

Air Pollution and Community Health

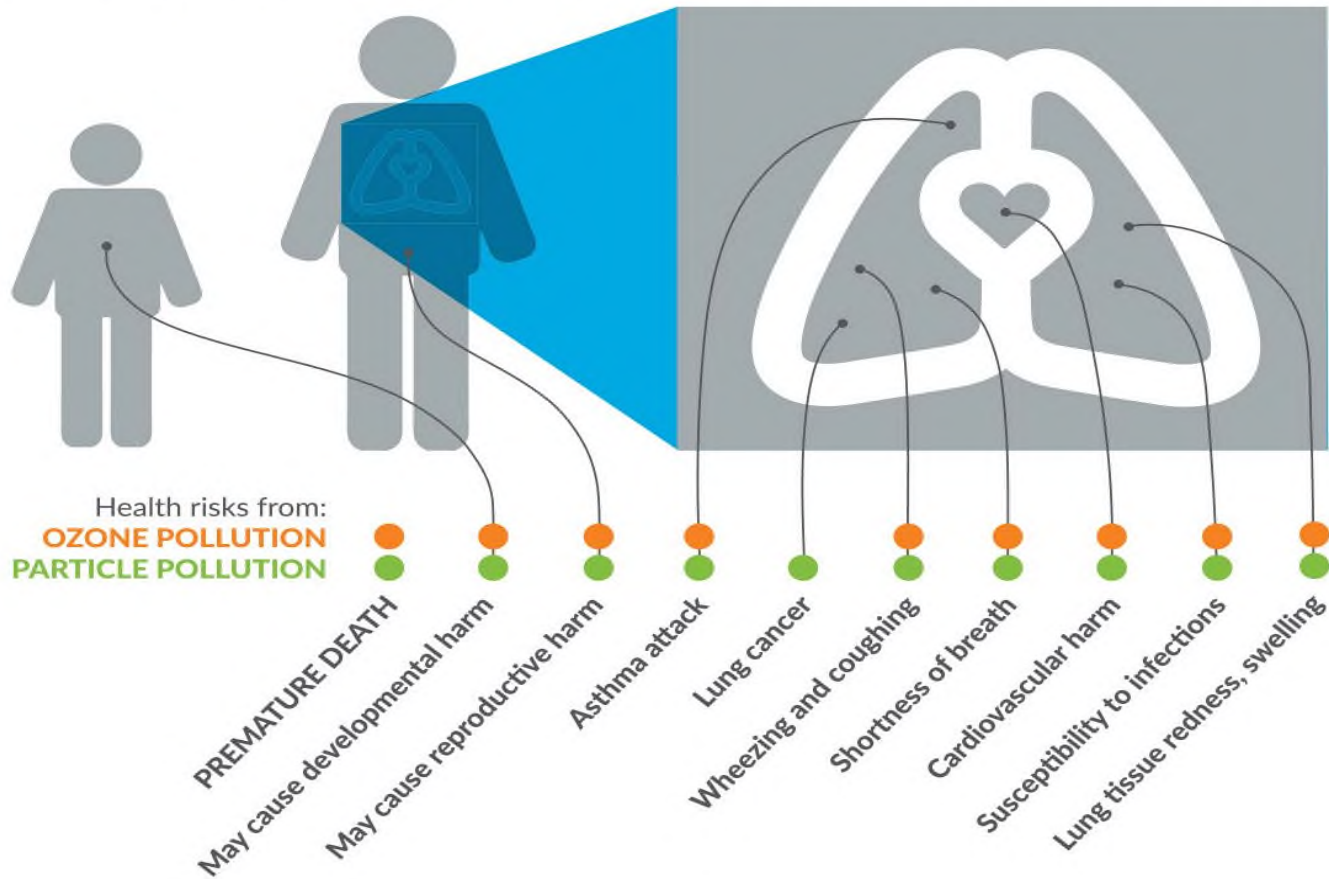
Bonnie Holmes-Gen



STATE
OF THE **AIR** 2017

Key Air Pollution Health Impacts

Air pollution can lead to illness and premature death.

