

VITAL SIGNS

OVERVIEW + KEY CLIMATE/RESILIENCE FINDINGS
NOVEMBER 17, 2017 - BARC

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Vital Signs tracks 40 performance indicators to understand if the Bay Area is (or is not) making progress towards key regional goals.



The interactive Vital Signs website allows residents to explore trends on the regional, county, city, and even neighborhood levels.

Indicators

About

News Center

Data Center

What's the latest pulse of the Bay Area?

Transportation Commute Time >

2014

↑

30 minutes

Commute times are creeping upward as the region's economic rebound continues.

Land & People Jobs >

2015

↑

3,707,800 jobs

Jobs are growing rapidly, especially in San Francisco and Silicon Valley.

Economy Income >

2015

↑

\$88,800

Despite modest recent increases, median household income has been quite stable for decades.

Environment Ozone Concentrations >

2015

↑

63 parts per billion

Ozone levels are higher than last year but generally have declined over the past several decades.

Indicators

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COMMUTE MODE CHOICE

Regional Performance Local Focus National Context

UPDATED DECEMBER 2015 [Share This](#)

Outpacing other large urban centers in using transit to get to their jobs. Residents of cities like Emeryville, El Cerrito, Albany and Berkeley have transit mode shares even higher than much larger urban centers like San Jose and Oakland.

2014 Commute Mode Choice for Cities and Neighborhoods

Drive Alone Carpool Transit Walk Bike Other Telecommute

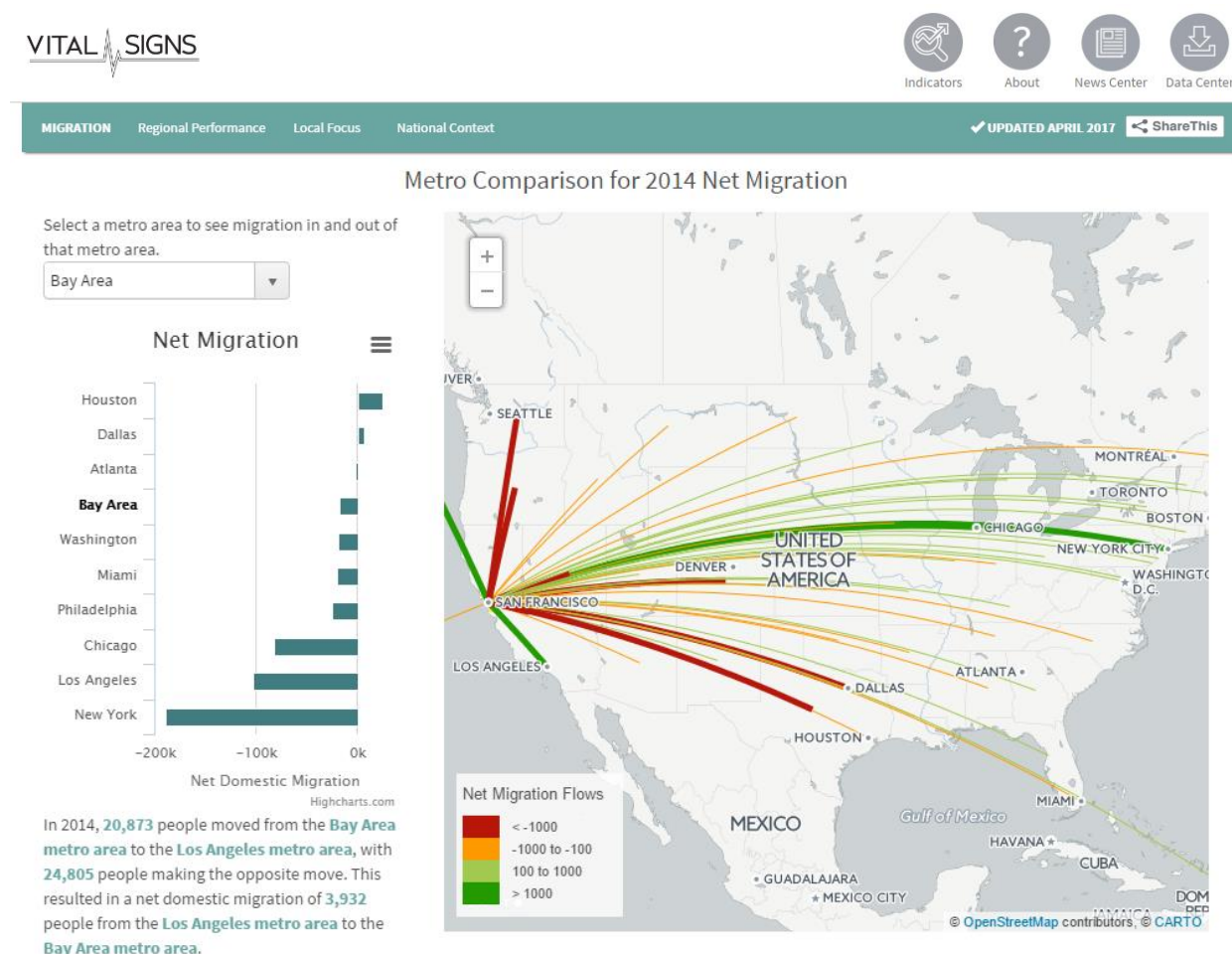
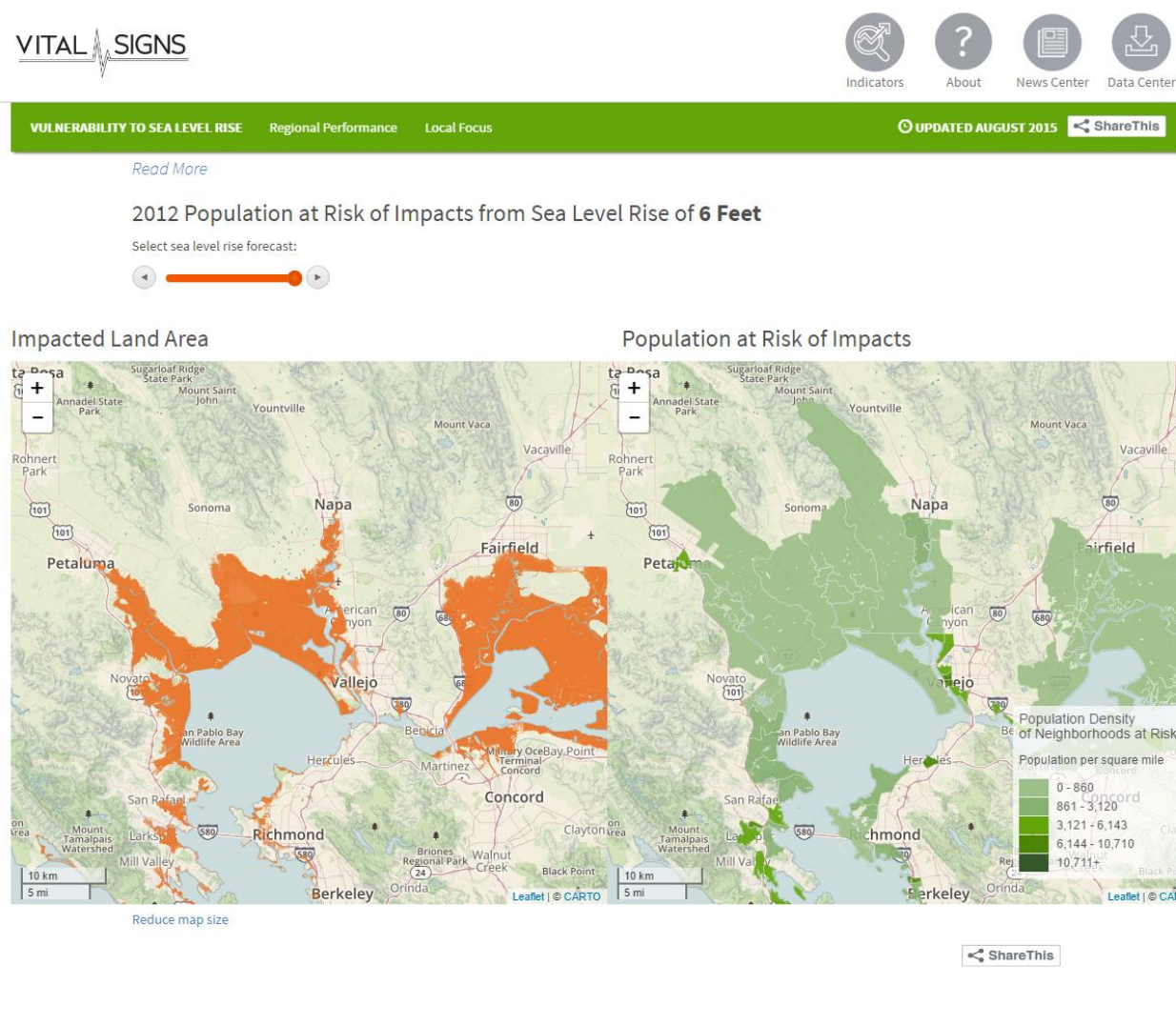
Top Cities for Walking

