



**Join our LWVC
Climate Effort!**

In Order of Appearance

Diz Swift

April Oquenda

Eric Arens

Mary O'Kicki

Candace Hyde-Wang

Gloria Chun Hoo

Kathy Berlin

The workshop will begin at 5:00 PM



LWVC Climate Change Workshop

Our Teams

- Climate Justice
- Sea Level Rise
- Wildfires
- Food, Soils, and Agriculture
- Building Electrification
- Electric Vehicles
- Climate Action Plans

What Your Local League Can Do



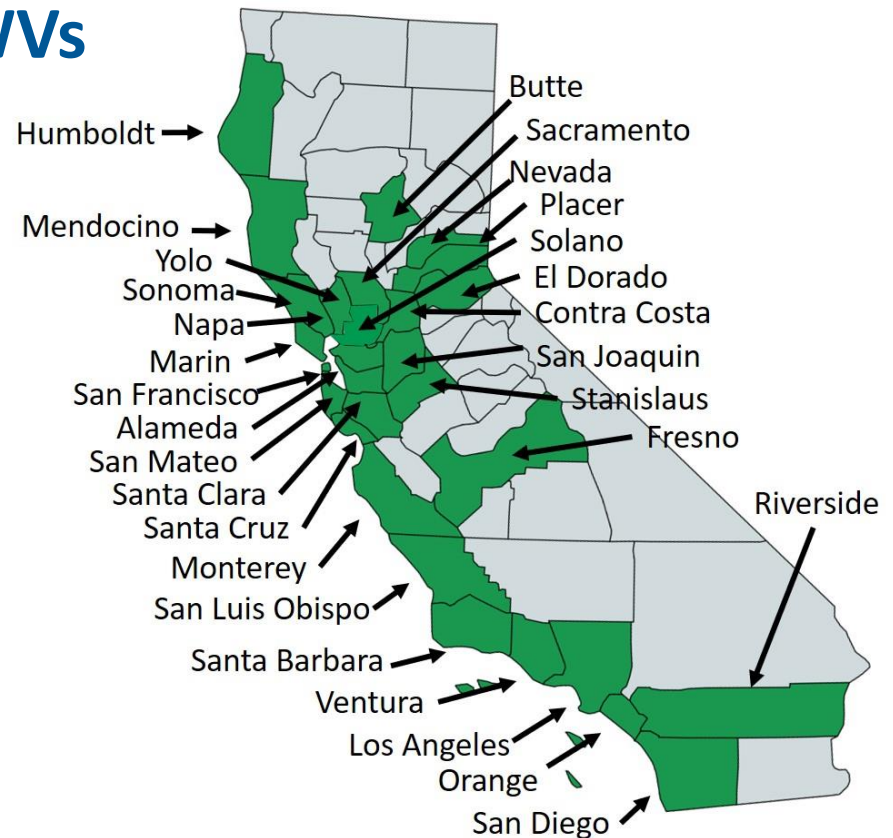
Climate Change Task Force

~300 members, 60 Local LWVs

State-wide teams

- ✓ Building Electrification
- ✓ Sea Level Rise
- ✓ Food, Soils and Agriculture
- ✓ Municipal Climate Action Plans
- ✓ Wildfires
- ✓ Water

CCTF CA Counties





National Teams

- [illegible]



Climate Justice

April Oquenda

Climate Change and Equity



Adverse impacts of a warming climate are not felt equitably among people.

Disadvantaged communities are often those:

- Housed in low-lying areas vulnerable to sea level rise and flooding
- Without air conditioning struggling with high temperatures,
- More at risk from air pollution.

Our Climate Justice team is working to assure these disparities are considered in climate policy as it is developed.



Climate vs. Environmental Justice

Both acknowledge that those hit hardest are vulnerable communities

Environmental Justice Focuses on preventing and repairing negative environmental effects in marginalized communities

Climate Justice

- Seeks to mitigate these disproportionate adverse impacts by focusing on dismantling the barriers that create inequities on a global scale
- Is focused on the future in an ecological sense
- Is concerned with building resilience to prepare for the inevitable outcomes of climate change
- Recognizes the interdependence of all living systems on our planet



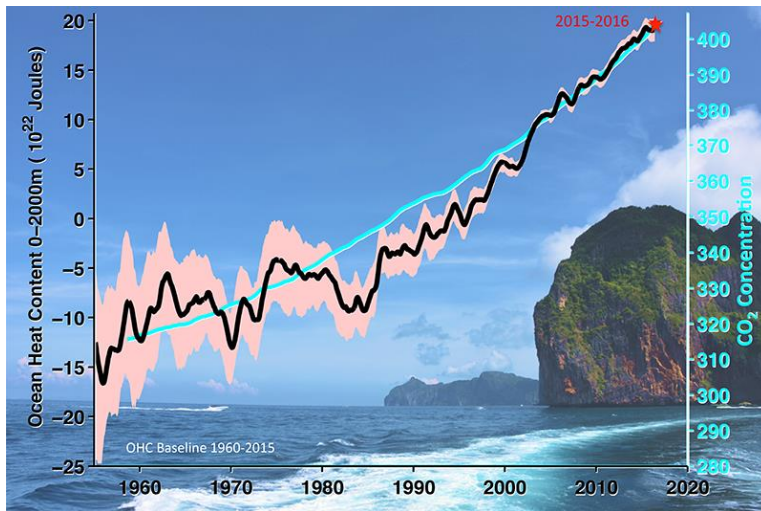
Sea Level Rise

Diz Swift

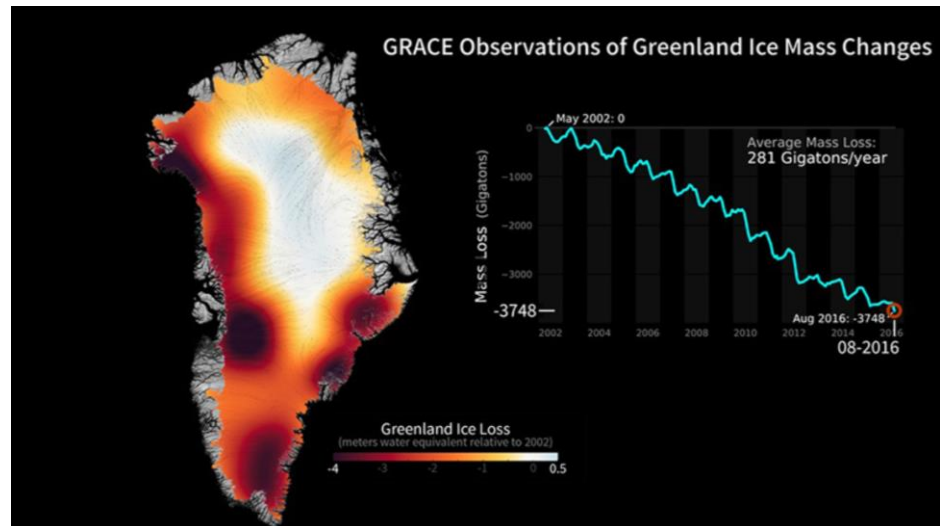
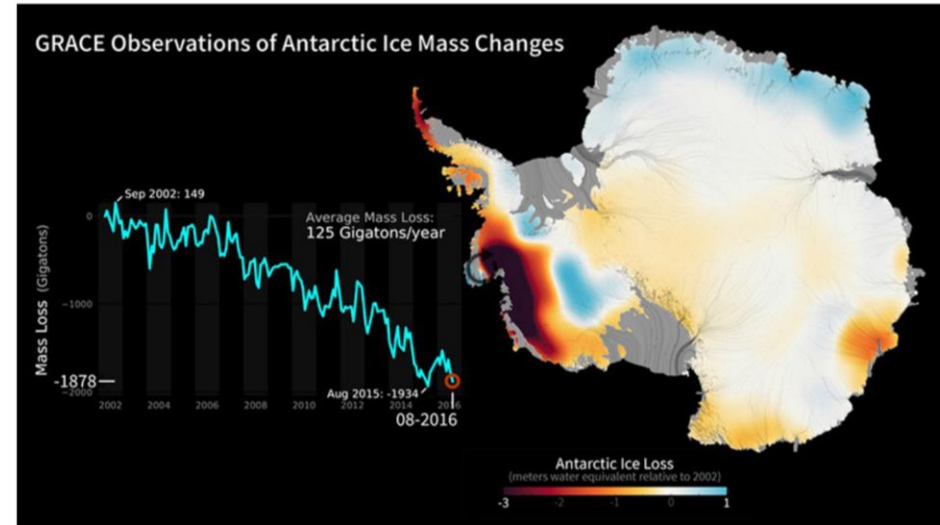


