

City of SF

Population UP 11%

GDP UP 40%

Emissions DOWN 14.5%

28% less per capita (1990 – 2010)

6.5 mT CO₂ per capita in 2010 vs.
US average > 20 mT per capita

- 100% renewable electricity for residential by 2030
- 80% renewable electricity for commercial by 2030
- 50% of trips non-automobile by 2017 and 80% by 2030
- Achieve zero waste to landfills
- Increase tree canopy to 25% of city land area
- Move Muni buses to 100% renewable fuels

San Francisco

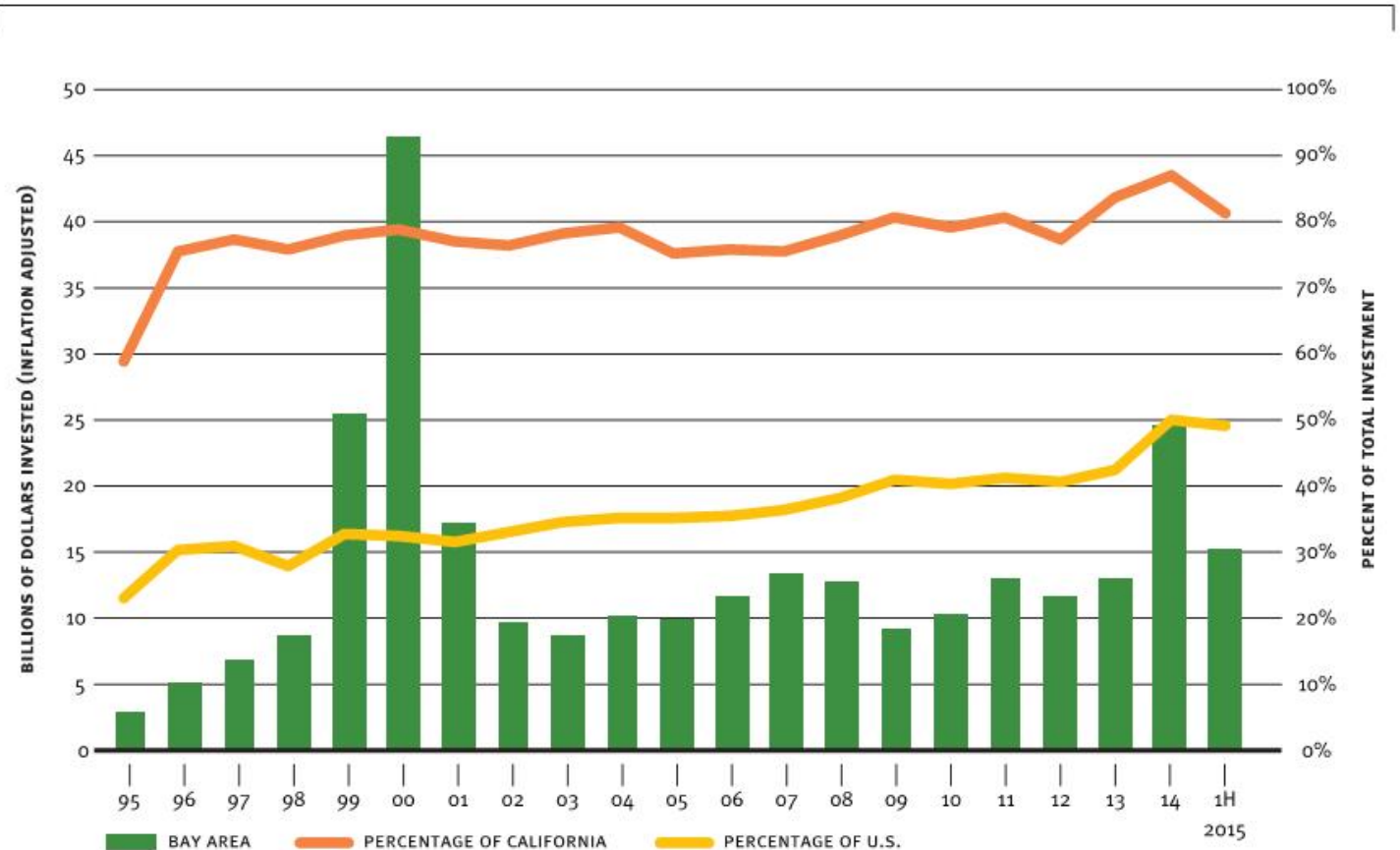
Climate Action Strategy



City of SF – Economic Vitality Indicators

- SF Bay Area – up to 50% of all Venture Capital investments nationally
- California – #1 in business startup activity among 25 large states, per the Kauffman Report

VENTURE CAPITAL INVESTMENT



Note: *Bay Area* Includes northwestern California

Data Source: PricewaterhouseCoopers/National Venture Capital Association MoneyTree™ Report

Analysis: Bay Area Council Economic Institute

City of SF – Economic Vitality Indicators

San Francisco fell 10 spots in Kauffman's 2017 rankings for business startup activity among the 40 leading metro areas – from #4 to #14

San Jose dropped seven spots to #16

Miami ranked #1, Austin ranked #2; Los Angeles and San Diego ranked #3 and #4.

Confidence in the SF Bay Area economy at lowest level in 4 years due to frustrations about housing prices and traffic according to a survey released by the Bay Area Council last month

THE CONVERSATION

Academic rigor, journalistic flair



From 'white flight' to 'bright flight' – the looming risk for our growing cities

May 14, 2017 4:17pm EDT

Australia's population is highly concentrated in a few cities, so once centres like Newcastle have absorbed the spill-over from high-cost capitals, where will the talent go? City of Newcastle/AAP

Author

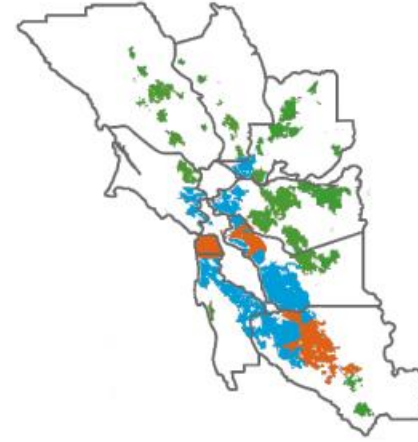
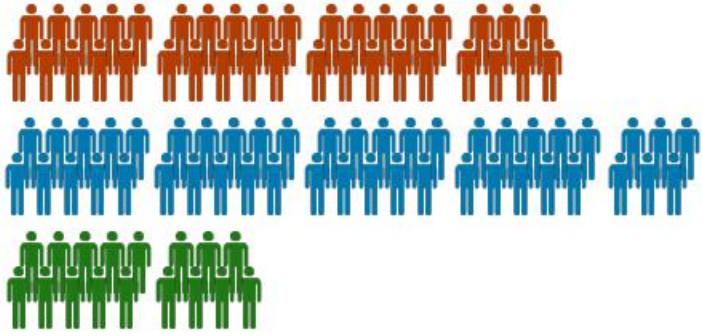


Jason Twill
Innovation Fellow and Senior Lecturer,
School of Architecture, University of
Technology Sydney

Kaufman Index, www.kauffman.org

Plan Bay Area 2040 – Challenge

Jobs added from 2011 through 2015: **501,000**
Housing units built from 2011 through 2015: **65,000**



Big 3 Cities:

1 housing unit built for every **7 jobs** created

Bayside Cities and Towns:

1 housing unit built for every **15 jobs** created

Inland, Coastal, Delta Cities and Towns:

1 housing unit built for every **3 jobs** created

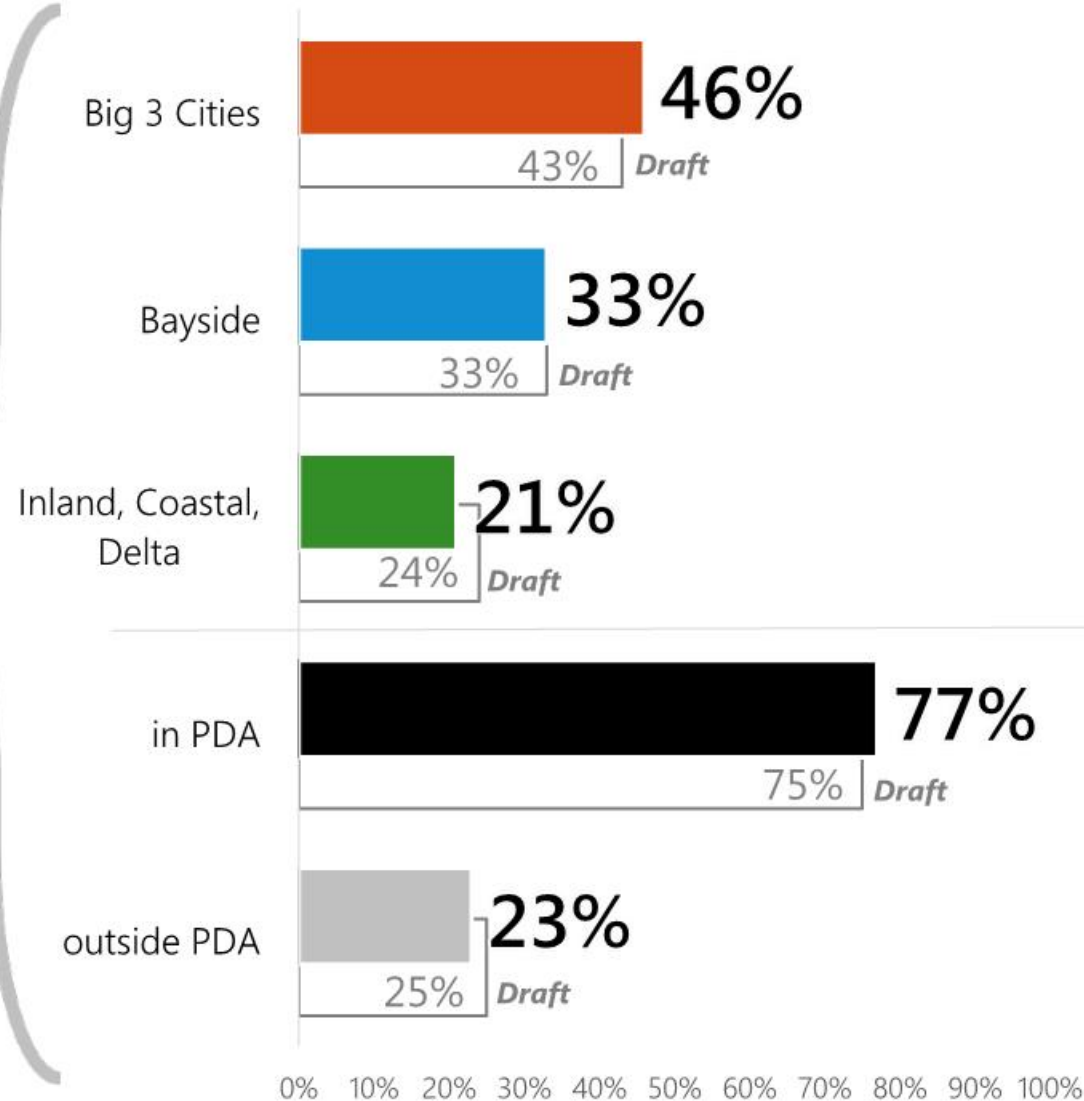
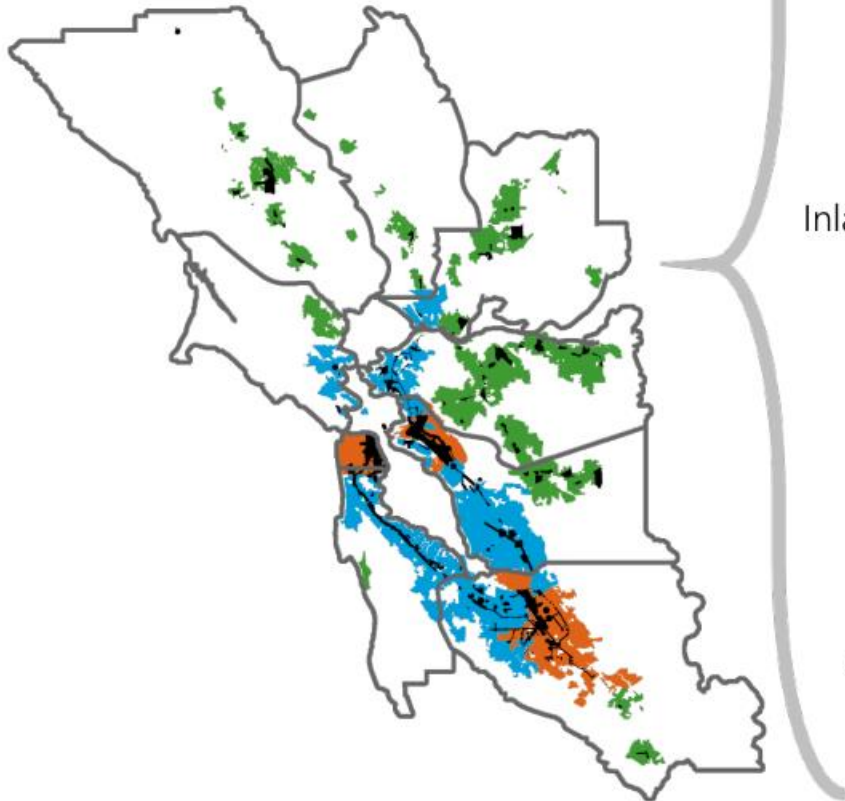
Regionally: 1 house was built for every **8 jobs** created

<http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php>



Plan Bay Area 2040 – Housing Allocation

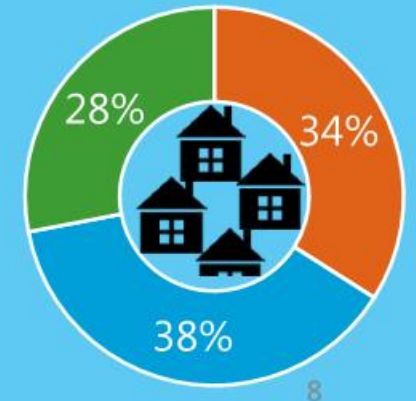
Where will the region plan for the **820,000** new households?



2010: **2.6 million** households

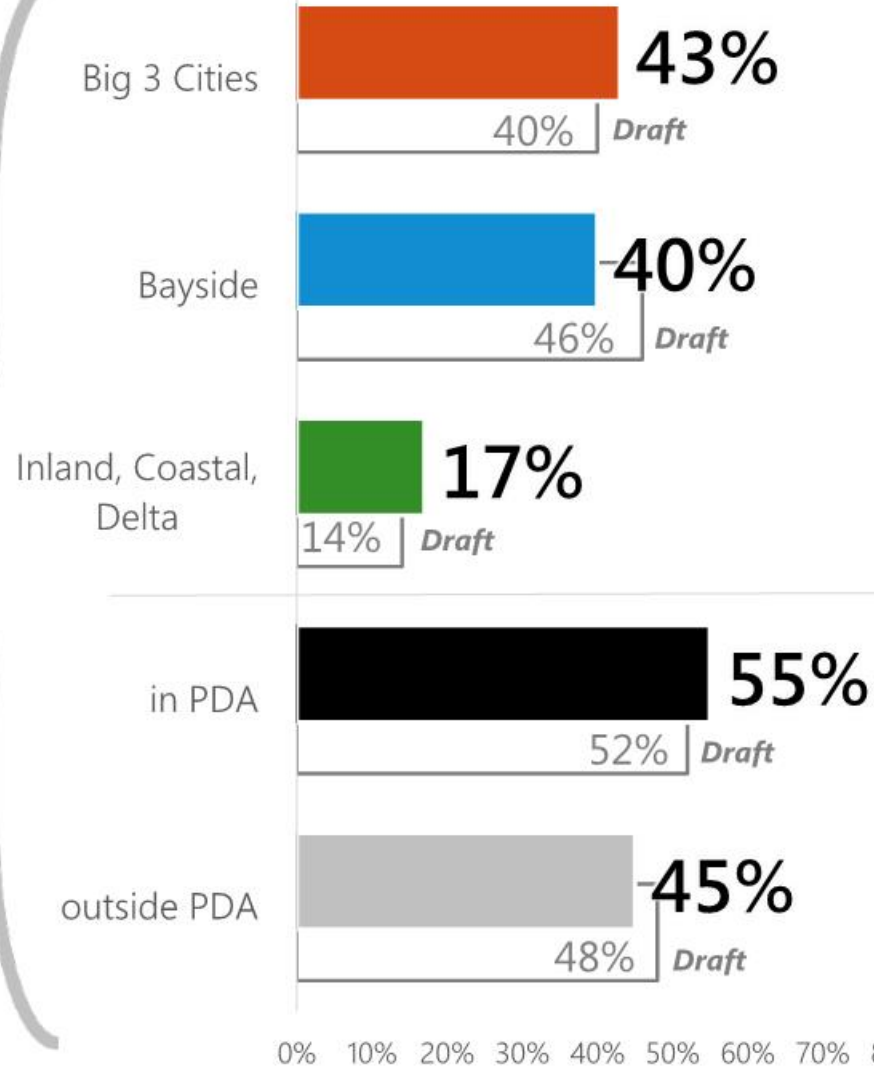
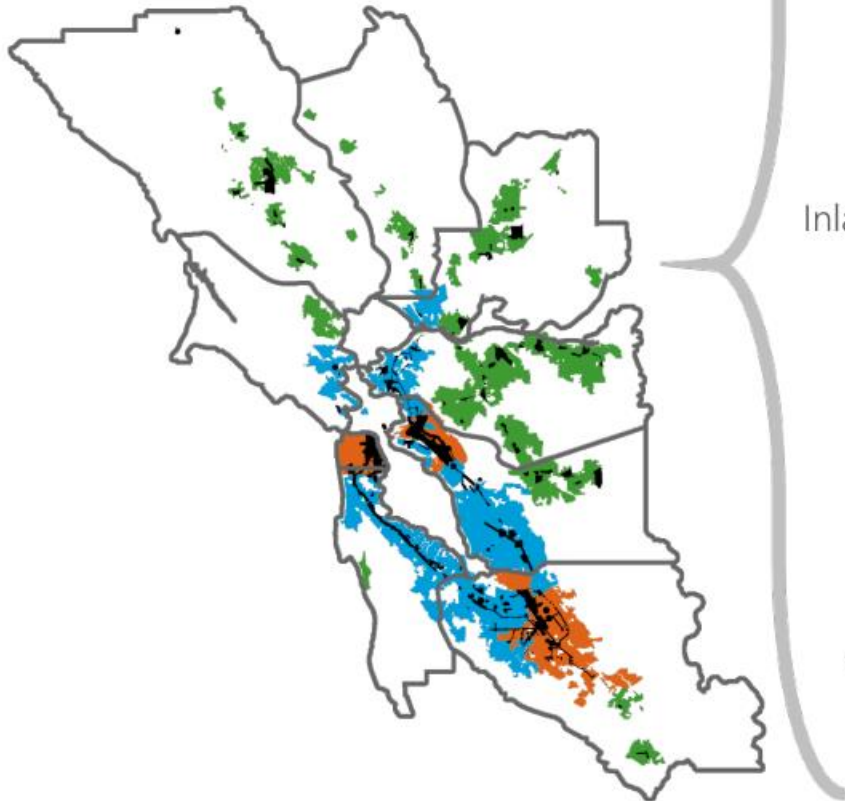


2040: **3.4 million** households

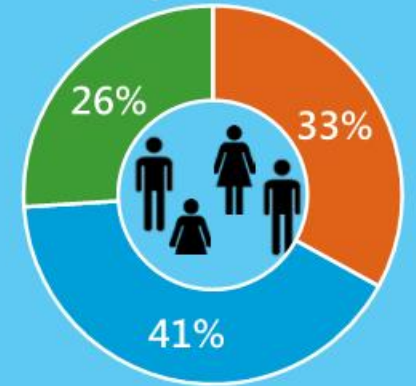


Plan Bay Area 2040 – Jobs Allocation

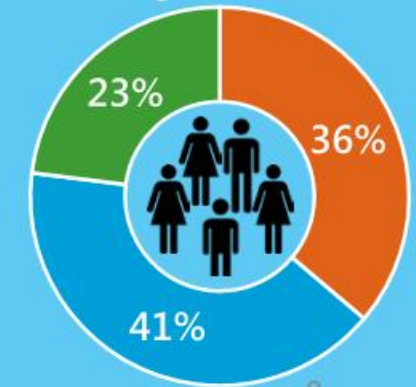
Where will the region plan for the **1.3 million** new jobs?