- Berkeley: 16.2%
- Yountville: 14.2%
- San Francisco: 10.3%
- Sebastopol: 10.0%
- St. Helena: 8.8%
- Emeryville: 7.7%
- Healdsburg: 6.9%
- Sonoma: 6.8%
- Callistoga: 5.7%
- Palo Alto: 5.4%

Tract 6041111000

vitalsigns.mtc.ca.gov

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vitalsigns.mtc.ca.gov

Given BARC's focus on resilience, today's presentation will focus on our latest findings related to climate change and sea level rise.





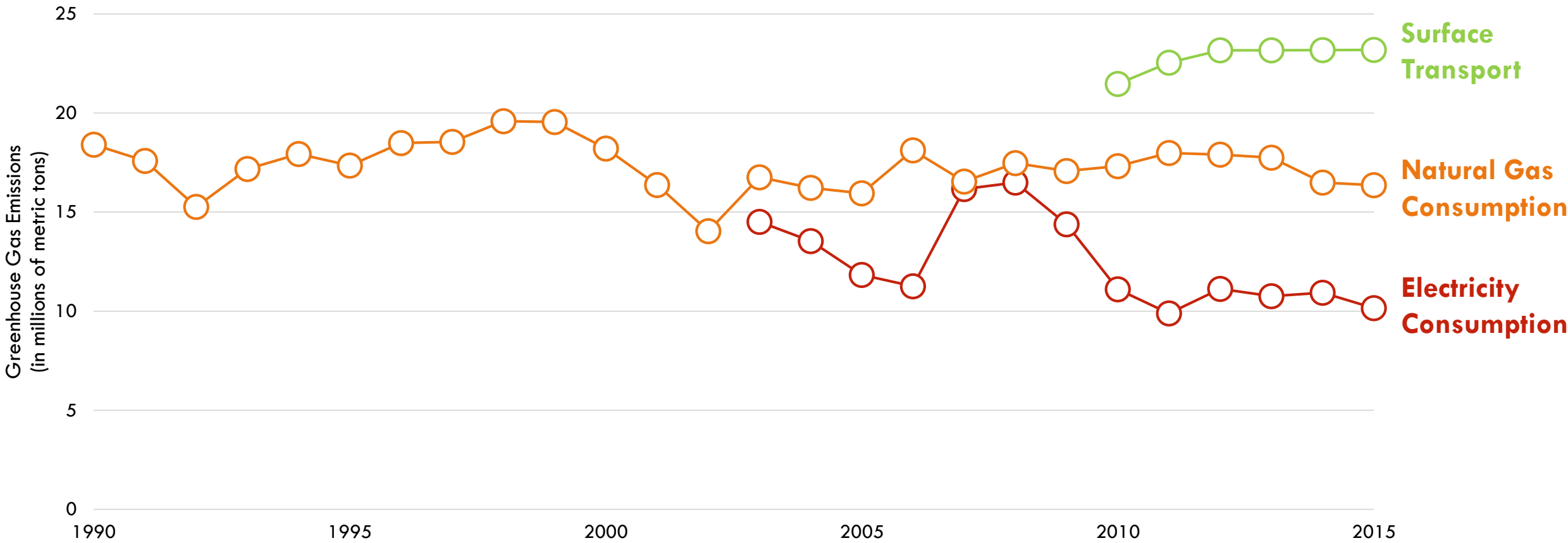
GREENHOUSE GAS EMISSIONS



REGIONAL PERFORMANCE

Reduced consumption of natural gas and electricity, combined with cleaner sources, has reduced GHG emissions.

REGIONAL TOTAL GREENHOUSE GAS EMISSIONS FROM PRIMARY SOURCES



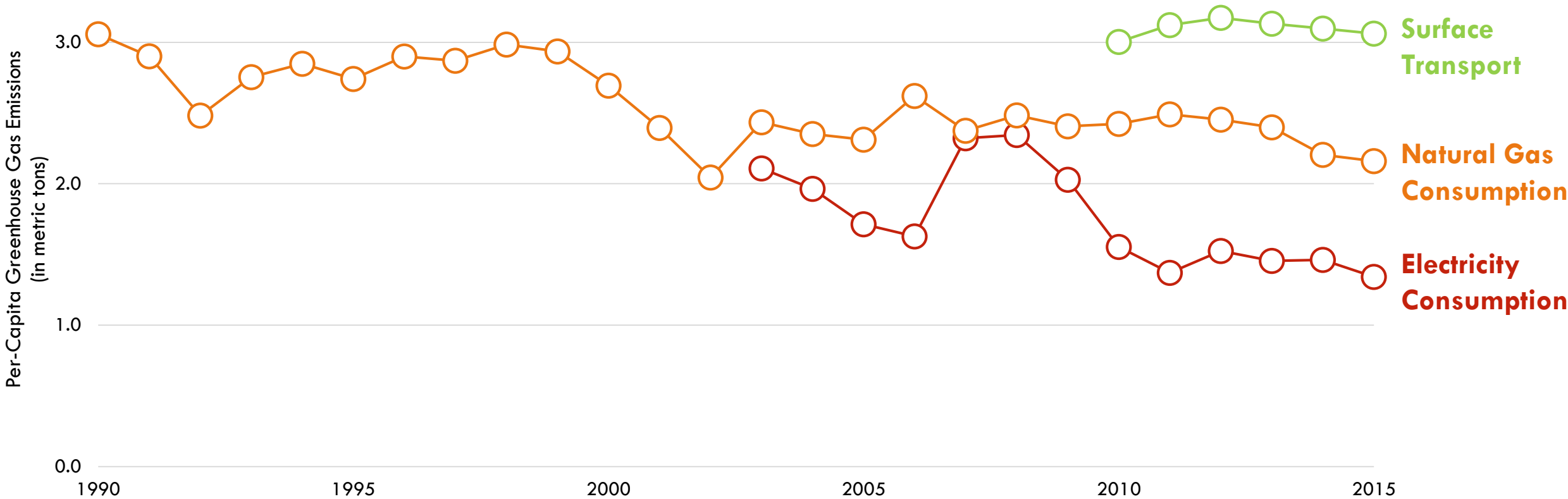
Source: California Energy Commission, 2015; Energy Information Administration, 2015; Pacific Gas & Electric, 2015; note: CCA emissions & non-retail fuel purchases are not captured in this analysis