Sea Level Rise is Just Beginning

Oceans are Warming



Ice Sheets Are Melting





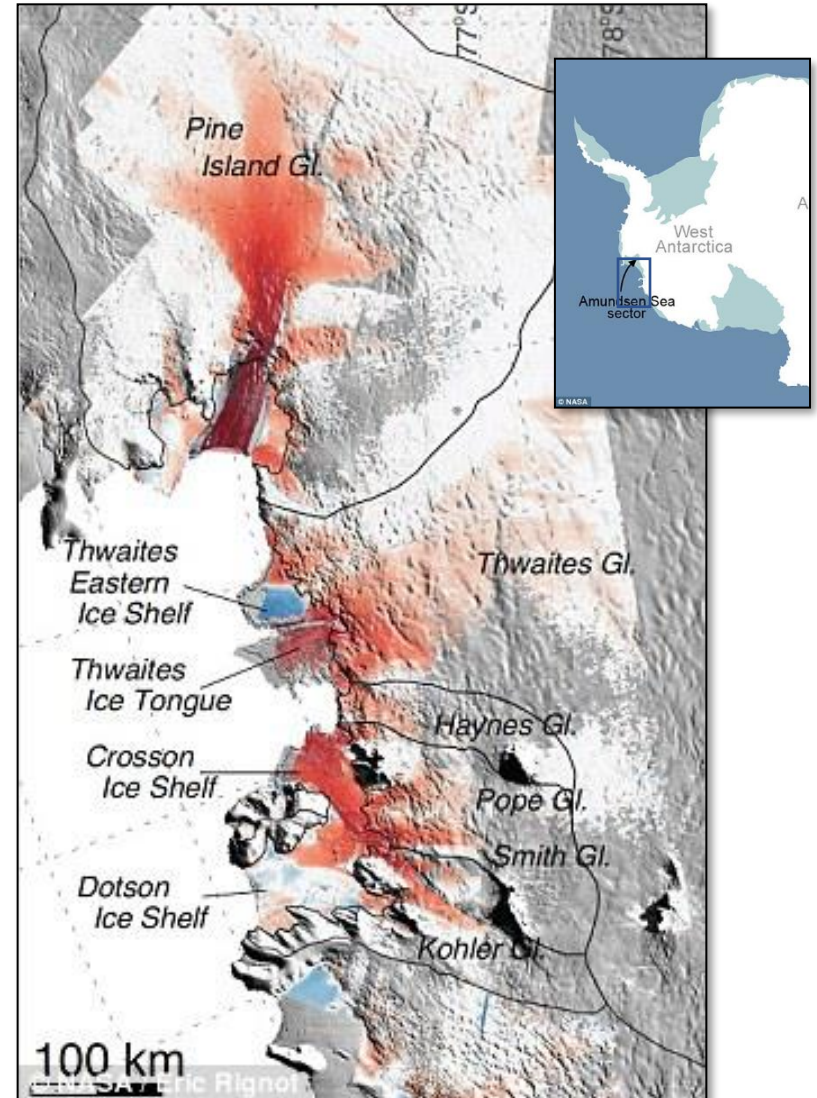
The Serious Melting

From 1992 to 2011, the land glaciers have come “ungrounded” and are now “unstoppable”.

These glaciers alone could raise global sea level by 4 feet.

We expect 7 to 10 feet of sea level rise by 2100

Rignot et al, 2014





Areas Threatened





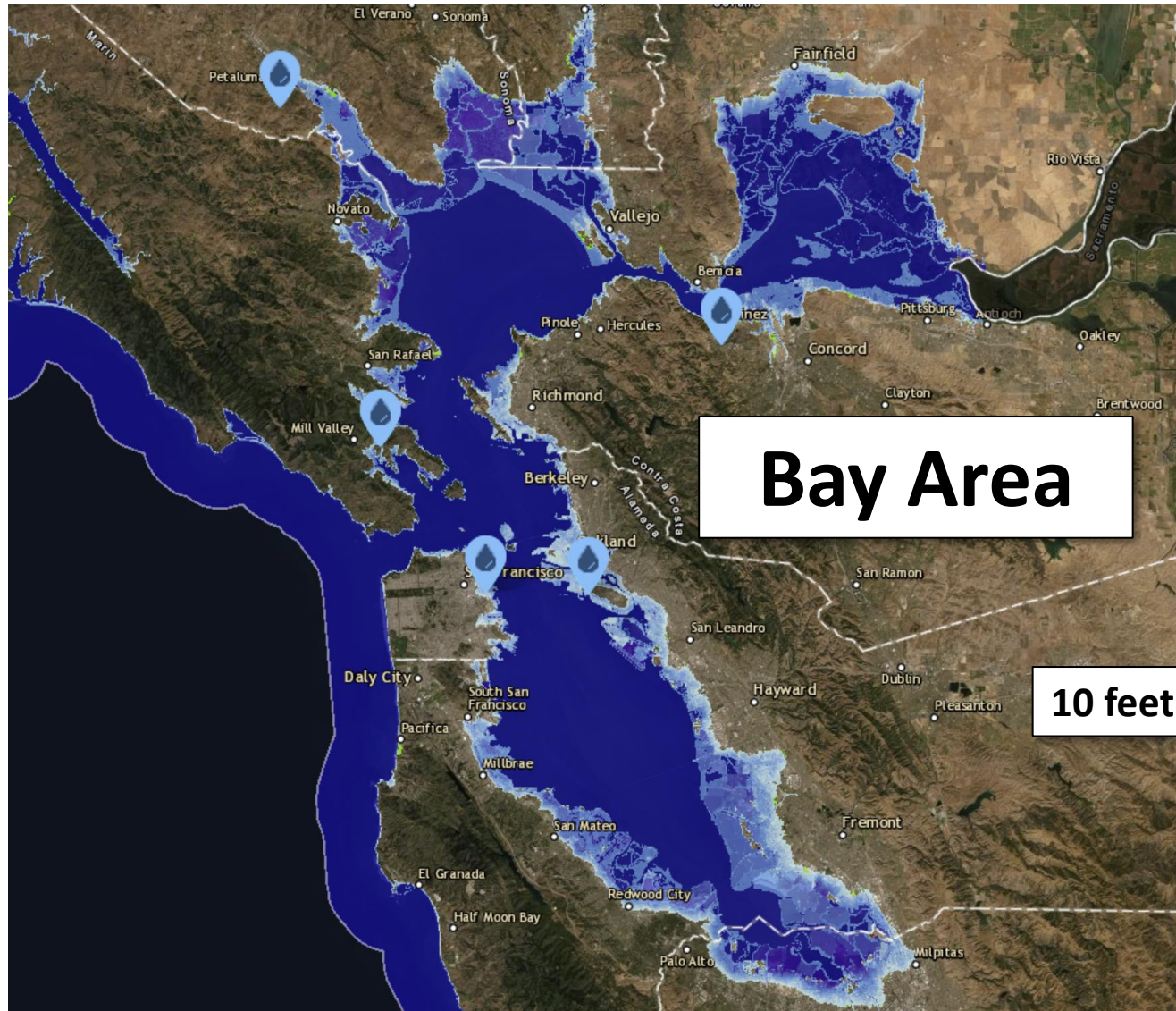
Areas Threatened

Long Beach to Huntington Beach





Areas Threatened





Legislation

LWVC Supports

SB 67 (Petrie-Norris) *Failed in Assembly*

Requires state to consider current and future impacts of sea level rise in planning and investing in state infrastructure.