2010: **3.4 million** jobs



2040: **4.7 million** jobs



Plan Bay Area

PERFORMANCE TARGET SUMMARY FOR THE FINAL PREFERRED SCENARIO

*Refer to
Attachment D1 for
detailed results.*

*Final performance
results will differ slightly
from those shown here,
as the final scenarios will
include a complete network
of all transportation
projects. The final results
will also be analyzed
against the 2040 Plan
horizon year.*

TARGET ACHIEVED (5)



Climate Protection



Adequate Housing



Open Space and
Agricultural
Preservation



Middle-Wage Job
Creation



Goods Movement/
Congestion
Reduction

RIGHT DIRECTION (5)



Healthy and Safe
Communities



Affordable Housing



Non-Auto Mode
Shift



Road Maintenance



Transit
Maintenance

WRONG DIRECTION (3)



Housing +
Transportation
Affordability



Displacement Risk



Access to Jobs

Plan Bay Area – Equity Challenge

SELECT PERFORMANCE TARGET RESULTS

**Housing + Transportation
Affordability**



No Project: +14%

Final Pref.: +13%

Displacement Risk



No Project: +20%

Final Pref.: +9%

Access to Jobs

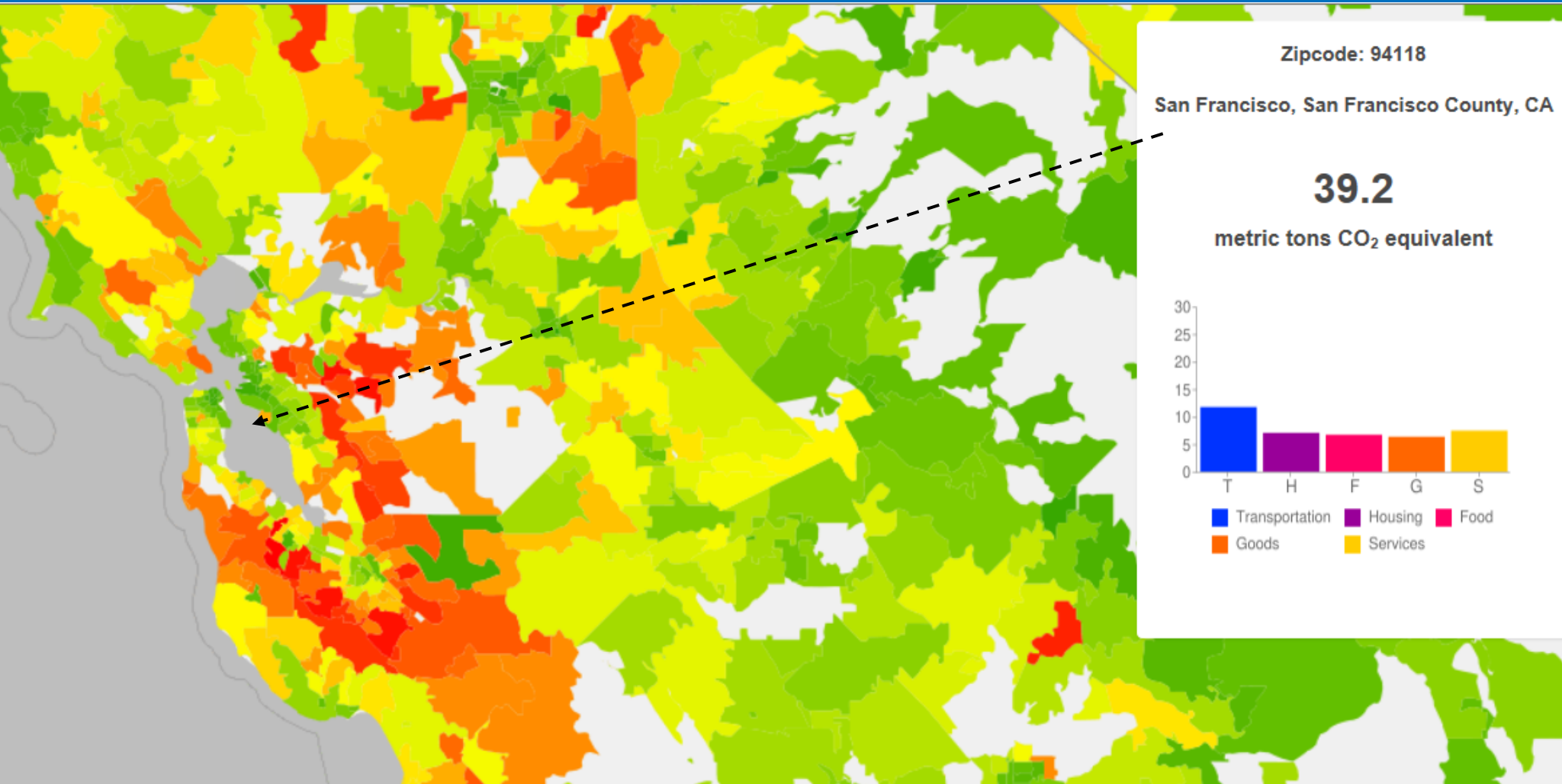
No Project: -2%

Final Pref.: -0%



Final performance results will differ slightly from those shown here, as the final scenarios will include a complete network of all transportation projects. The final results will also be analyzed against the 2040 Plan horizon year.

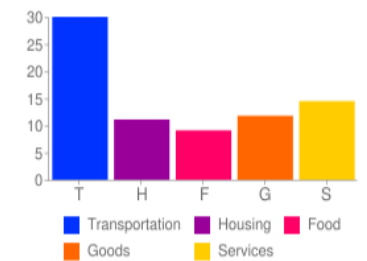
Environmental Cost of Sprawl



Zipcode: 94506
Danville, Contra Costa County, CA

77.2

metric tons CO₂ equivalent

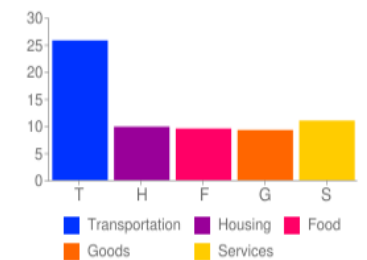


Zipcode: 94539

Fremont, Alameda County, CA

65.4

metric tons CO₂ equivalent

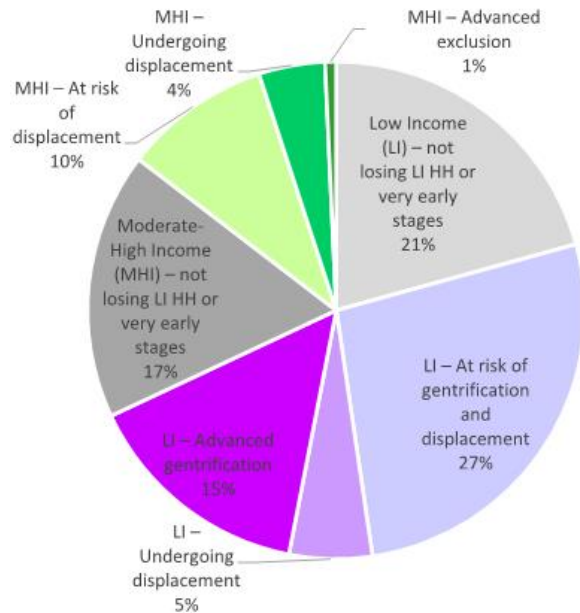


<http://coolclimate.berkeley.edu/maps>

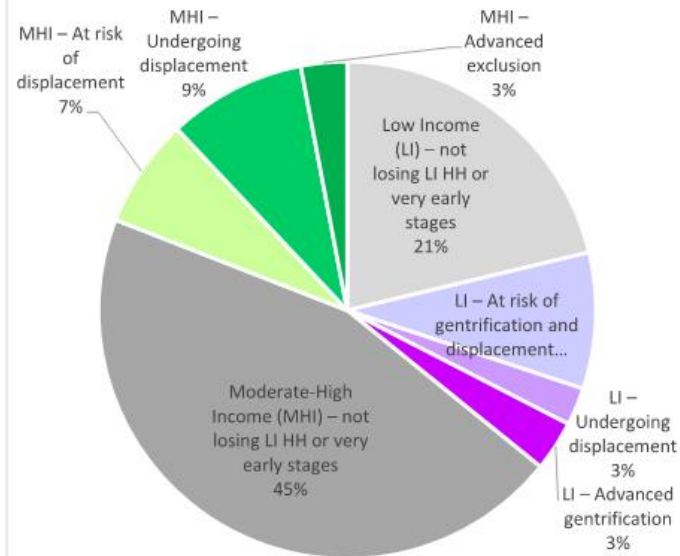
Hidden Cost of Transit Oriented Development...