REGIONAL PERFORMANCE

On a per-capita basis, all three primary sources of greenhouse gas emissions have declined in recent years.

REGIONAL PER-CAPITA GREENHOUSE GAS EMISSIONS FROM PRIMARY SOURCES



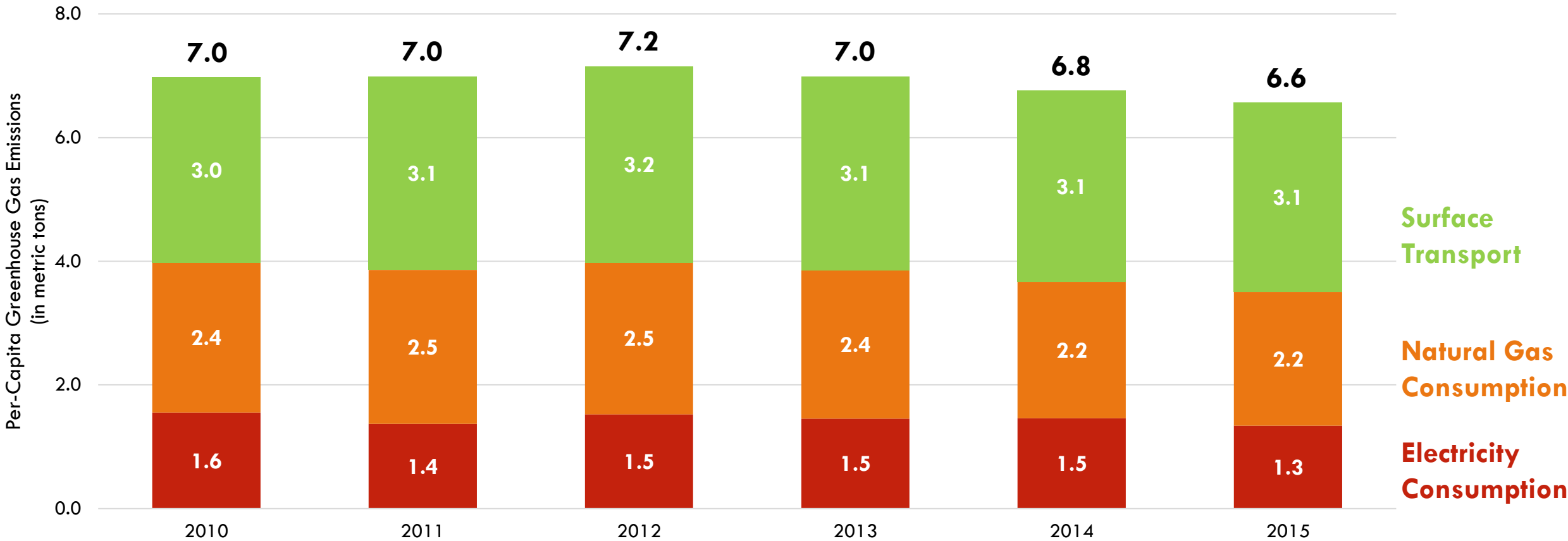
Source: California Energy Commission, 2015; Energy Information Administration, 2015; Pacific Gas & Electric, 2015; note: CCA emissions & non-retail fuel purchases are not captured in this analysis



REGIONAL PERFORMANCE

Surface transportation remains a leading source of GHG emissions and is declining at a slower rate than other sectors.

REGIONAL PER-CAPITA GREENHOUSE GAS EMISSIONS FROM PRIMARY SOURCES



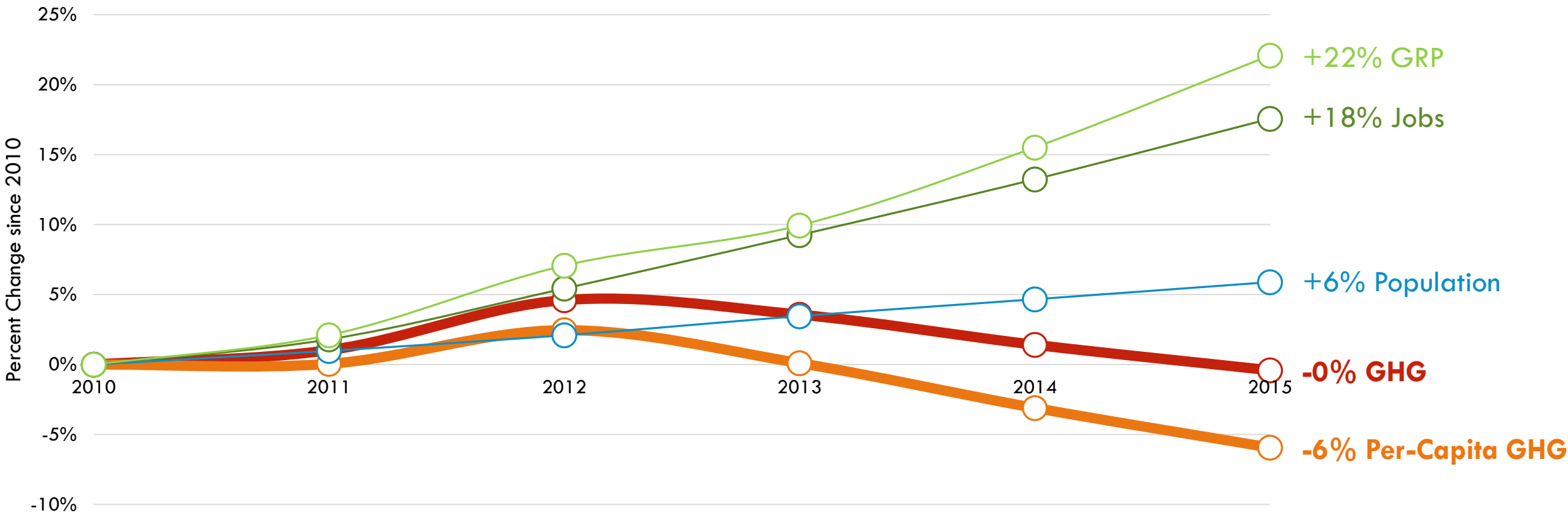
Source: California Energy Commission, 2015; Energy Information Administration, 2015; Pacific Gas & Electric, 2015; note: CCA emissions & non-retail fuel purchases are not captured in this analysis



REGIONAL PERFORMANCE

Since 2012, the Bay Area has seen significant economic growth even as emissions have declined.