Coordinates a multi-agency effort to develop an infrastructure resiliency plan.

Establishes a standard methodology for economic analyses of sea level rise risks and responses to support local government planning.

AB 1445 (Levine) *Failed in Assembly*

Requires consideration of emergency evacuation routes, wildfire risk, sea level rise, and other climate impacts when developing regional housing plans.



Wildfires

Eric Arens



Wildfire Team

Members Include Leagues from:

- Santa Clara County
- Alameda County
- San Mateo County
- Placer County
- Sonoma/Toulumne Counties
- Santa Barbara County



Why Focus on Wildfires?

- Wildfires cause enormous personal and property loss
- Devastating for air quality and resulting health effects
- Fires are getting more frequent and getting worse

Fires are in a vicious cycle with climate change

- Wildfire risk increases with climate change
- Wildfires contribute to climate change



2020 Wildfires

Buildings destroyed: 10,488

Total fires: 9,639

Total cost: \$12 billion

Total area: 4,397,809 acres

6871 square miles





Who is Responsible?

Private

Landscaping
Resilience

Structure
Resilience

Adequate Fire
Insurance

Public

Dependency on
Regional Grid

Improve Public
Infrastructure

Adequate Fire
Fighting Capability

Public/Private

Greenbelt
Resilience

Hardening the
Grid

Managing
Blackouts

Improve Land
Development



Private Sector & Property Owners



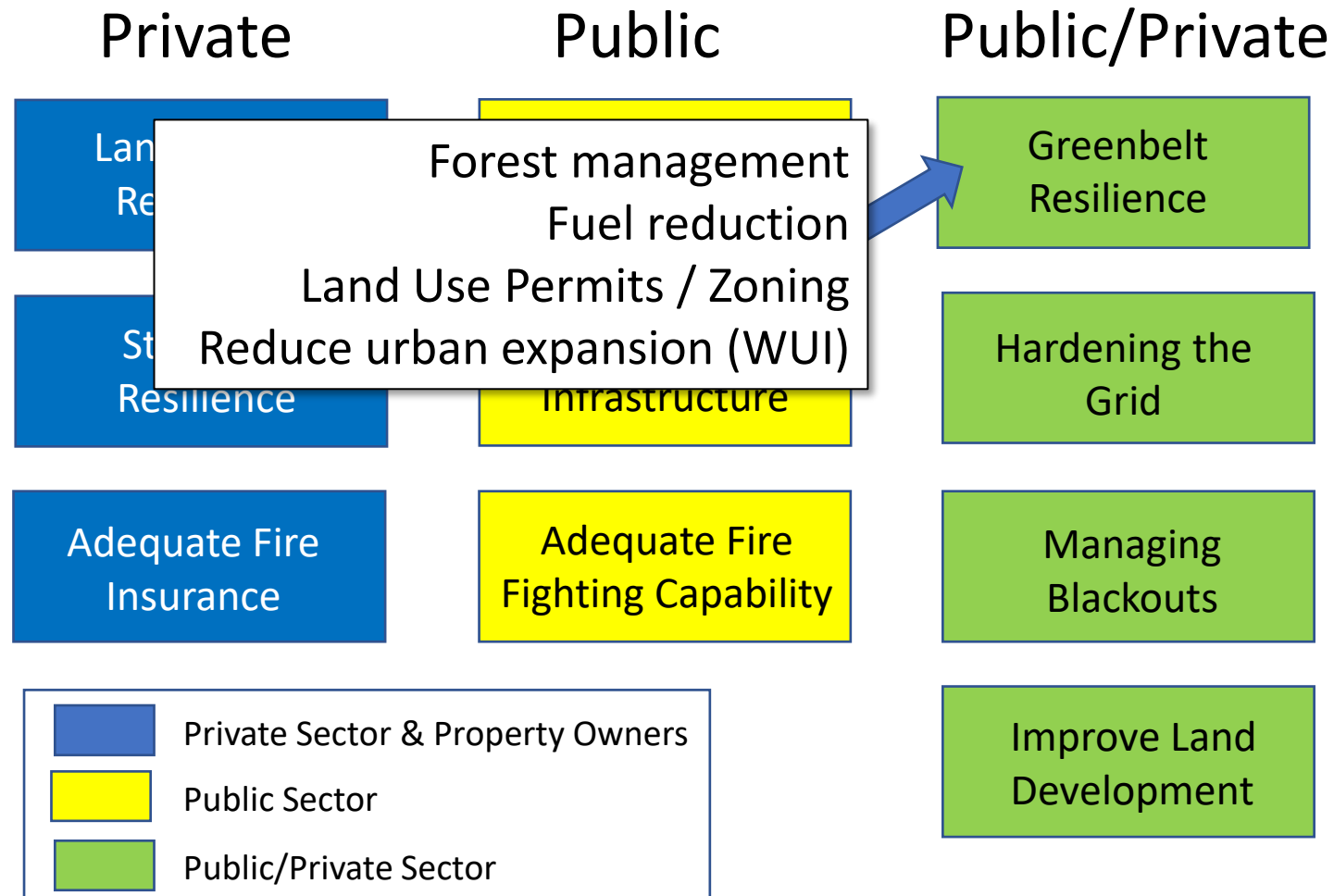
Public Sector



Public/Private Sector

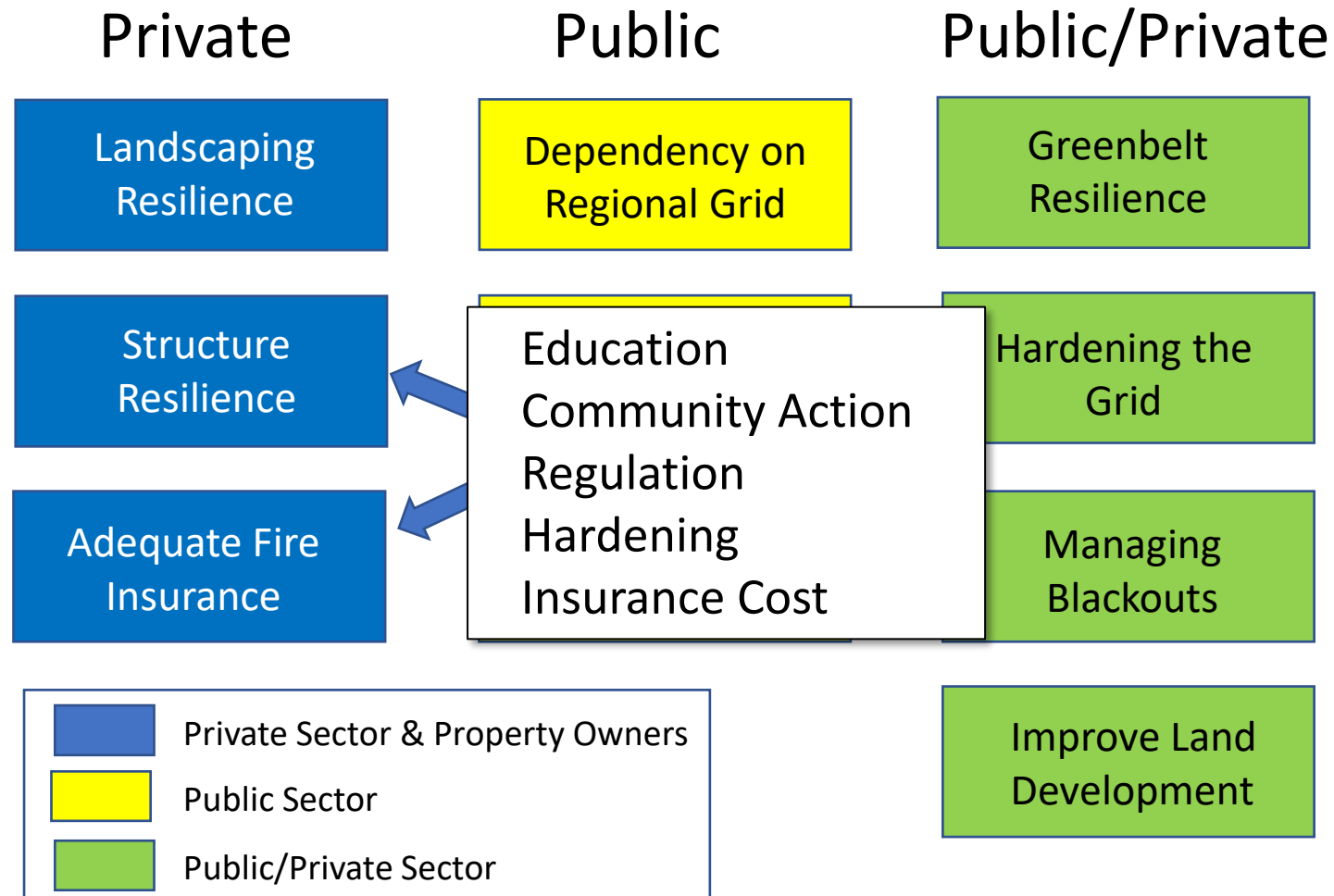


What are some solutions?



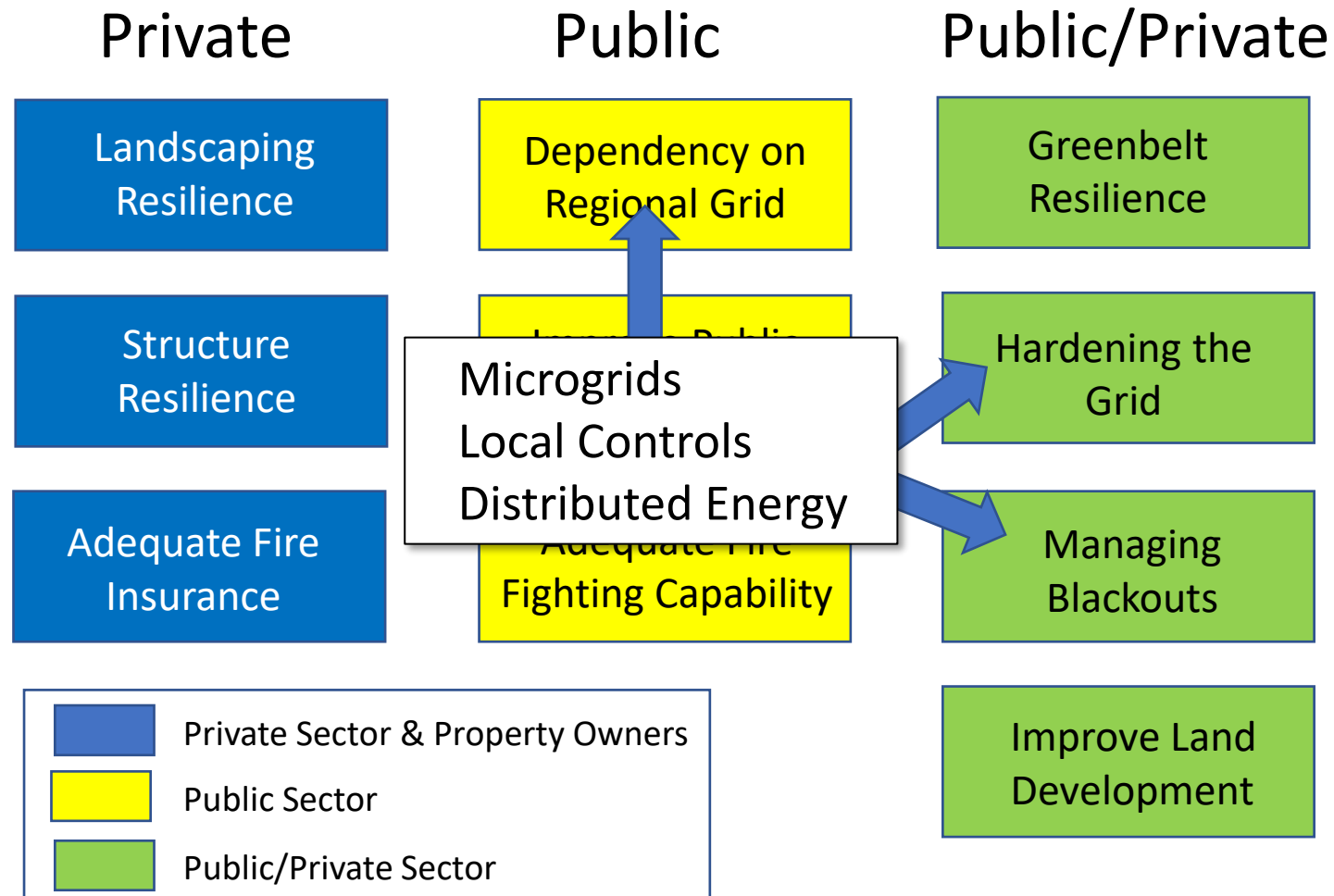


What are some solutions?





What are some solutions?





Key Themes of 2021 CA Bills

- Who pays? Bonds? Taxes?
- More housing/development vs wildfire mitigation?
- What can local communities do to mitigate wildfires?
- Forest management needed for protecting people and property?