UC Berkeley
Regional Early Warning System for Displacement

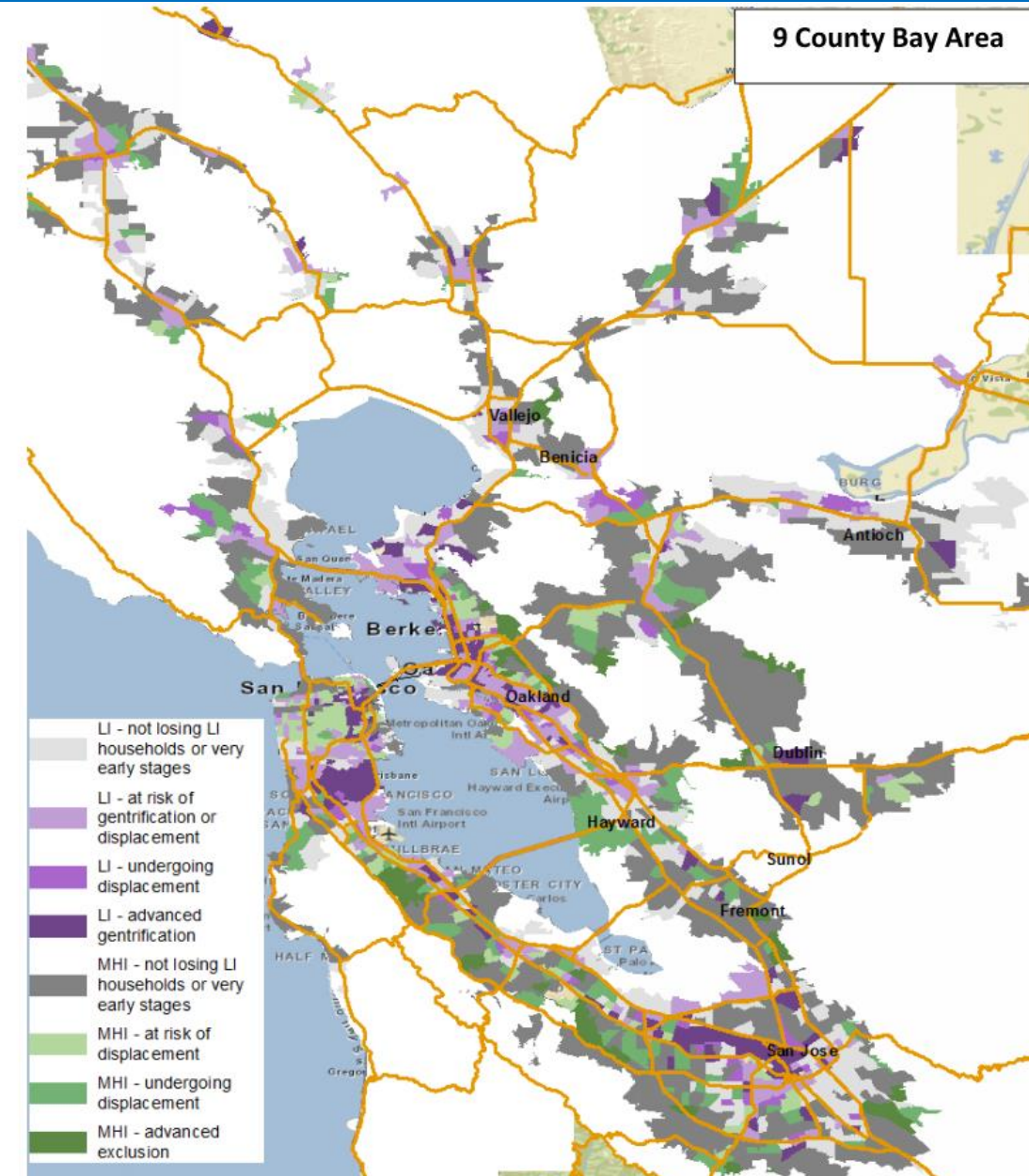
Tracts with PDAs



Tracts w/out PDAs



Source: Regional Early Warning System for Displacement (REWS), a project of the Center for Community Innovation at UC Berkeley, supported by the Bay Area Regional Prosperity Plan and the California Air Resources Board



SB 32 – Global Warming Solutions Act

Signed by Governor Jerry Brown in September 2016 --
Provides legislative authority for 2030 Goals

Companion Bill AB 197:
Addresses Environmental Justice concerns – requires consideration of “social costs” and protects vulnerable communities.





RESILIENT

BAY AREA CHALLENGE

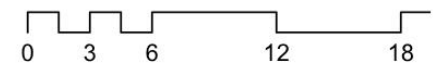
BY

DESIGN

ourR-HOME

Topography

NOAA Hillshade DEM



Topography and sea level rise @ 6'

NOAA Hillshade DEM & estimated reach of 6' of sea level rise.

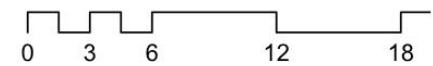
 SEA LEVEL RISE @ 6'



CalEnviroscreen: overall score

CalEnviroscreen 3.0

 SEA LEVEL RISE @ 6'



Where are the EPA listed brownfield sites inundated in 6' of sea level rise?

This map identifies low income (<200% federal poverty level, 30% threshold) communities at risk of gentrification, that also lie within half a mile of the 6' sea level rise line.

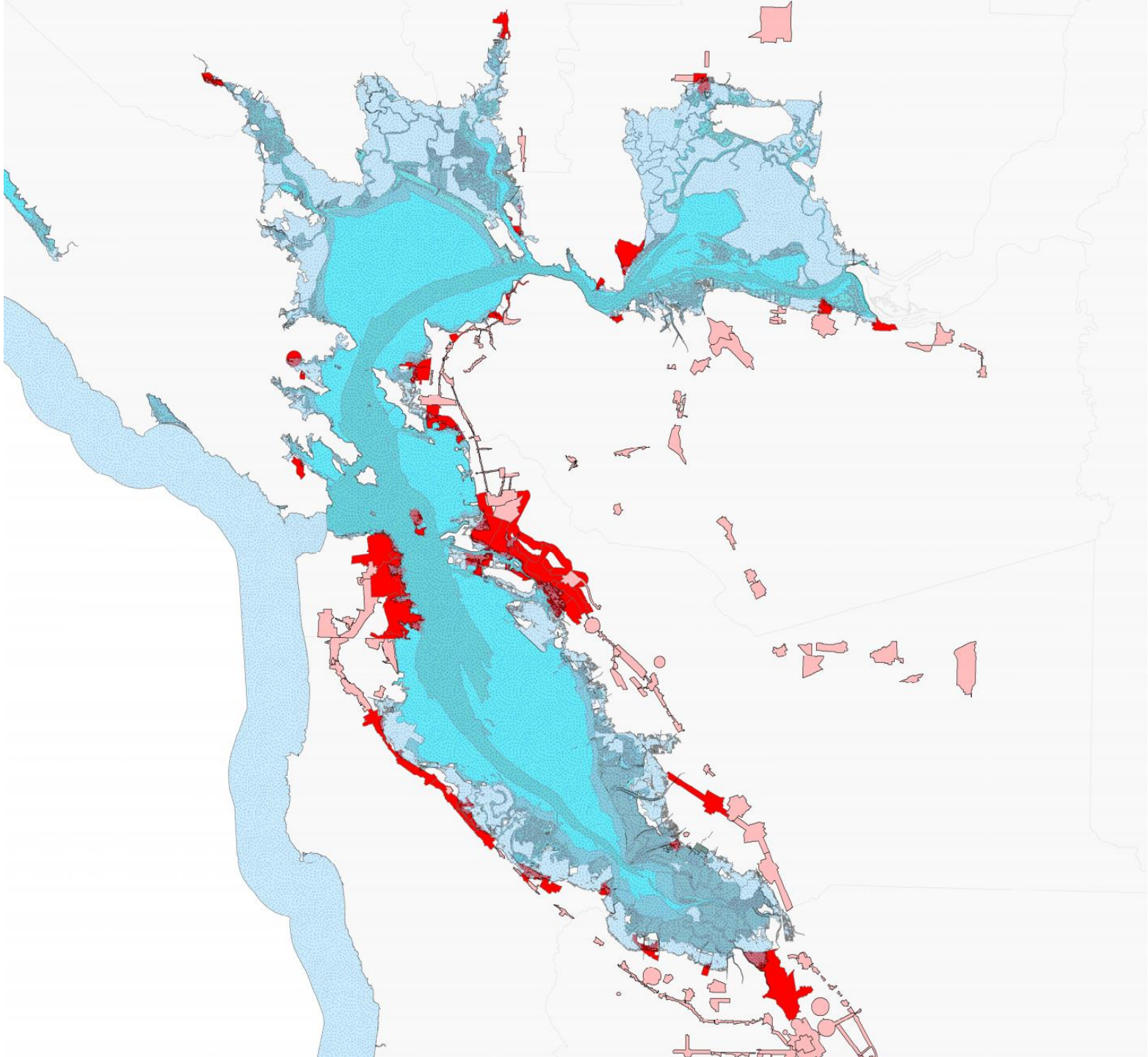
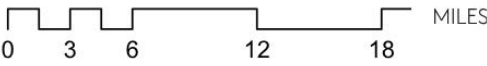
-  EPA LISTED BROWNFIELD SITE
-  SEA LEVEL RISE @ 6'



Where do Priority Development Areas overlap with sea level rise?

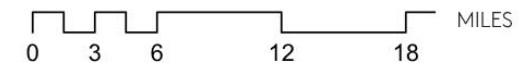
This map identifies where the Association of Bay Area Governments' Priority Development Areas intersect with a sea level rise height of 6'.