CHANGE SINCE 2010 – GREENHOUSE GAS EMISSIONS FROM PRIMARY SOURCES, POPULATION, JOBS AND GROSS REGIONAL PRODUCT

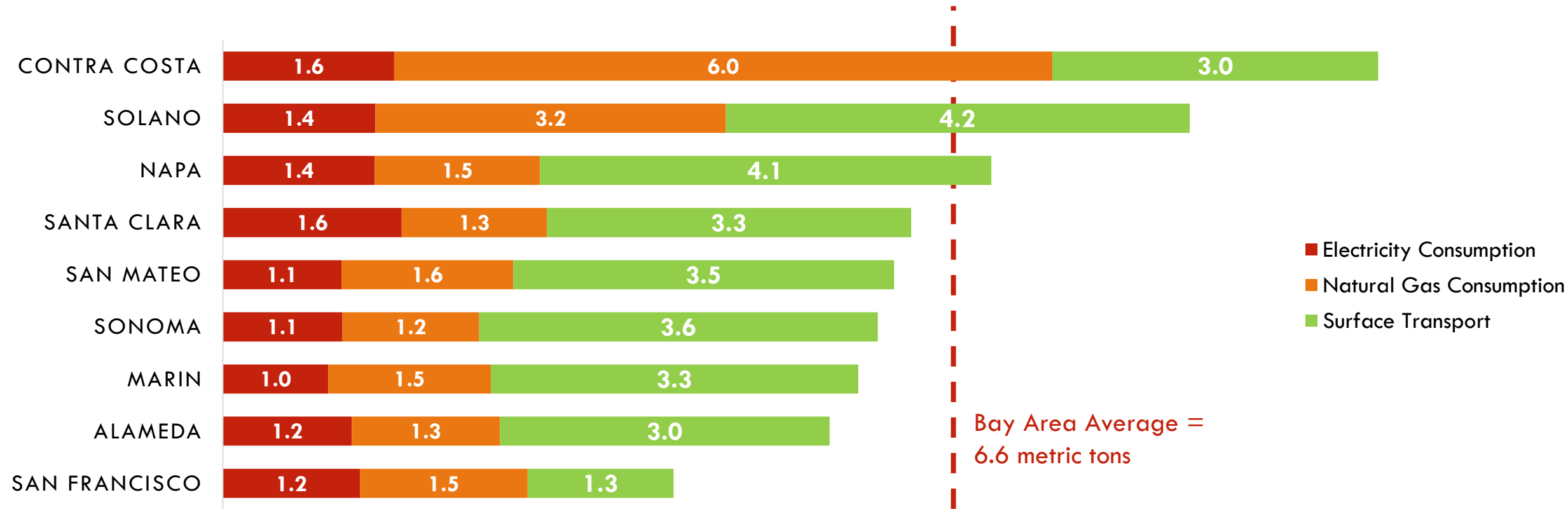




LOCAL FOCUS

Contra Costa and Solano counties have the highest per-capita GHG emission rates due to refineries and heavy industry.

2015 PER-CAPITA GREENHOUSE GAS EMISSIONS FROM PRIMARY SOURCES BY COUNTY



PER-CAPITA GREENHOUSE GAS EMISSIONS (IN METRIC TONS)

Source: California Energy Commission, 2015; Energy Information Administration, 2015; Pacific Gas & Electric, 2015; Department of Finance, 2015

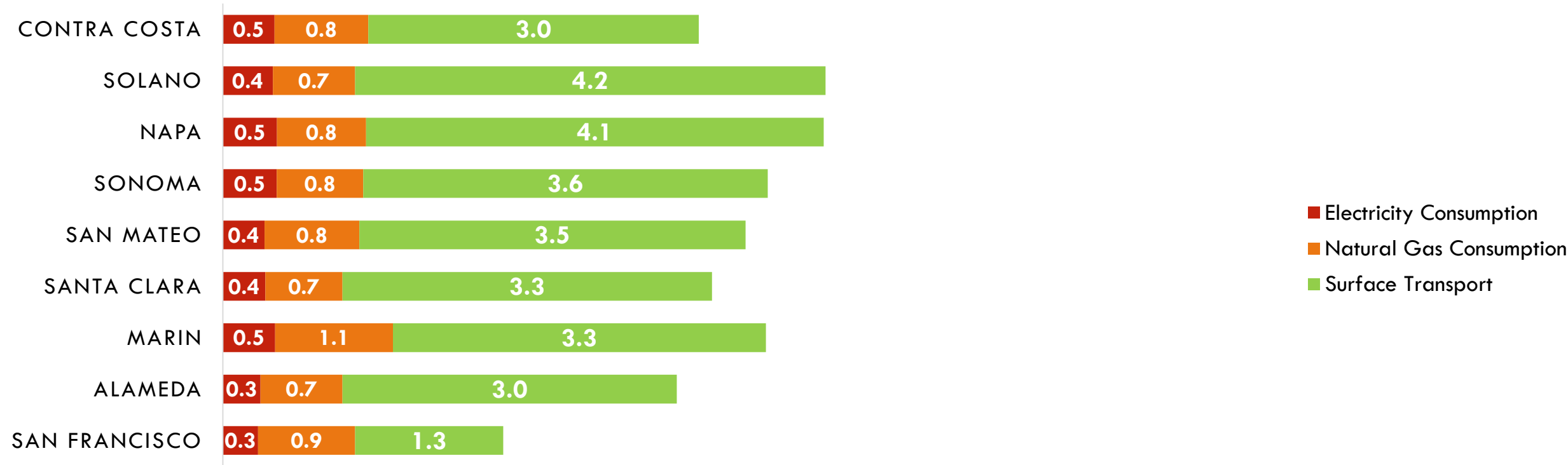
Note: CCA emissions & non-retail fuel purchases are not captured in this analysis



LOCAL FOCUS

Subtracting out non-residential emissions, North Bay counties emerge with above-average per-capita GHG emissions.