- Viability and affordability of insurance in wildfire prone areas.

Federal bi-partisan legislation is proposed in the current Congress



Legislation

LWVC Supports

AB 1445 (Levine) *Failed in Assembly*

Requires consideration of emergency evacuation routes, wildfire risk, sea level rise, and other climate impacts when developing regional housing plans.



Food, Soils and Agriculture

Mary O'Kicki



Food, Soil and Ag Focus

Goal

- Reduce greenhouse gas (GHG) emissions
- Drawdown carbon from the atmosphere

Actions

- Change how we distribute and dispose of food
- Make heart-healthy (and planet-healthy) food choices
- Improve the health of our soils
- Modify our agricultural practices

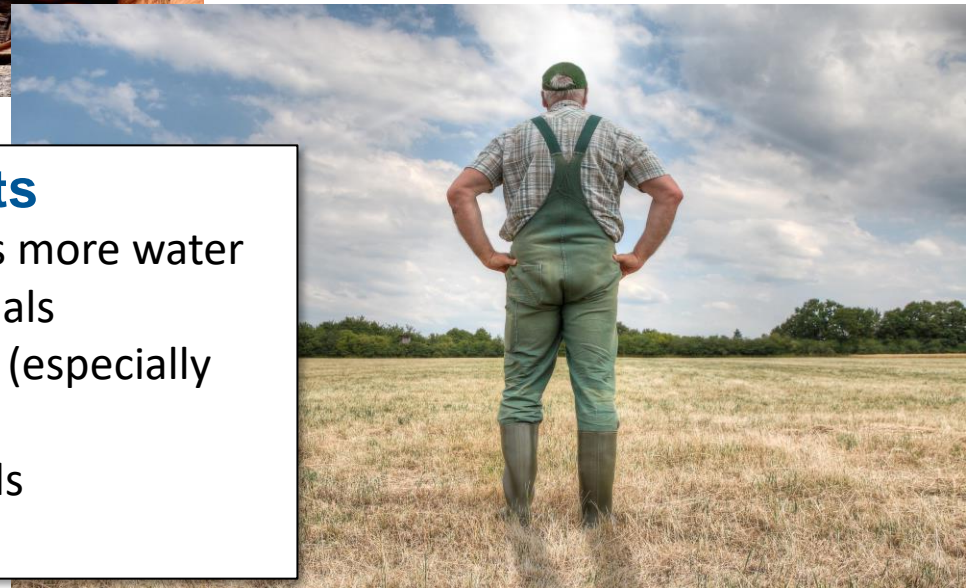


Important to California

- > 25 percent of California's lands (farms and ranches)
- \$50 billion/year industry
- > 50% of fruits, nuts and vegetables consumed in the US

Climate Change Impacts

- Higher temperature means more water needed for crops and animals
- Reduced winter chill hours (especially stone fruit)
- Increase in pests and weeds
- Reduced crop yields





CA Climate Smart Agriculture

Launched in 2014

Technical and financial assistance to ag industry

- Adopt practices to reduce GHGs
- Increase carbon sinks
- Preserve agricultural lands



Healthy Soils → Healthy Ecosystems

Healthy Soils Initiative

- Increase water retention
- Improve biological diversity and wildlife habitat
- Improve plant health and yields
- **Sequester carbon and reduce GHGs**





Natural and Working Lands

*Natural and working lands can be resilient carbon sinks
and improve air and water quality
(>90% of land)*

CA Natural and Working Lands Climate Change Implementation Plan

- Climate Smart ag programs
- Forest management/wildfire
- Habitat restoration of oak savannahs, sea grasses, wetlands....