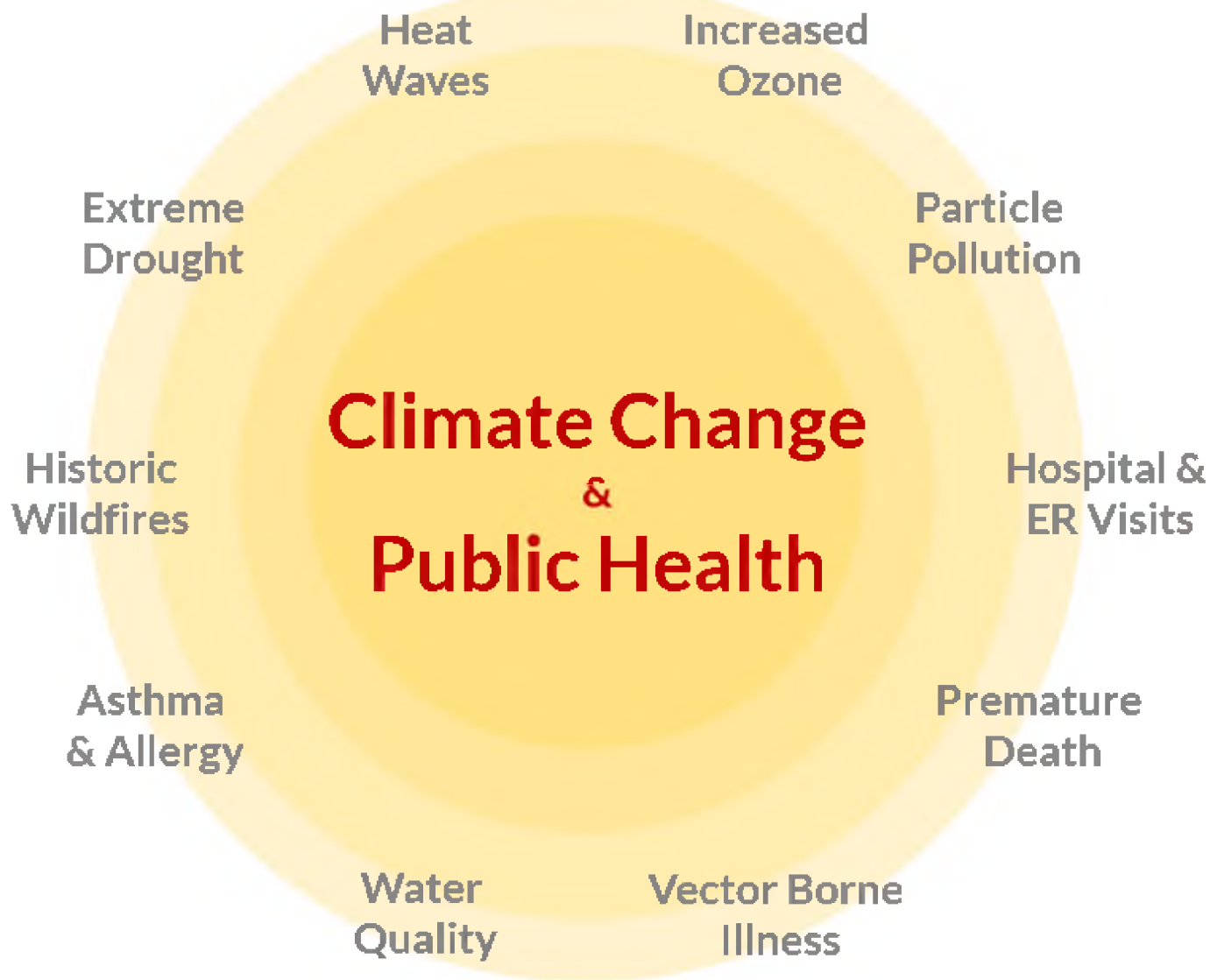


Climate change: a top lung health concern



“Given the potential of climate change to reverse the health gains from economic development, and the health co-benefits that accrue from actions for a sustainable economy, ***tackling climate change could be the greatest global health opportunity of this century.***”

Lancet Commission on Health and Climate Change, June 2015



Climate Penalty

Climate Change Slows Air Quality Progress

- Extreme events include: drought, heat waves, wildfires
- Studies show increased emissions, more unhealthy days in Bay Area, Los Angeles, San Joaquin Valley