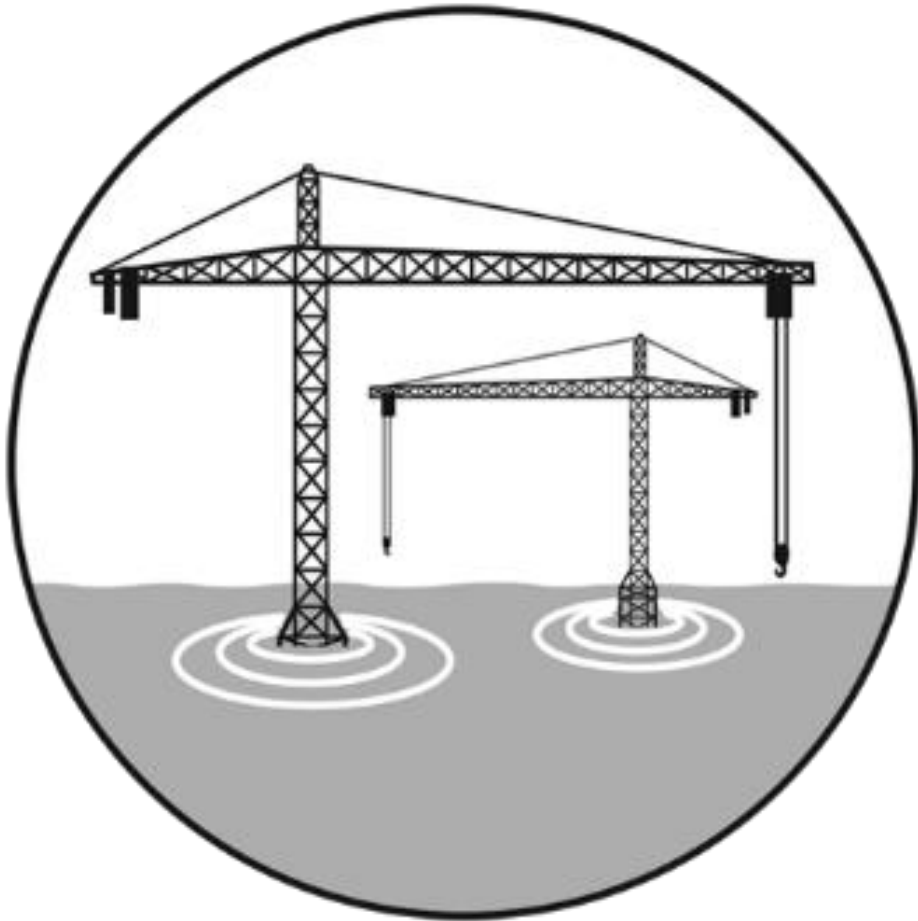
2015 PER-CAPITA GREENHOUSE GAS EMISSIONS FROM PRIMARY SOURCES BY COUNTY
(EXCLUDING NON-RESIDENTIAL EMISSIONS FOR ELECTRICITY AND NATURAL GAS)



PER-CAPITA GREENHOUSE GAS EMISSIONS (IN METRIC TONS)

Source: California Energy Commission, 2015; Energy Information Administration, 2015; Pacific Gas & Electric, 2015; Department of Finance, 2015

Note: CCA emissions & non-retail fuel purchases are not captured in this analysis



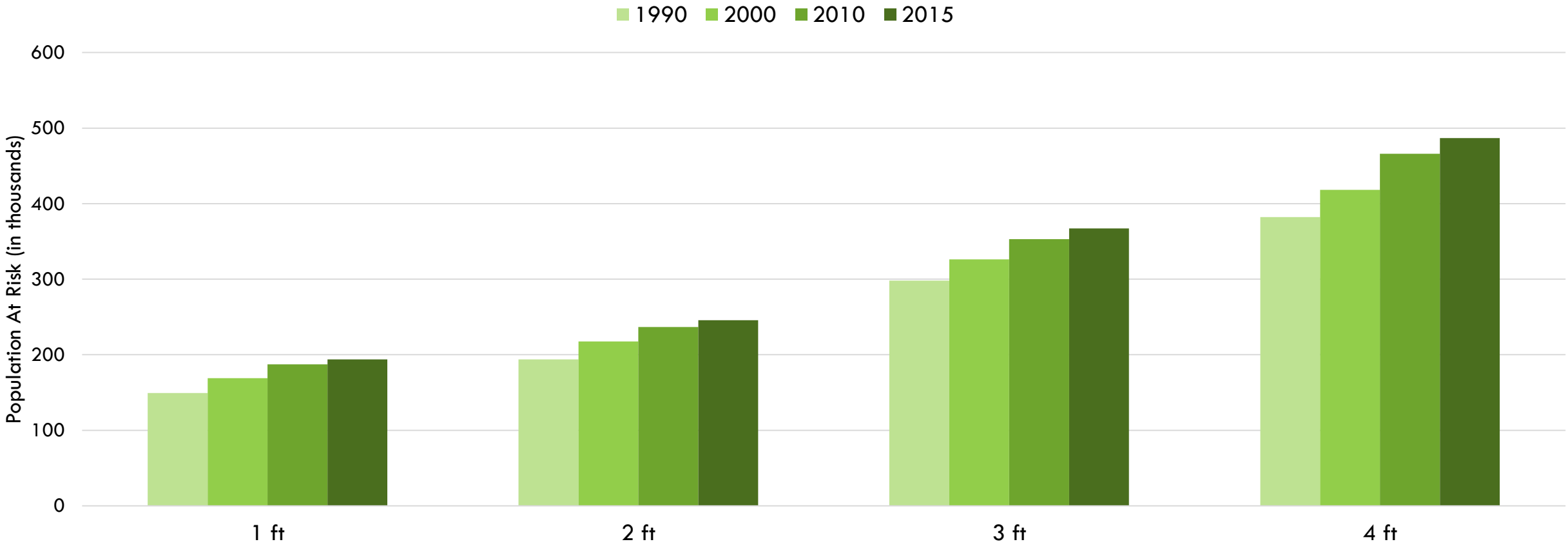
VULNERABILITY TO SEA LEVEL RISE



REGIONAL PERFORMANCE

The number of people living in areas at risk from sea level rise in the Bay Area has grown over time.

REGIONAL POPULATION VULNERABLE TO SEA LEVEL RISE BY SCENARIO

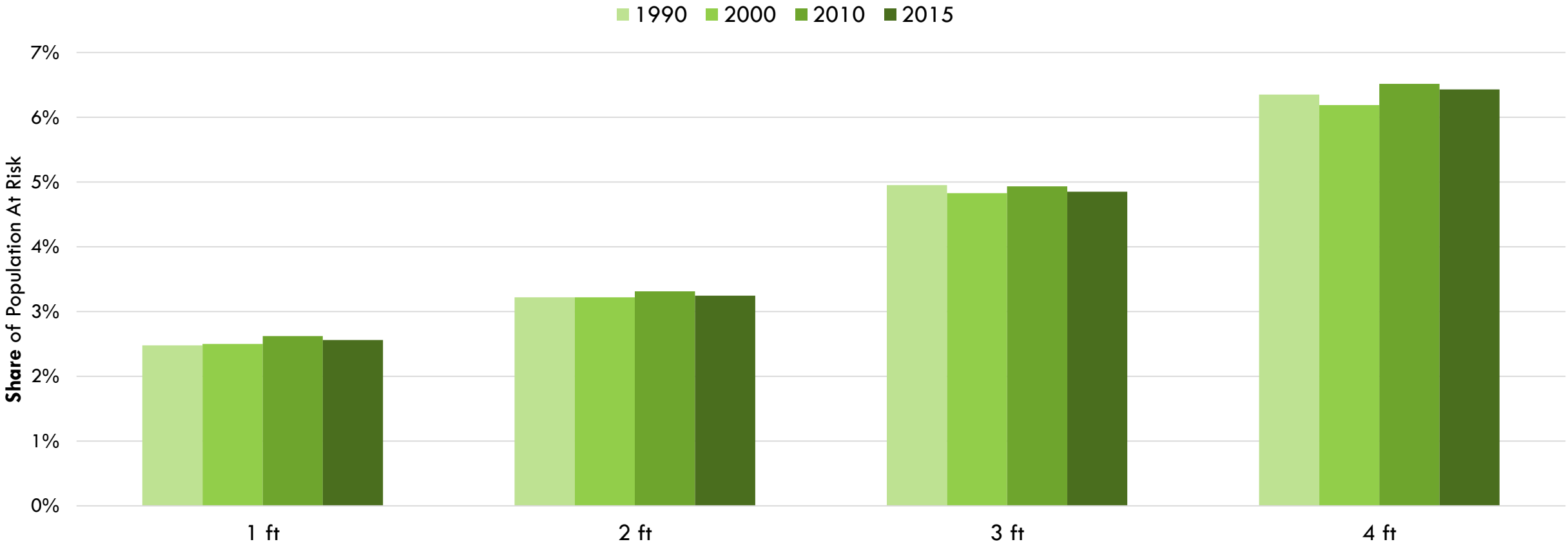




REGIONAL PERFORMANCE

The share of regional population living in inundated zones has remained steady since 1990.