FOOD

Food System (production through transportation)
accounts for 25-35% of worldwide GHG emissions

About 1/3 of world's food is wasted

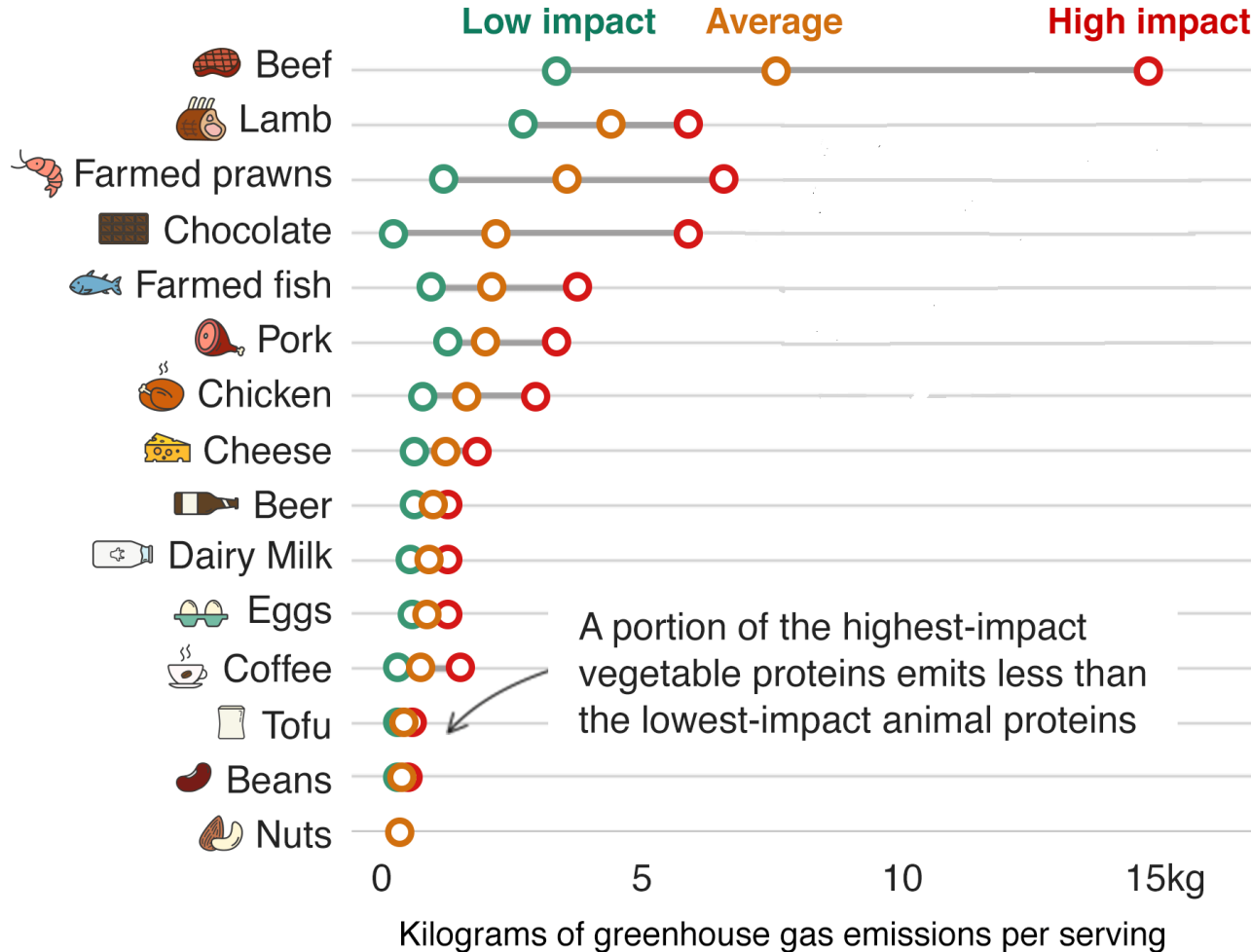
Food Waste → Methane (CH₄)

6 million tons of waste: 18% of material in CA landfills





Carbon Footprint of Food





League Actions

Food

LWV San Diego "Ending Hunger Through Food Rescue"

LWV Palo Alto "Climate Crisis; Call To Individual Action"

40% of Bay Area residents' carbon footprint is food

LWV Mendocino County "Victory" Gardens



League Actions

Soils

LWV San Jose Coyote Valley Open Space Preserve

- Supported efforts to fund (\$50m)
- Ecosystem management for flood control, biodiversity

Agriculture

Santa Clara Co. Leagues Santa Clara Valley Agricultural Plan

- Stop loss of ag to development
- Increase local food economy

LWVC FSA Expert Panel Discussion

- Carbon sequestration potential of agriculture



Legislation

LWVC Supports

SB 27 (Skinner) *Passed Senate – in Assembly*

State must establish carbon sequestration goals for natural and working lands

Create a registry of carbon sequestration projects

AB 252 (Rivas and Salas) *Passed Assembly – in Senate*

Assembly sustainable Groundwater Management Act (SGMA) requires some land be taken out of irrigation for groundwater recharge.

Bill creates a pilot program incentivize farmers to repurpose lands for multi-benefits that have less water-intensive uses.



Building Electrification

Rapidly reduce fossil fuel use

Candace Hyde-Wang

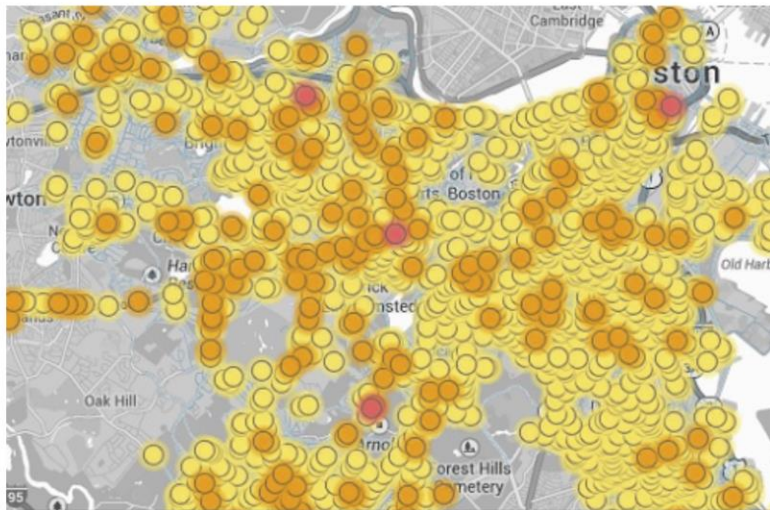


Why Electrify?

