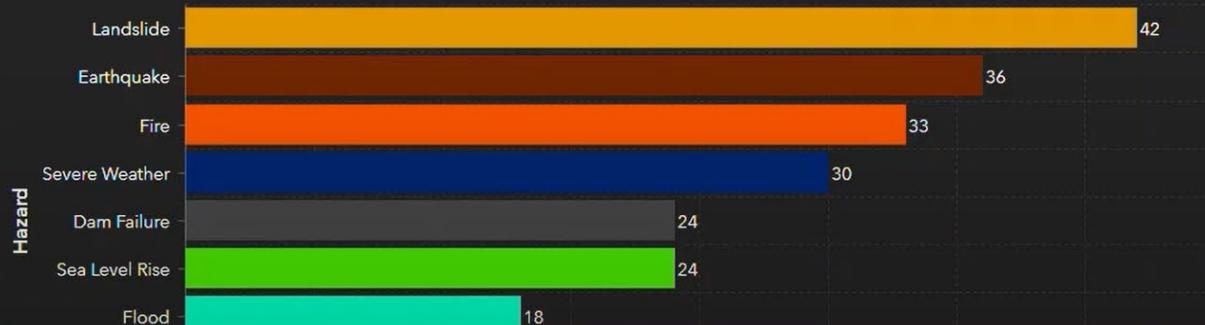
To update the bar graph data, change the planning area selection.
To view hazard layers, click on the layer icon on the map.

You can find more information about the data source and the specific hazard scenario that was assessed in the hazards sections listed below.

Disclaimer:

The hazards included on the chart are limited to the risk assessment completed for the 2021 City of Oakland HMP.

Hazard Risk Ranking within the Selected Planning Area



Legend

City of Oakland Risk Ranking

Select the planning area of interest on the filter bar on the top right

Discussion

Discussion

- **Key Issues.** What are the key safety issues your department or organization addresses?
 - Are there any known concerns or deficiencies in service, distribution of emergency facilities, etc.?
 - What is working well? What existing policies and practices do you think are working well?
- **Gaps.** Where are policy gaps related to safety issues?
 - What policies or strategies would you recommend the City explore to address these gaps?
- **Racial Equity.** How can the City more intentionally address racial equity or needs of vulnerable communities through these policies?
 - How can the City promote equitable emergency response, resiliency, and recovery?

Next Steps

Safety Focus Group #2 on July 8, 3-4:30pm

- Climate Change Adaptation and Resilience
- Policy Discussion



OAKLAND 2045
GENERAL PLAN

Visit the general Plan Update website for more information and to sign-up for regular updates:

www.oaklandca.gov/topics/general-plan-update