SHARE OF REGIONAL POPULATION VULNERABLE TO SEA LEVEL RISE BY SCENARIO

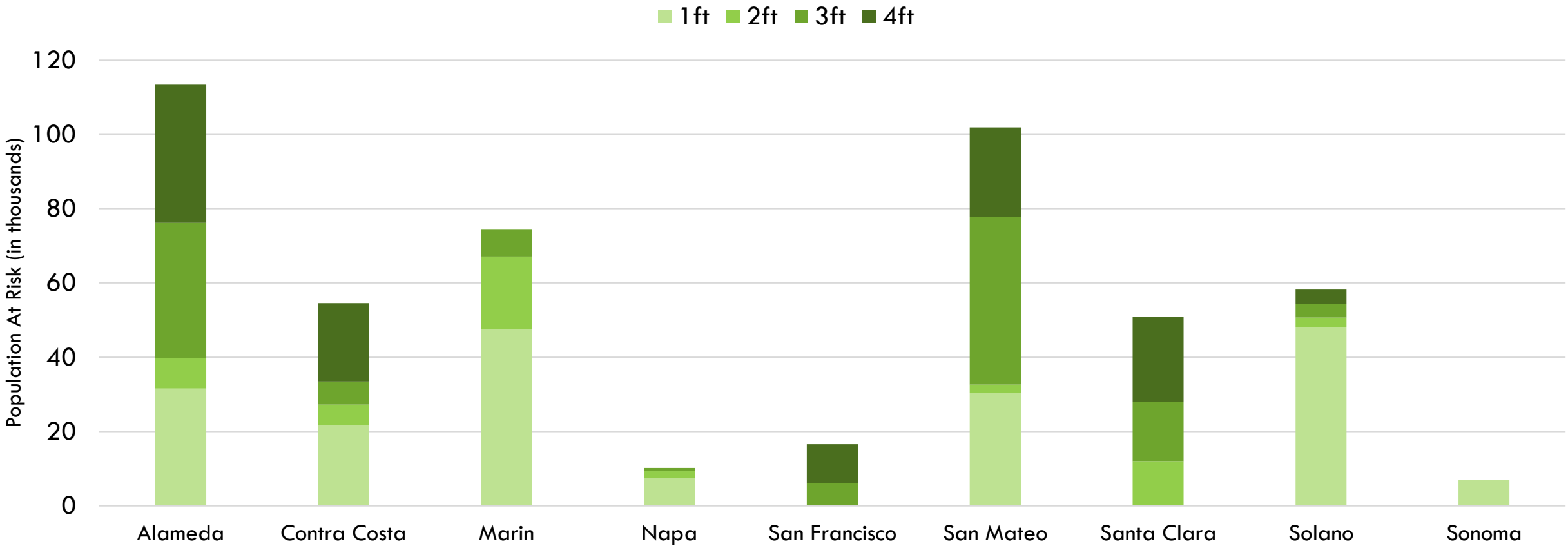




LOCAL FOCUS

Counties face varying levels of threat from sea level rise depending on the proximity of neighborhoods to the Bay.

2015 POPULATION VULNERABLE TO SEA LEVEL RISE BY COUNTY



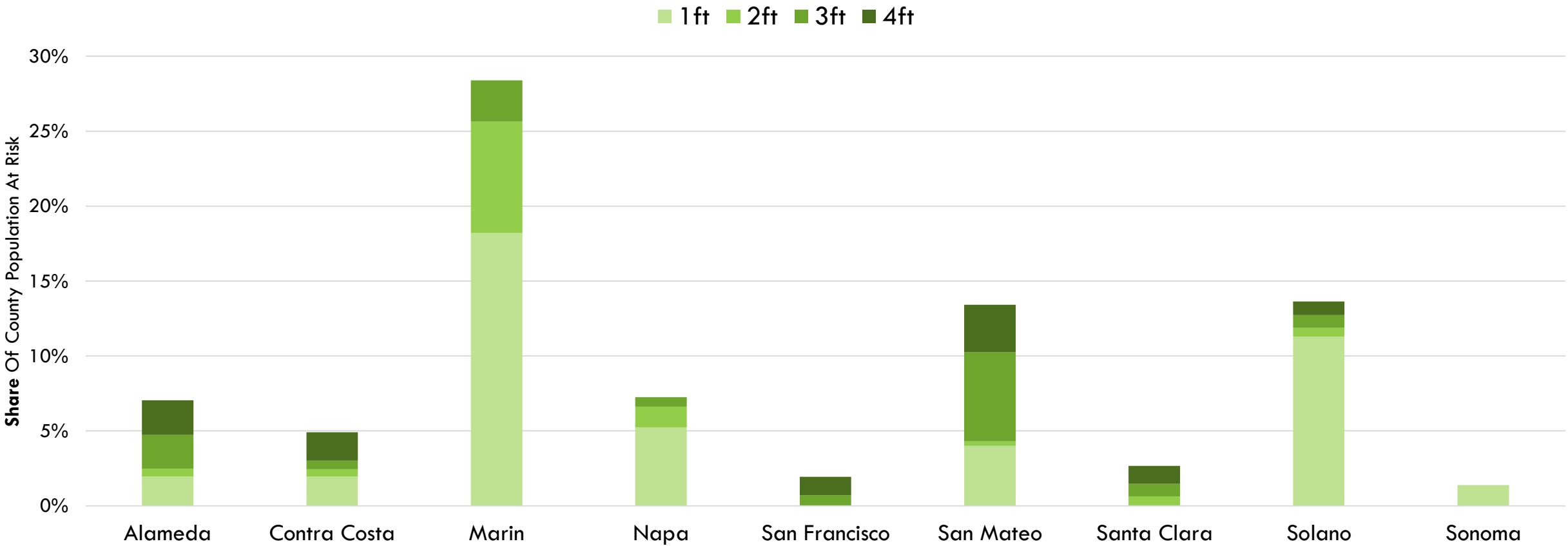
Sources: NOAA; BCDC; U.S. Census Bureau



LOCAL FOCUS

Marin County faces the most disproportionate amount of risk due to its large share of neighborhoods close to the Bay.