Natural gas is mostly **methane** which has a global warming potential **20 to 80 times higher than carbon dioxide** (*varies depending on time span*)

Methane is leaking – from gas extraction, storage, and distribution

Boston: Older pipes, more leaks



Indianapolis: Newer pipes, fewer leaks

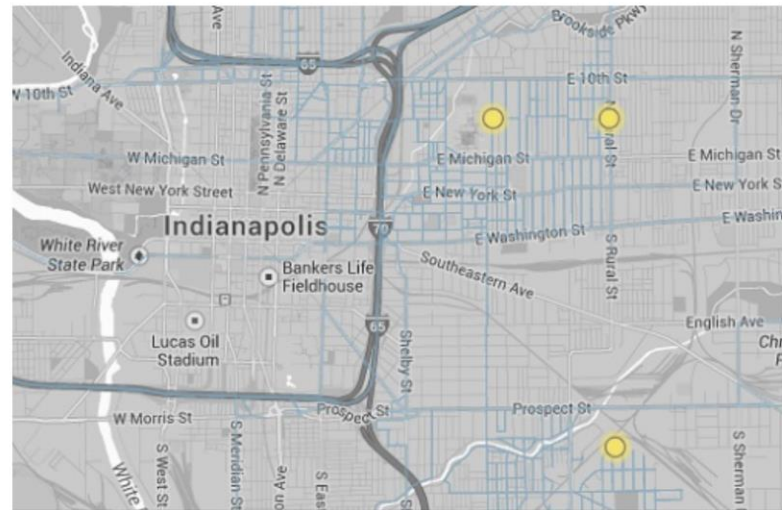
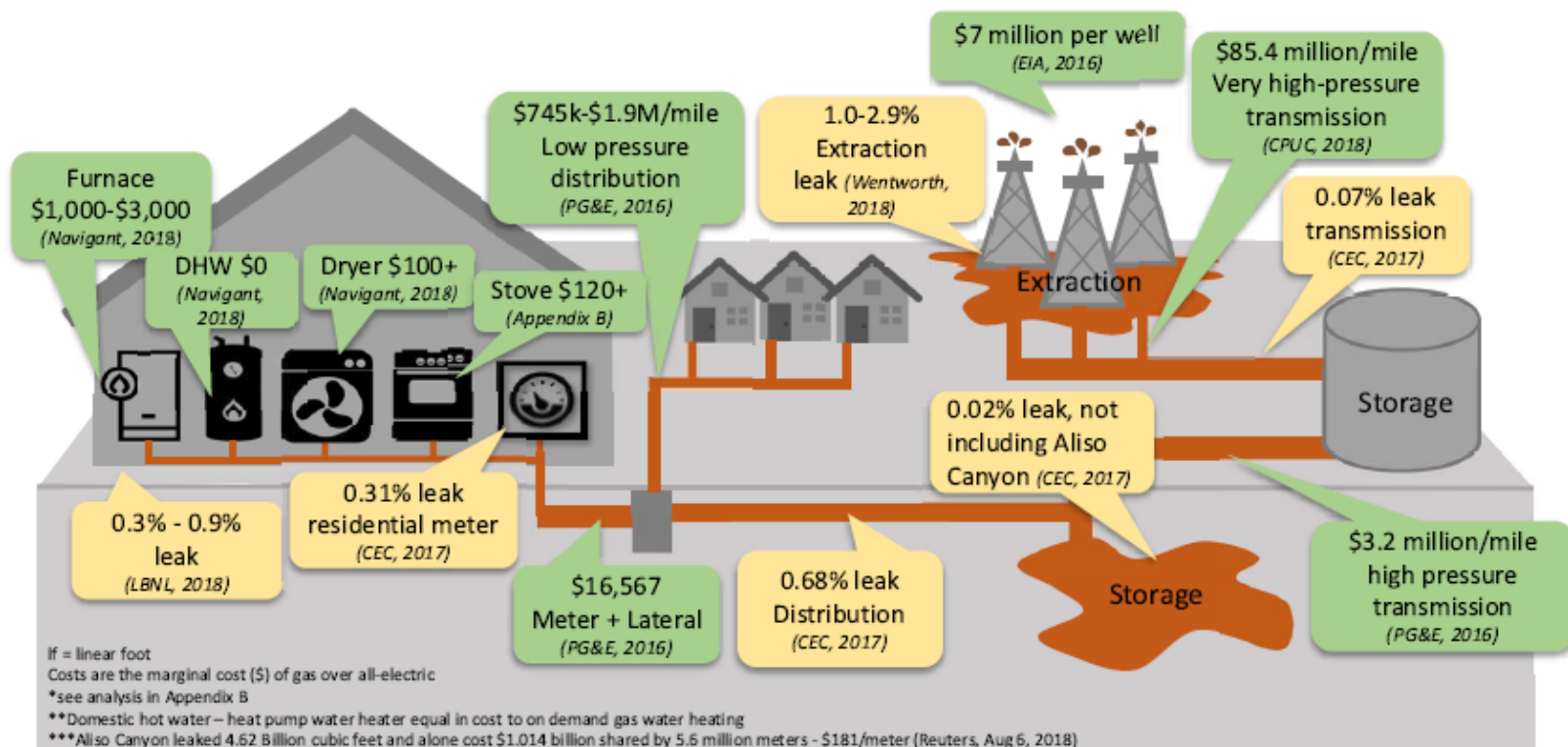


Figure from EDF



Leaks and Costs

In California, 2.4 to 4.8% of natural gas to homes is lost to leakage
Installing natural gas adds ~\$40,000/house to construction cost