- SEA LEVEL RISE @ 6'
- PRIORITY DEVELOPMENT AREAS INTERSECTING WITH SEA LEVEL RISE
- PRIORITY DEVELOPMENT AREAS



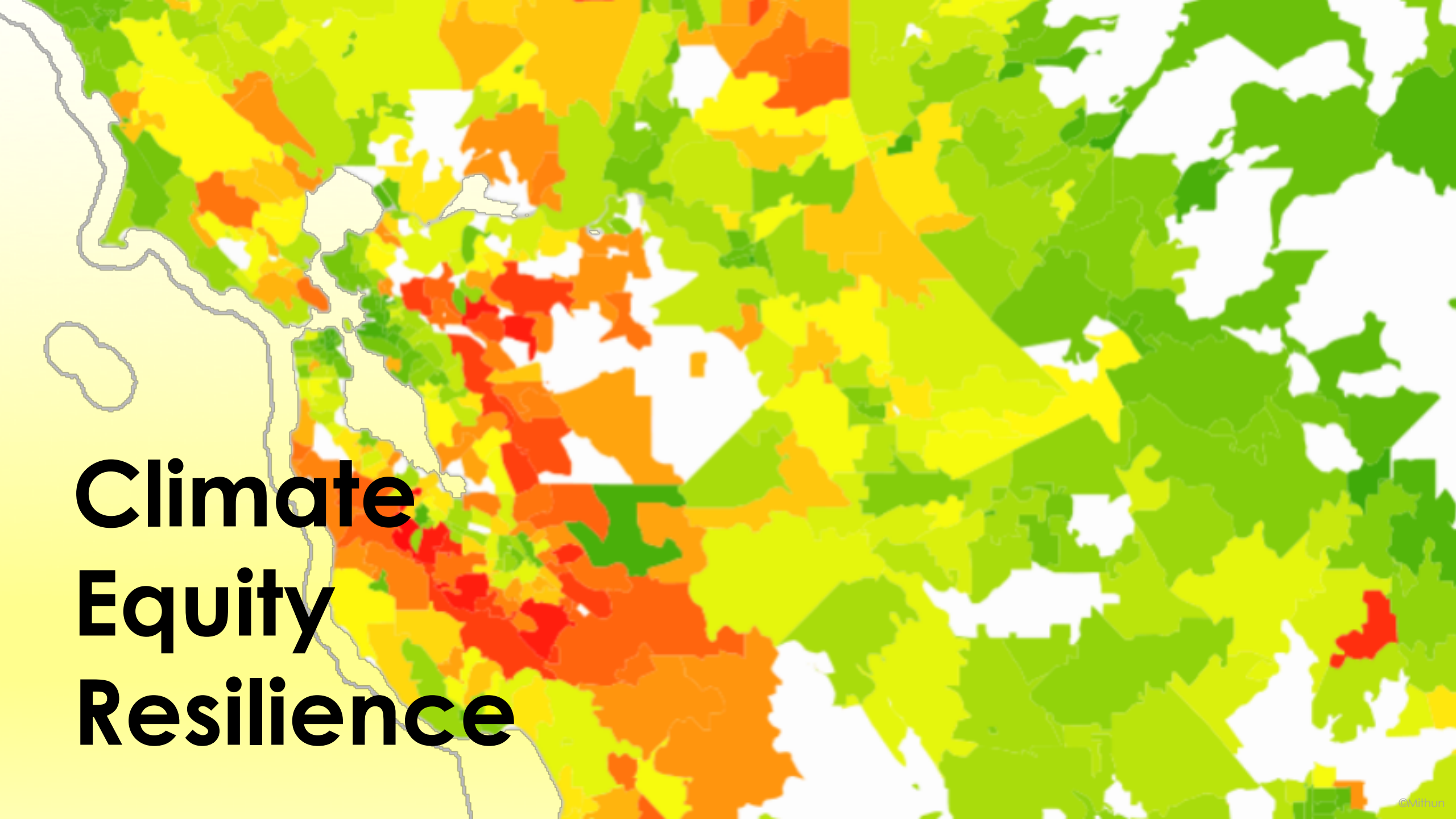
Where do Priority Conservation Areas overlap with sea level rise?

This map identifies where the Association of Bay Area Governments' Priority Conservation Areas intersect with a sea level rise height of 6'.



Priority Resilience Areas...





Climate Equity Resilience

MITHUN

▲ The Home Team

RESILIENT

BAY AREA CHALLENGE

BY

DESIGN

our **R**-HOME

North Richmond Priority Resilience Area





Adapt in Place

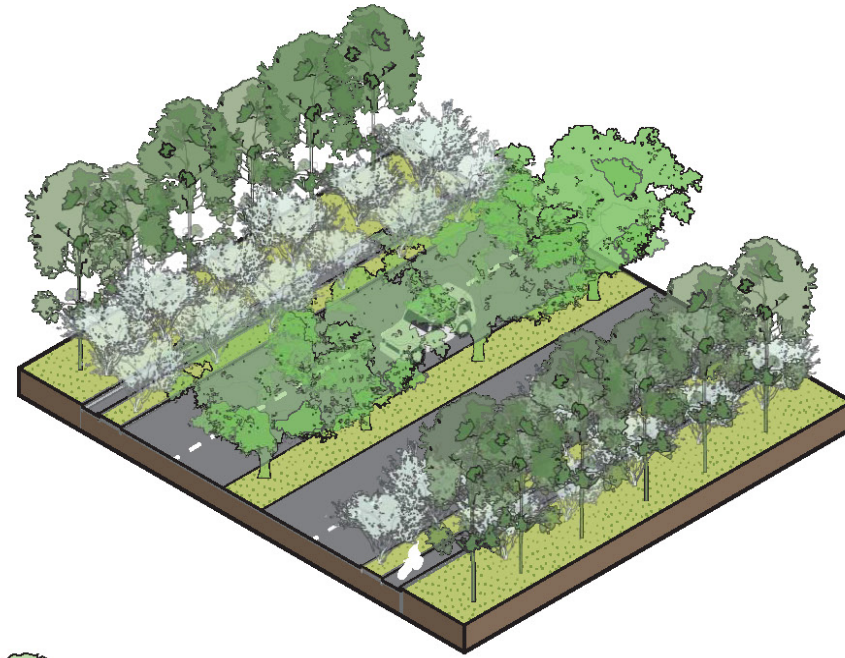
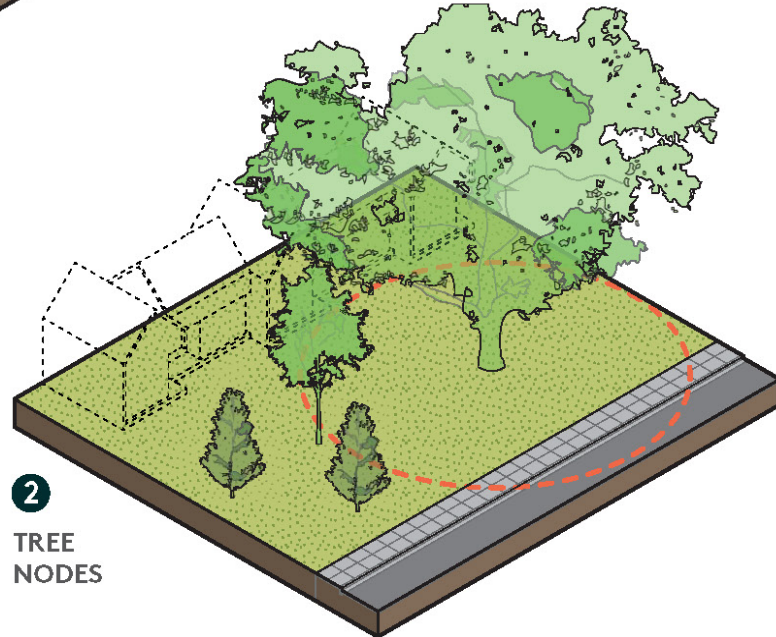




North Richmond has 6x more diesel pollution (PM) per square mile than the rest of Contra Costa County, 8x the Bay Area average, and 50x more than the California average.

- NEIGHBORHOOD GREENWAY
- AIR QUALITY PARK
- TREE NODES





KEY SPECIES:



MONTERREY CYPRESS



ARROYO WILLOW



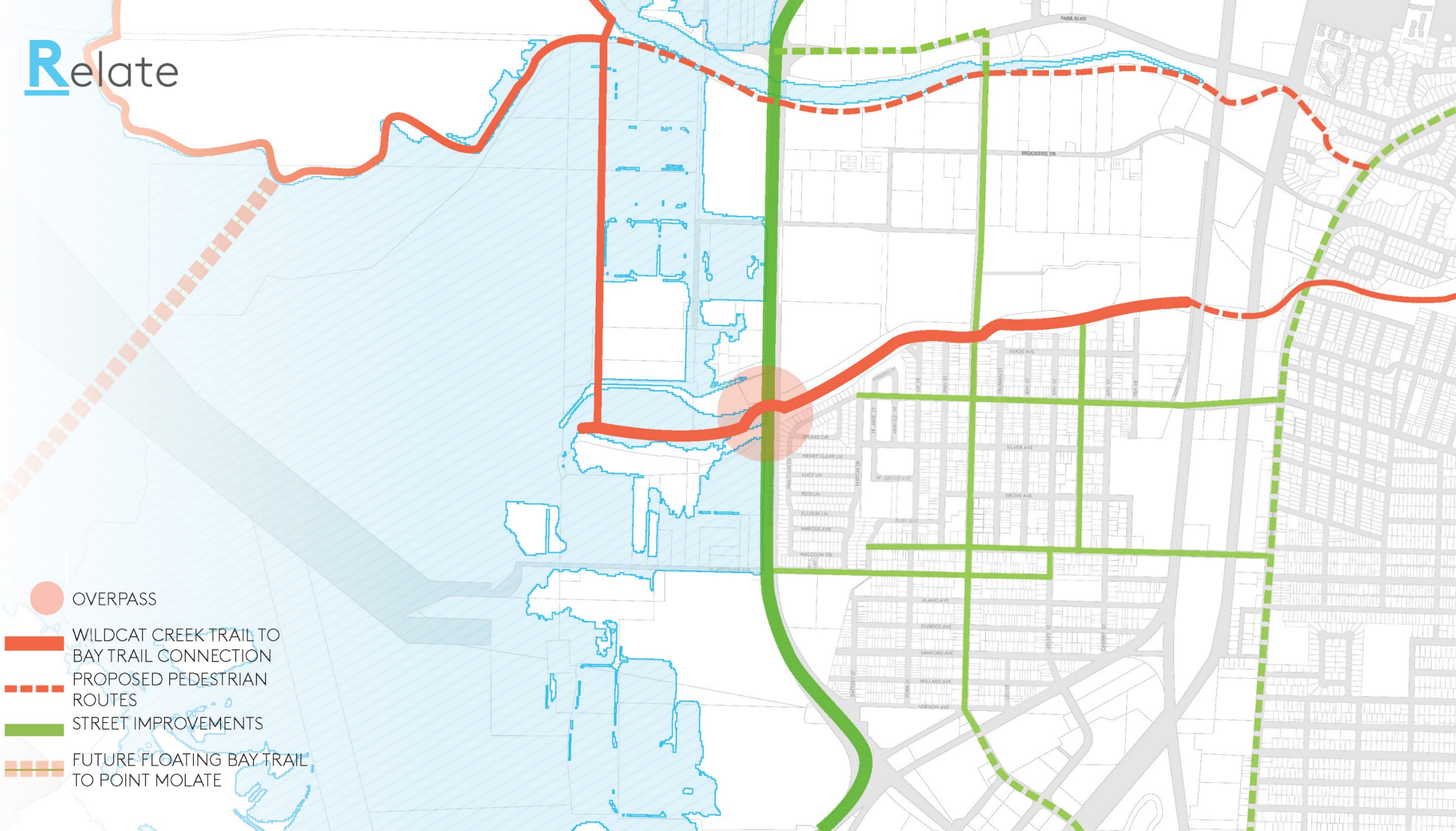
COAST LIVE OAK



VALLEY OAK

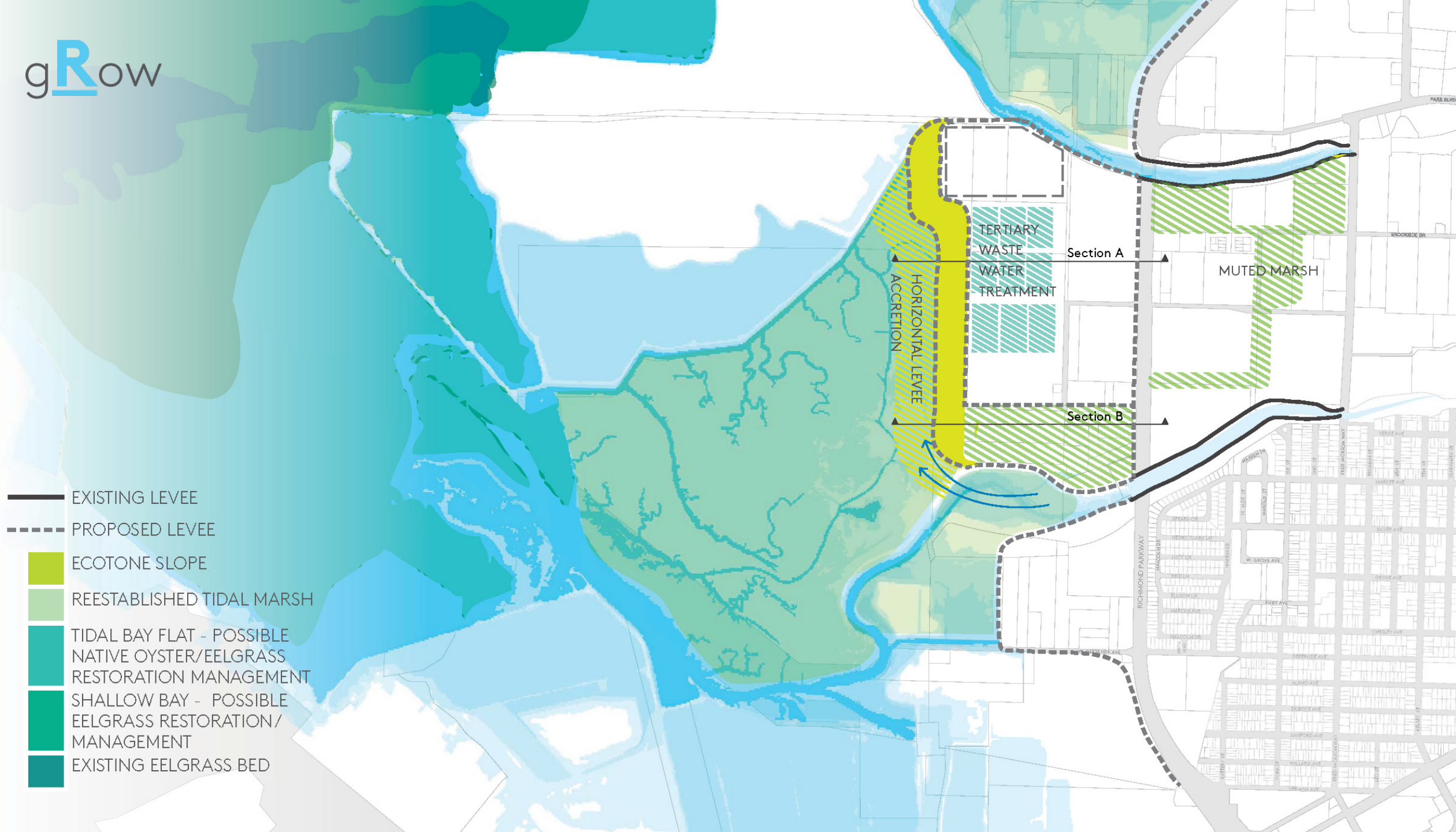












- EXISTING LEVEE
- - - PROPOSED LEVEE
- ▨ ECOTONE SLOPE
- REESTABLISHED TIDAL MARSH
- TIDAL BAY FLAT - POSSIBLE NATIVE OYSTER/EELGRASS RESTORATION MANAGEMENT
- SHALLOW BAY - POSSIBLE EELGRASS RESTORATION/MANAGEMENT
- EXISTING EELGRASS BED

HIDDEN HABITATS:



CLAPPER RAIL



SALT HARVEST MOUSE



EEL GRASS



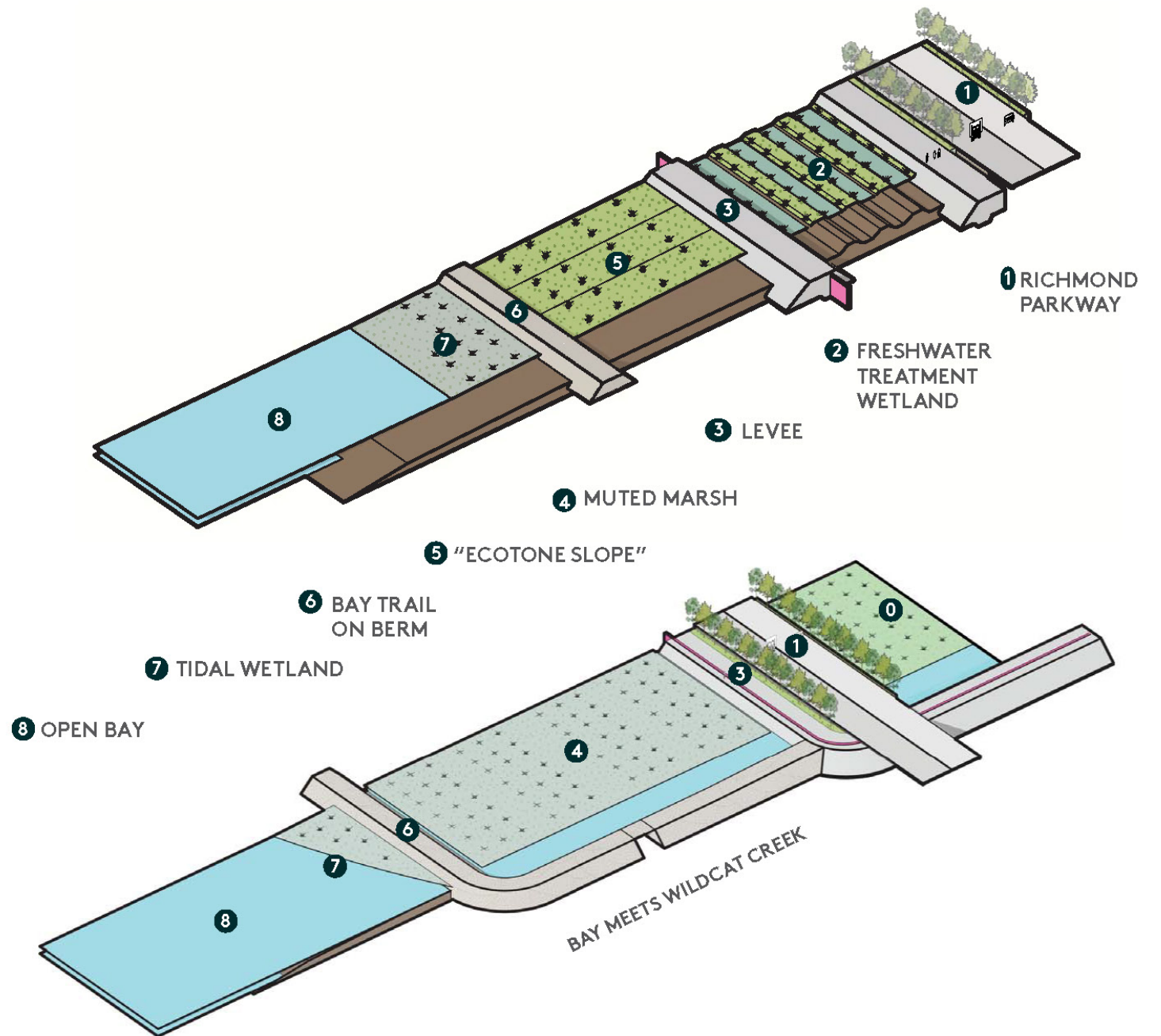
PACIFIC HERRING



MIGRATORY BIRDS

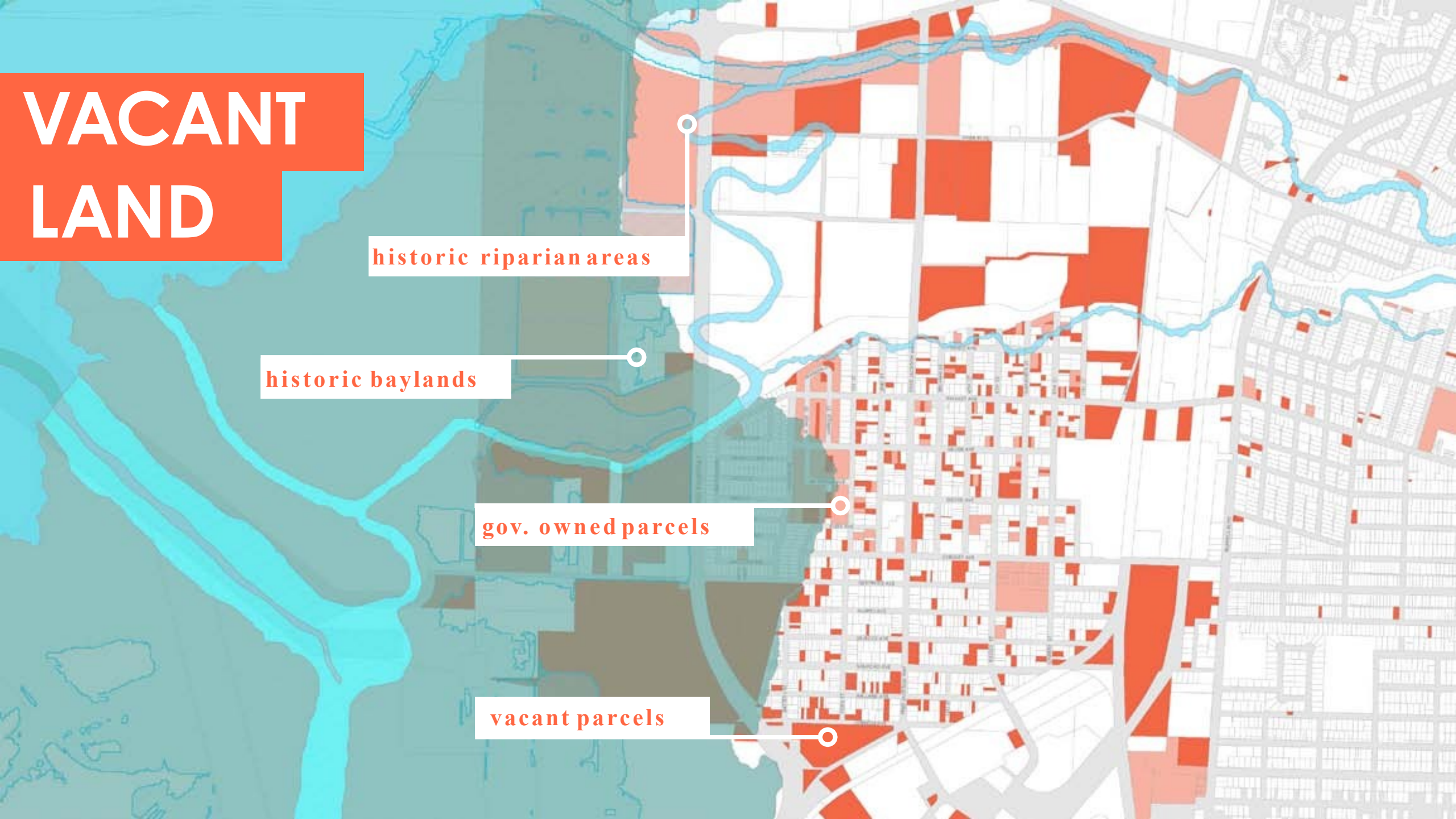


OYSTERS









VACANT LAND

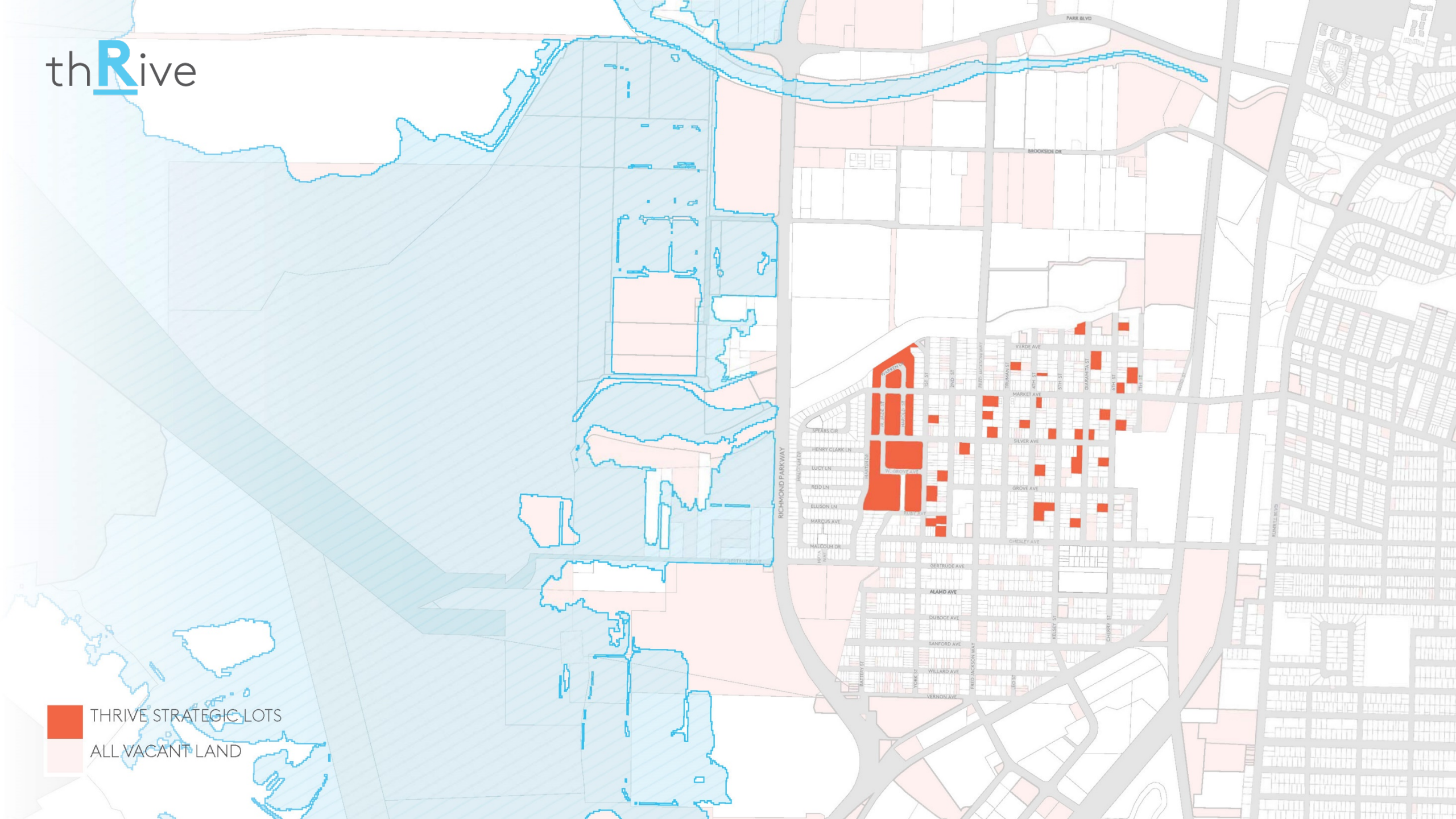
historic riparian areas

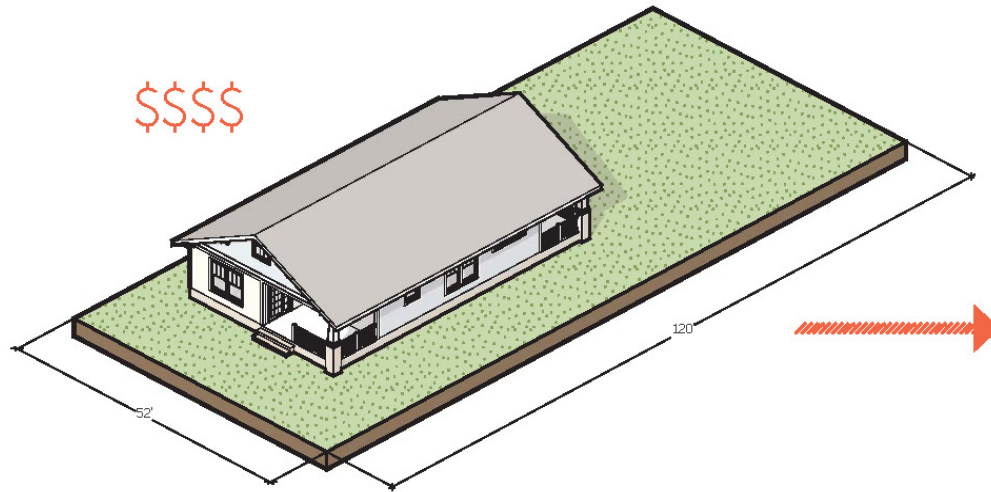
historic baylands

gov. owned parcels

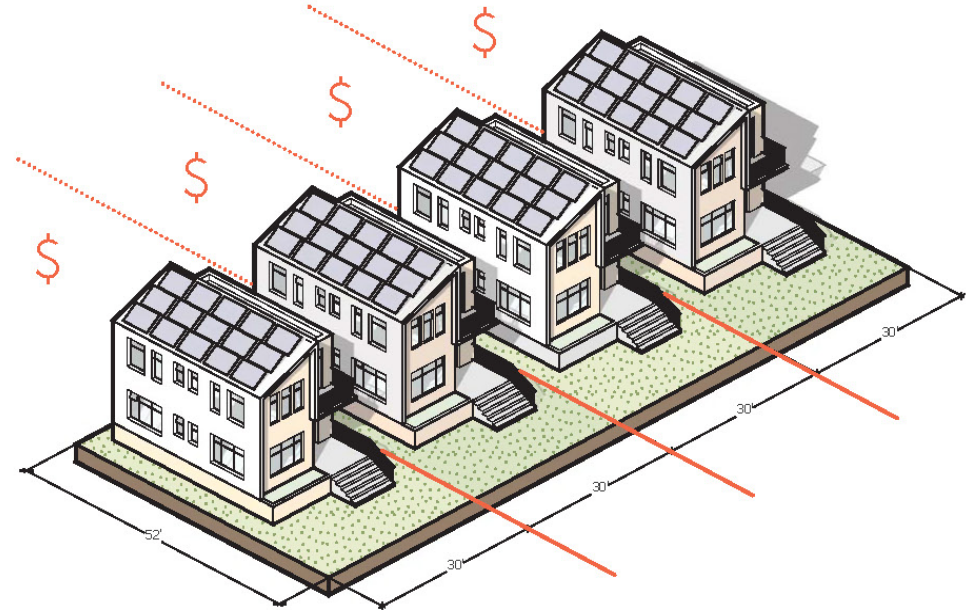
vacant parcels

THRIVE STRATEGIC LOTS
ALL VACANT LAND

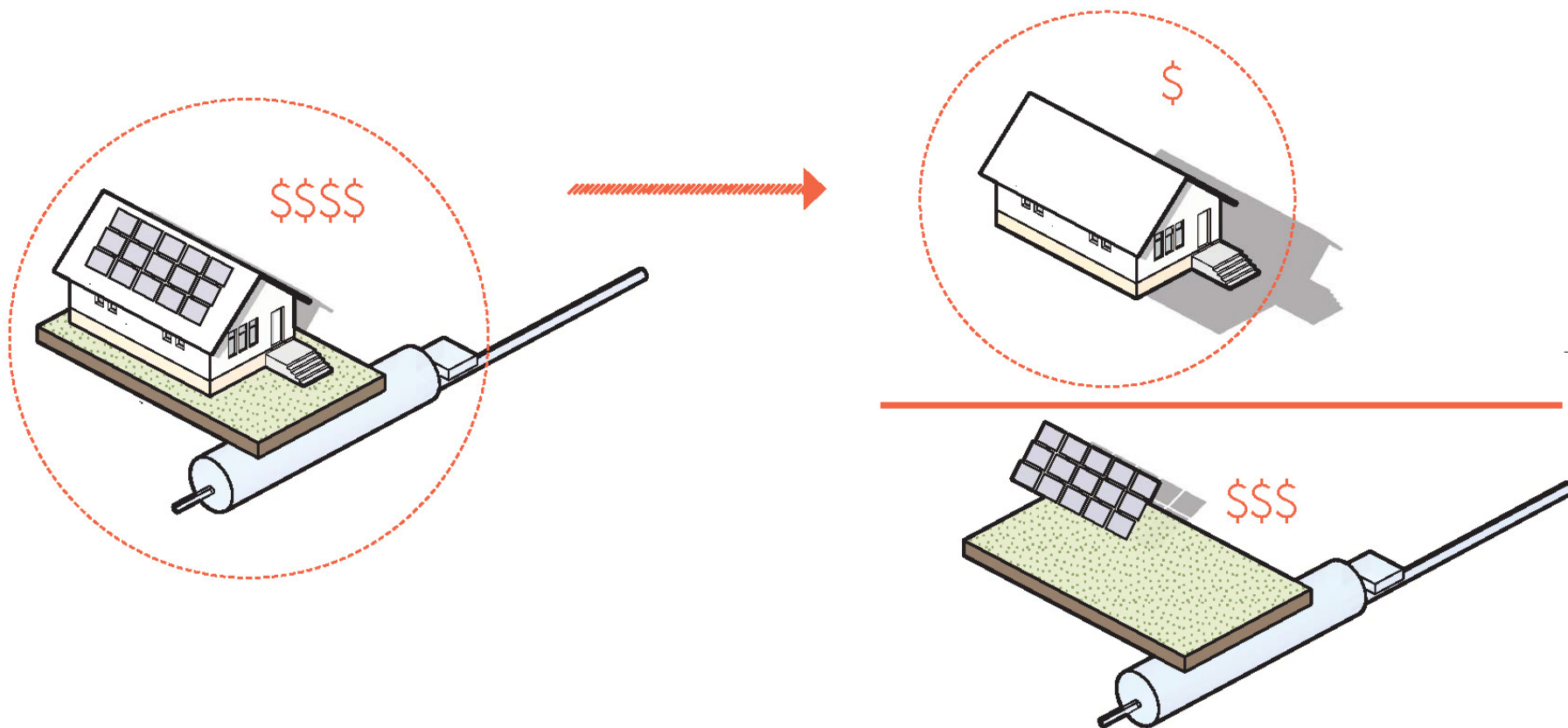




Existing Lot = 6240 SF
Typical Single Family Home



Split Lot = 6240 SF / 4
Four Small Lots @ 1560 each
1250 SF Townhouses (2 story)



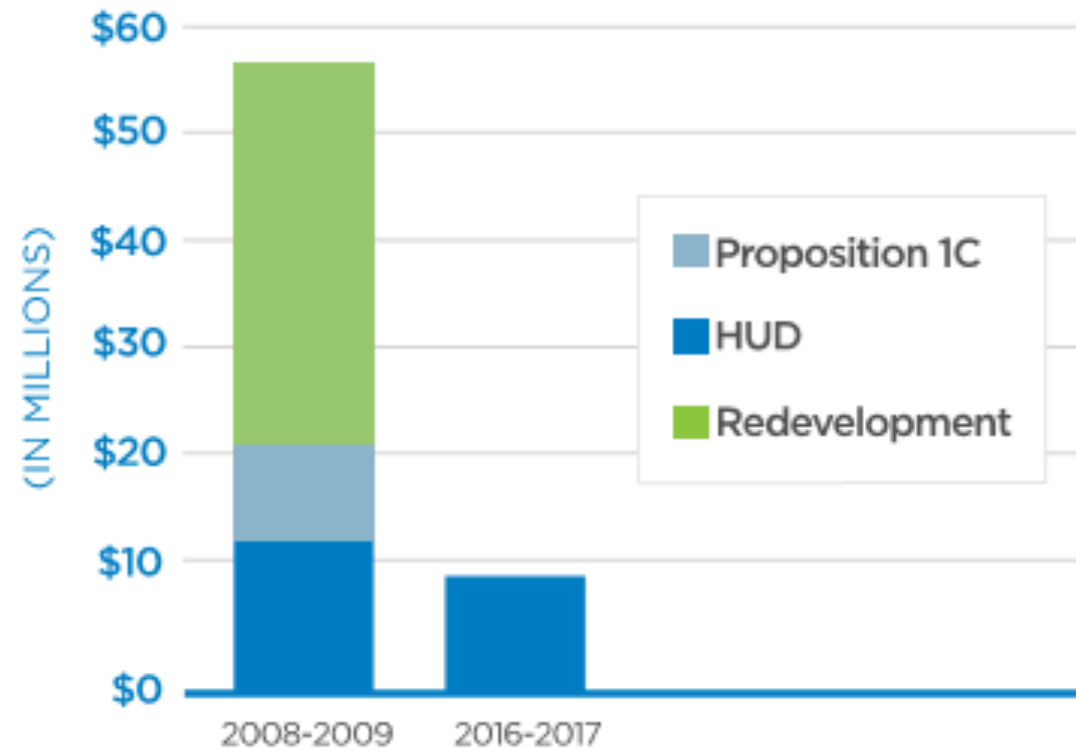
Existing Condition
Home Cost includes land
and utilities

Community Land Trust
Family owns the home
Trust owns the land and utilities





How to fill the gap?



CONTRA COSTA COUNTY LOST 83% OF STATE AND FEDERAL FUNDING FOR HOUSING PRODUCTION AND PRESERVATION BETWEEN 2008-09 AND 2016-17

- Resilience funds for major infrastructure
- Green mitigation funds for community investment
- Promote ownership
- Local hire to spur reinvestment



For every \$1. spent on
hazard mitigation \$6. is
saved post-disaster.

National Institute of Building Sciences, 2017

Return to Community—





Climate Equity Resilience

MITHŪN



For more information:

Sandy Mendler, AIA, APA

Mithun

sandym@mithun.com

https://www.youtube.com/watch?v=YHw80_4fIBg

Funding—

- Community Based
 - Social Impact Bond
 - Community Land Trust
- Community Facilities District
 - Opportunity Zone SIB
- Green Mitigation Fund
 - Republic Services / Chevron
 - CAPP Program
- Grants
 - Grants Measure AA
 - Prop 1
 - Cap and Trade (AHSC, TCC)