SHARE OF 2015 POPULATION VULNERABLE TO SEA LEVEL RISE BY COUNTY



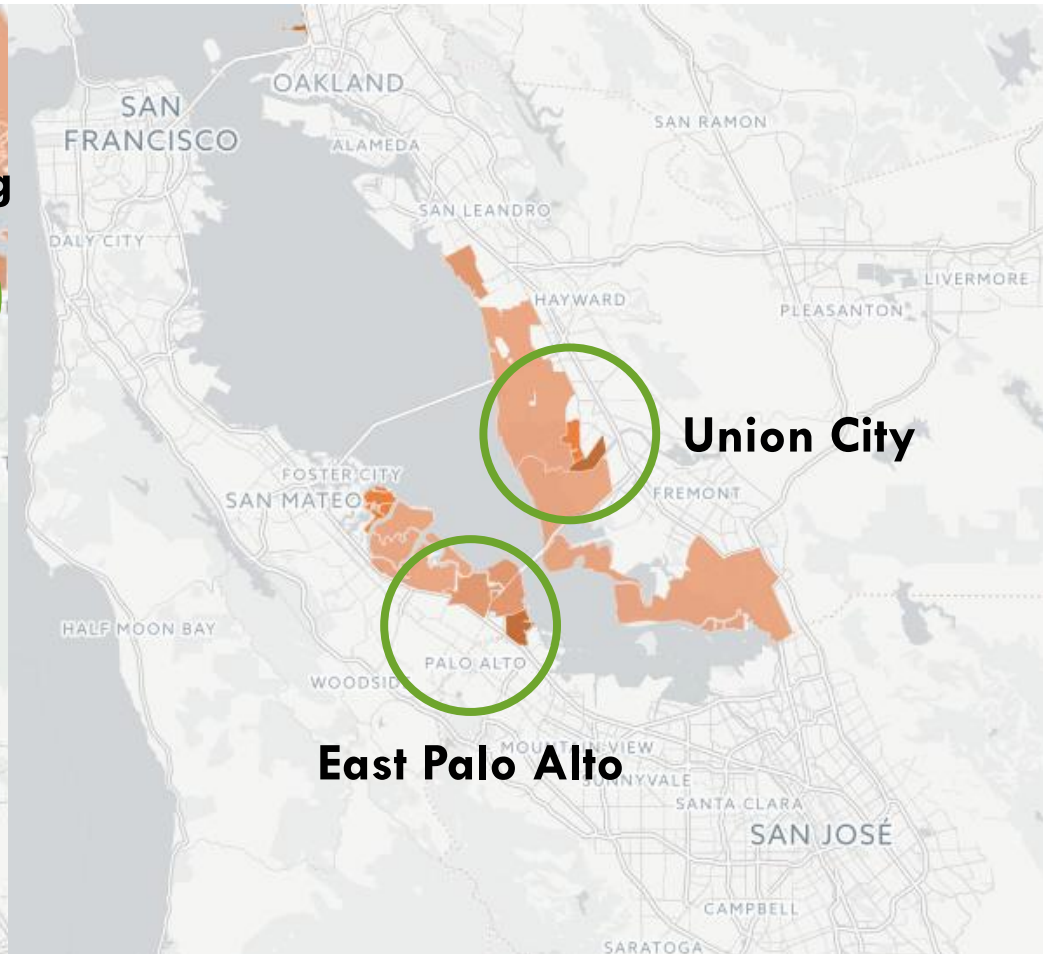
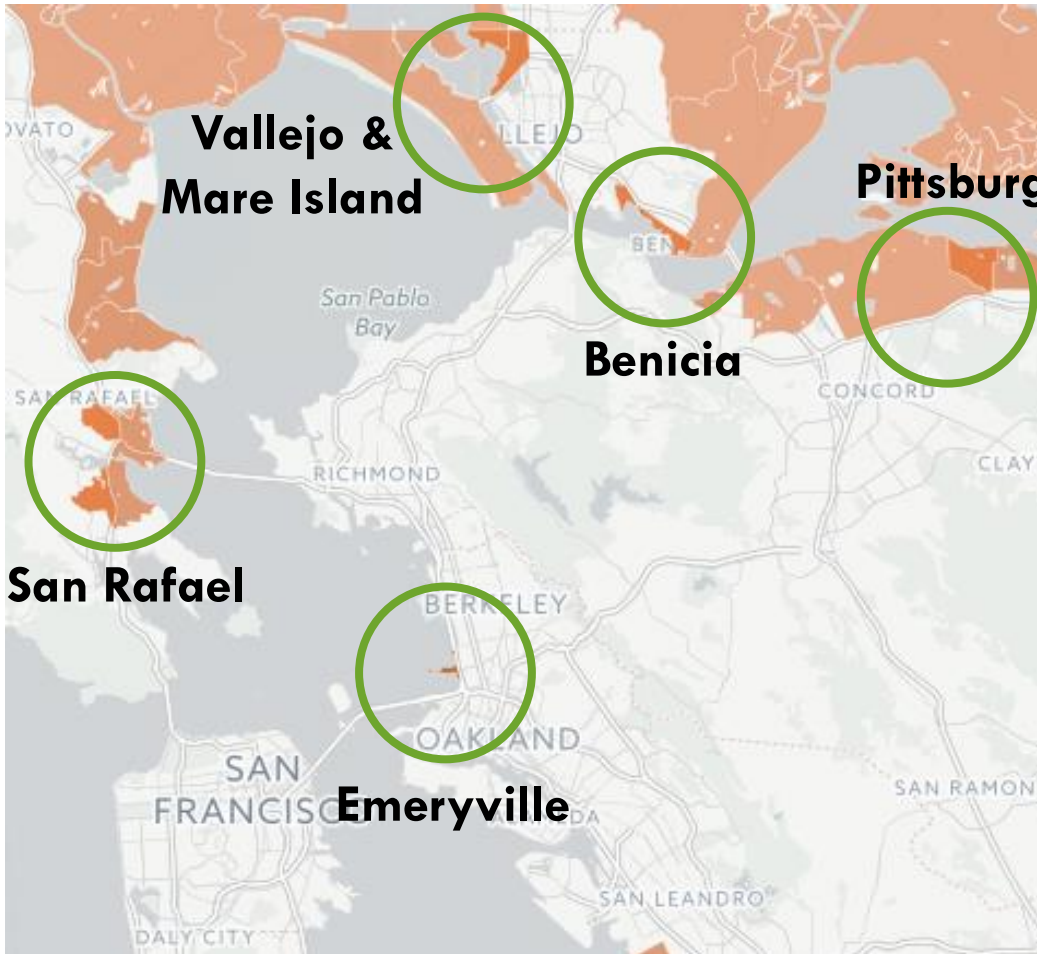
Sources: NOAA; BCDC; U.S. Census Bureau

LOCAL FOCUS

Even under a one-foot sea level rise scenario, a number of Bay Area cities would experience significant adverse impacts.

**At Risk
with 1-Foot
SLR**

Maps show population density of at-risk census tracts. Darker colors represent higher-density areas.