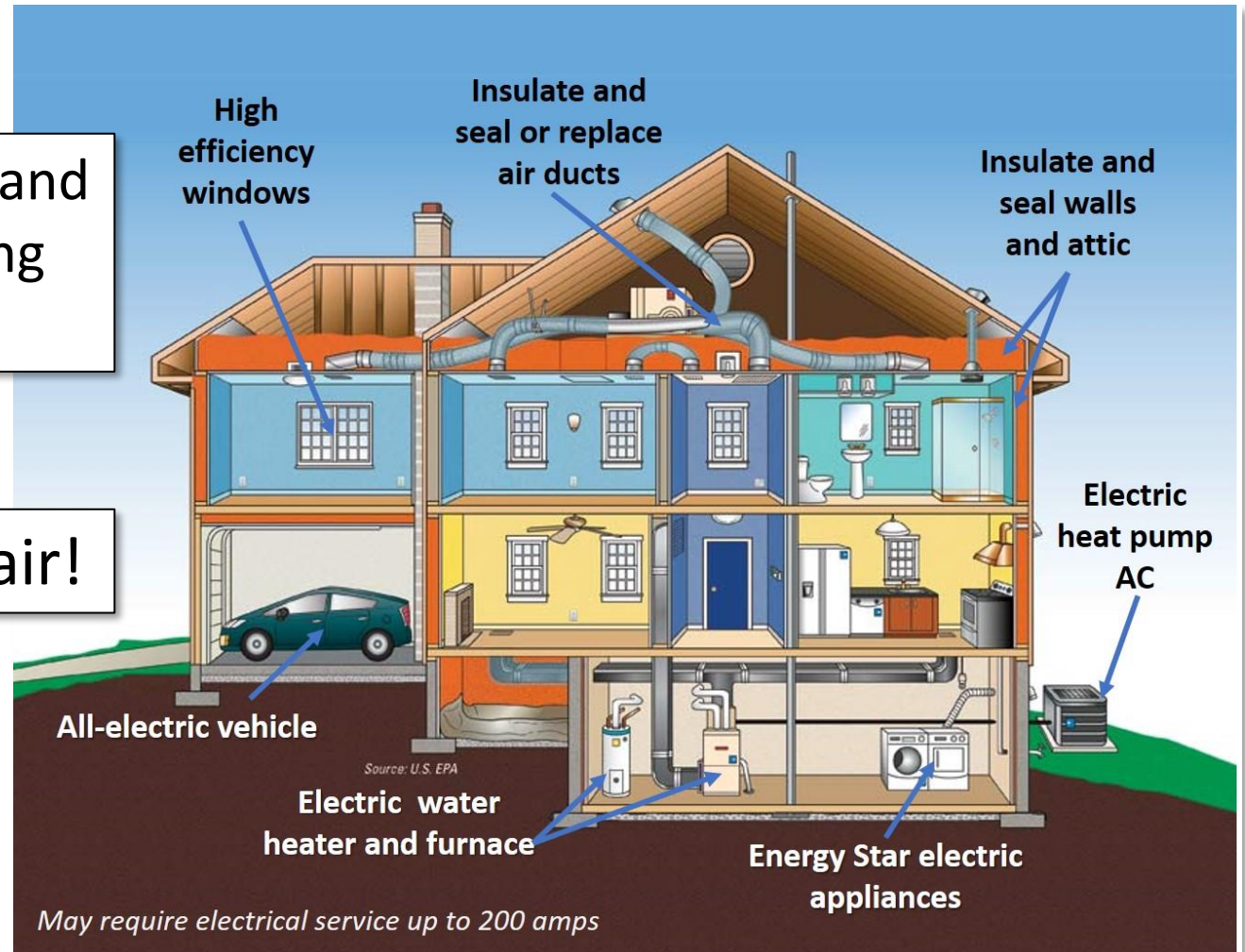




Building Electrification

New construction and
Retrofit of existing
buildings

Cleaner inside air!





Legislation

LWVC Supports

SB 31 (Cortese) *Failed in Senate*

Would require the California Energy Commission to award funds for projects that benefit ratepayers and lead to deployment of decarbonization technologies and investments in commercial and residential buildings.



Electric Vehicles

Gloria Chun Hoo



Why Drive Electric?

Saves you money Financial incentives, cheaper fuel, lower maintenance cost

Cuts your emissions Switching to an EV is the single largest action you can take to reduce emissions. Anywhere in the U.S., EVs are lower emissions than gas cars.

Gives a better driving experience Electric motors provide smooth, quiet, responsive acceleration, instant torque and deceleration.

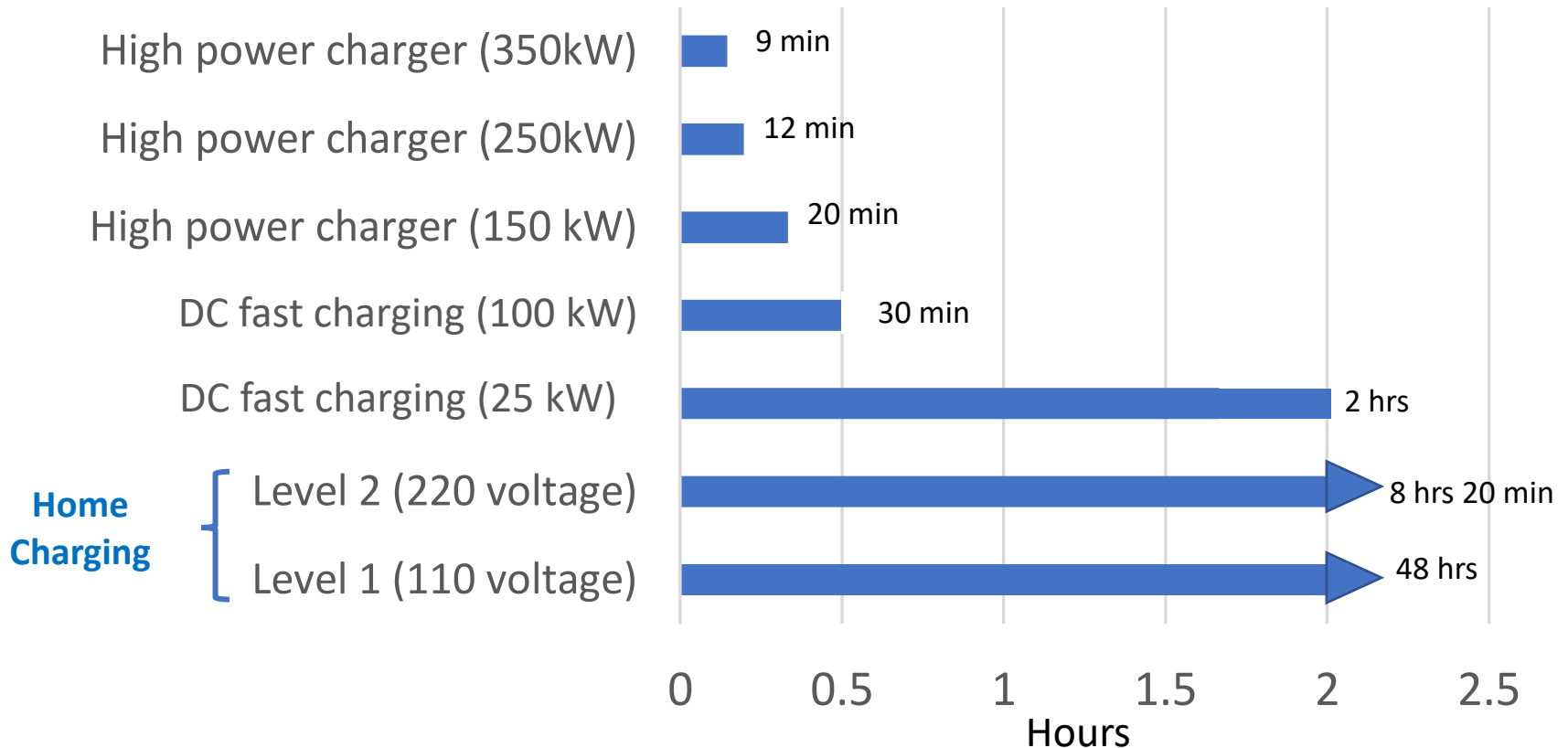
Today's EVs go far and charge fast Most new EVs have a range greater than 200 miles, and charging times are decreasing.

Convenient You can charge at home or just about anywhere.



Charging my EV

Time to Reach 200 mile Charge





Charging in an Apartment?

Options are Growing

- Charge at work if it's available
- Charge at public fast chargers
- Use or get 110v outlets in parking space
 - ✓ Agree to a flat monthly rate or
 - ✓ Use new Smart Outlets to handle the billing



Drive Clean with the League!

Coming in July!

Drive Clean with
The League



Sign Up

Free. On Zoom. Open to all.