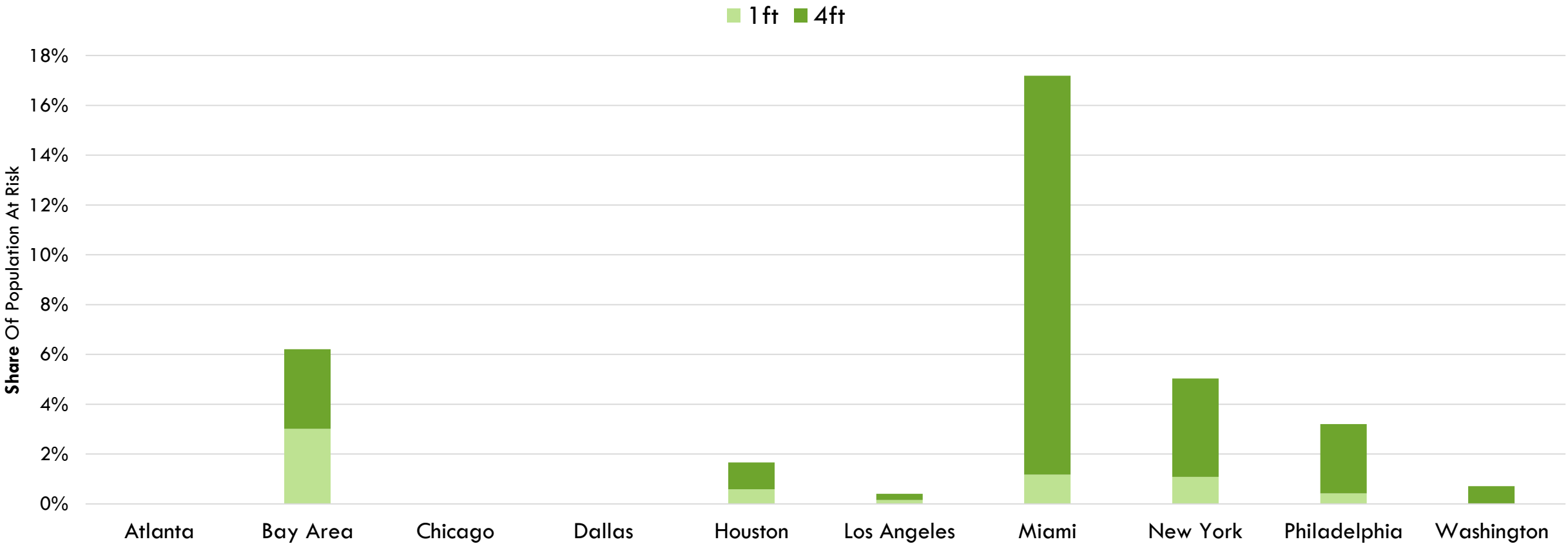




NATIONAL CONTEXT

Of the ten most populous metro areas in the United States, the Bay Area is the most vulnerable under a one-foot scenario.

SHARE OF 2015 POPULATION VULNERABLE TO SEA LEVEL RISE BY METRO AREA



Sources: NOAA; U.S. Census Bureau

Note: Data reflects local sea level rise; the rate of sea level rise is not the same across the country and is faster in the East Coast metros

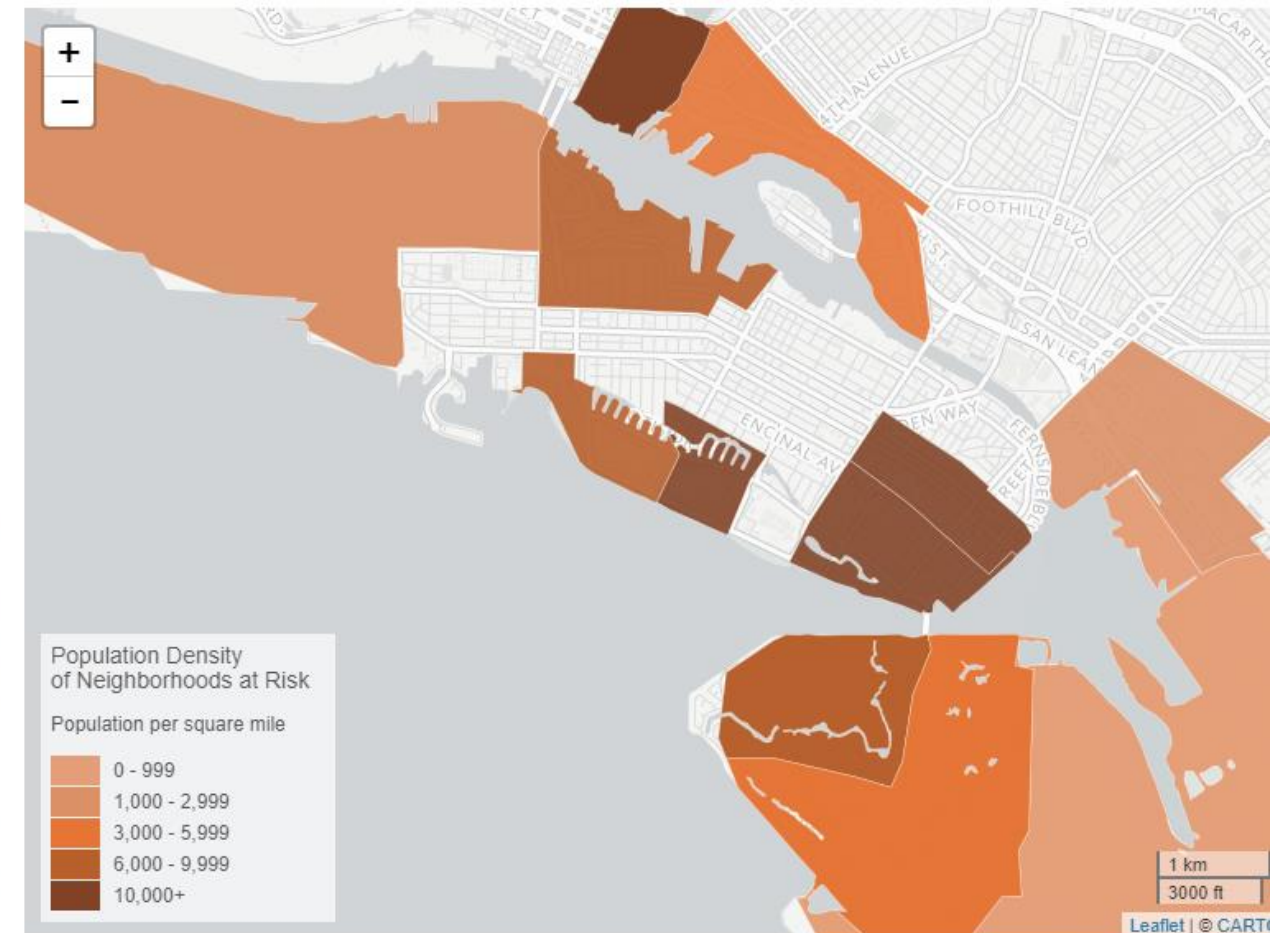
Select sea level rise forecast:



Impacted Land Area



Population at Risk of Impacts



FOR MORE LOCALIZED DATA FROM DIFFERENT SCENARIOS, REFER TO THE VITAL SIGNS WEBSITE: VITALSIGNS.MTC.CA.GOV

VITAL SIGNS

QUESTIONS?



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