Climate Action Plans

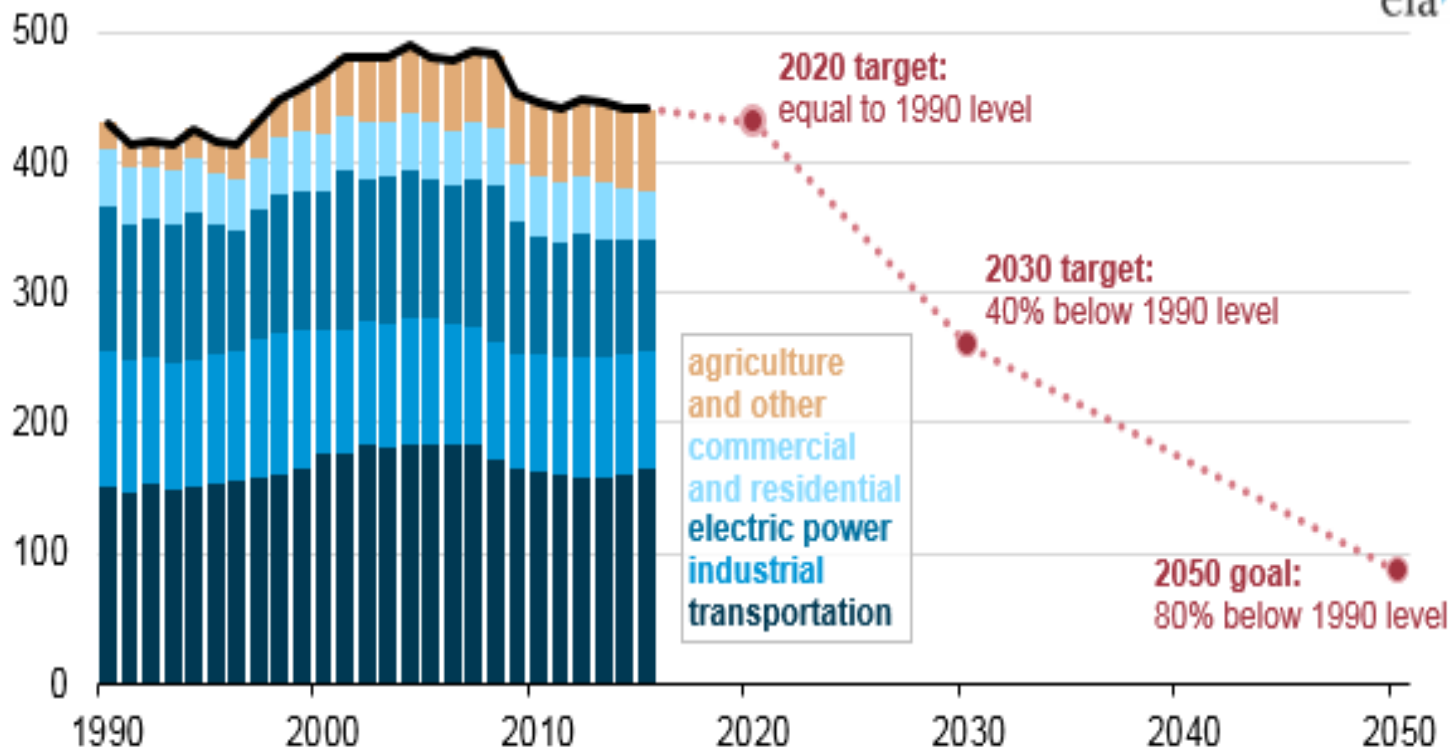
*Cities' roadmaps for reaching
California's emission goals.*

Kathy Berlin



CA Emission Goals

California greenhouse gas emissions by sector (1990-2015) and targets through 2050
million tons carbon dioxide (CO₂) equivalent



Source U.S. Energy Information Administration based on California Air Resources Board Data



Many Existing CAPs

Problems with proposed actions

- Often not specific, aspirational only
- Many CAPs do not include effective actions
- Many CAPS focus on those actions with little possibility of significantly reducing GHG emissions





Effective Actions

End use of fossil fuels. Move quickly to renewable energy.



BUILDINGS

Require new construction to be all electric (no gas).

Retrofit public buildings for renewable energy and energy efficiency.

TRANSPORTATION

Replace municipal vehicles with renewable energy powered vehicles.

Install EV charging stations.





Effective Processes

- Include environmental justice in all climate actions.
- Include tracking and accountability.
- Include public transparency.
- Integrate climate action in all city actions.





Civic Engagement

GRASSROOTS

- I. Organize keeping LWV goals and positions in mind.
- II. Working with others to create community-generated proposals and actions
- III. Continue the ongoing engagement of League with community.

GOVERNMENT

Work with the city to design a process that involves the public early and incorporates ongoing input from the community.





Legislation

Diz Swift



2021 California Legislation

Criteria

- Aligned with LWV positions
- Makes a significant impact
- League voice makes a difference

Sea Level Rise

AB 67 (Petrie-Norris)

AB 1445 (Levine)

Both failed in Assembly

Food, Soils, and Ag

SB 27 Skinner)

AB 252 (Rivas and Salas)

Both moved to next House

Bldg. Electrification

SB 31 (Cortese)

Failed in Senate





Local LWV Involvement

Gloria Chun Hoo



Local LWV Action

- Join the state Climate Change Task Force
- Participate as a local League in CCTF events
- Form your own local League Climate Change committee
- Build partnerships and collaborate with other organizations
- Educate yourself (use our website)
- Conduct community educational forums

Contact us: climatechange@lwvc.org

lwvc.org/climate-change-task-force



Drive Clean with the League!

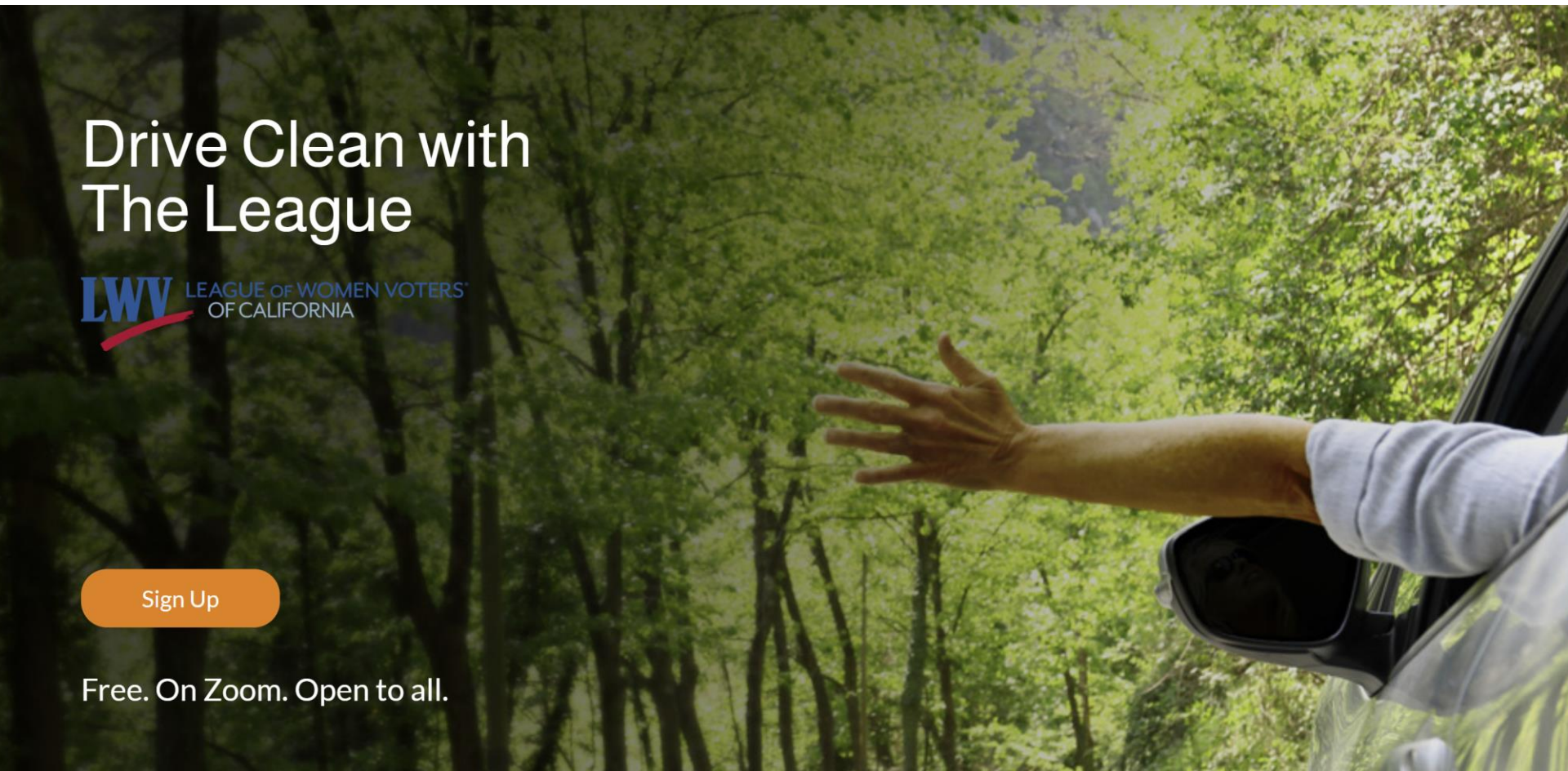
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Q&A



Join a Team!

Food, Soils, and Agriculture

Wildfire

Climate Justice

Renewable Energy

Climate Action Plans

Transportation

Water

Health and Climate

Oceans

**Email Team
Chair to Join!**