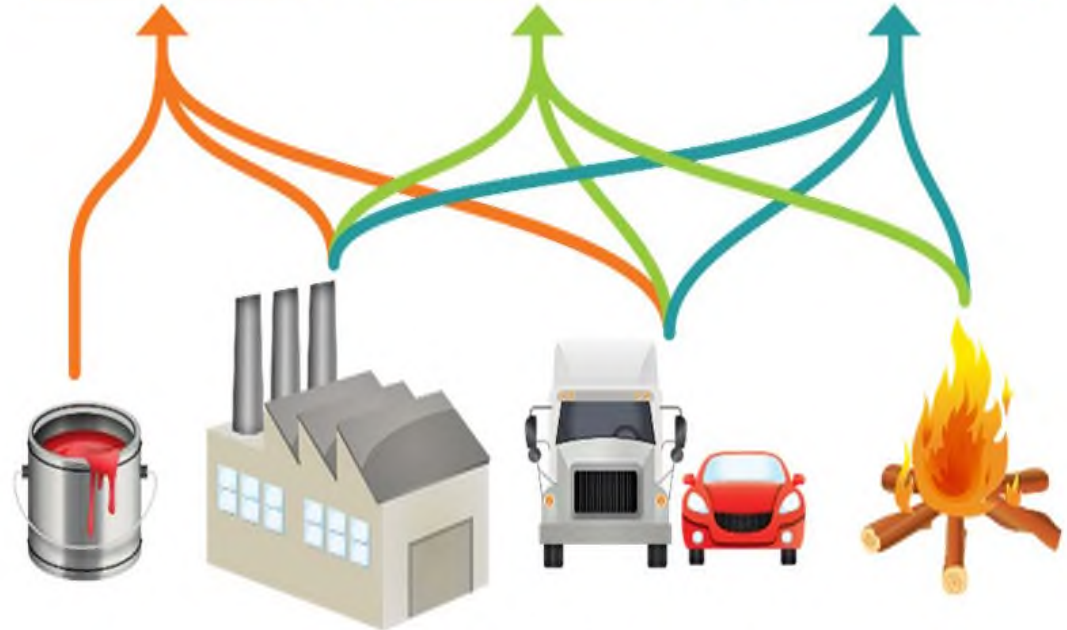
State of the Air 2017



OZONE POLLUTION
is smog, which is a highly irritating, but invisible gas.

YEAR ROUND PARTICLE
pollution is the avg. level of microscopic bits of solids and aerosols in the air.

SHORT TERM PARTICLE
pollution are days with spikes in those bits of pollution.

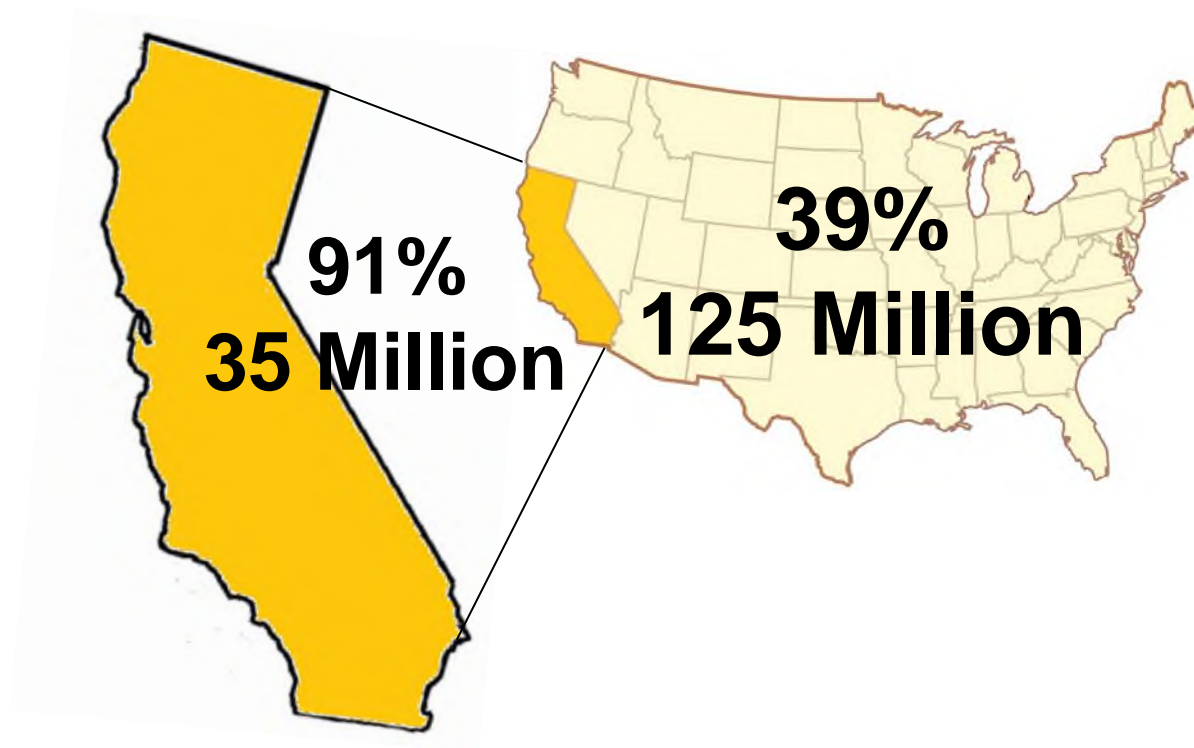


SOURCES OF POLLUTION

State of the Air 2017

Who is at risk?

91% of Californians live in a county with a failing grade

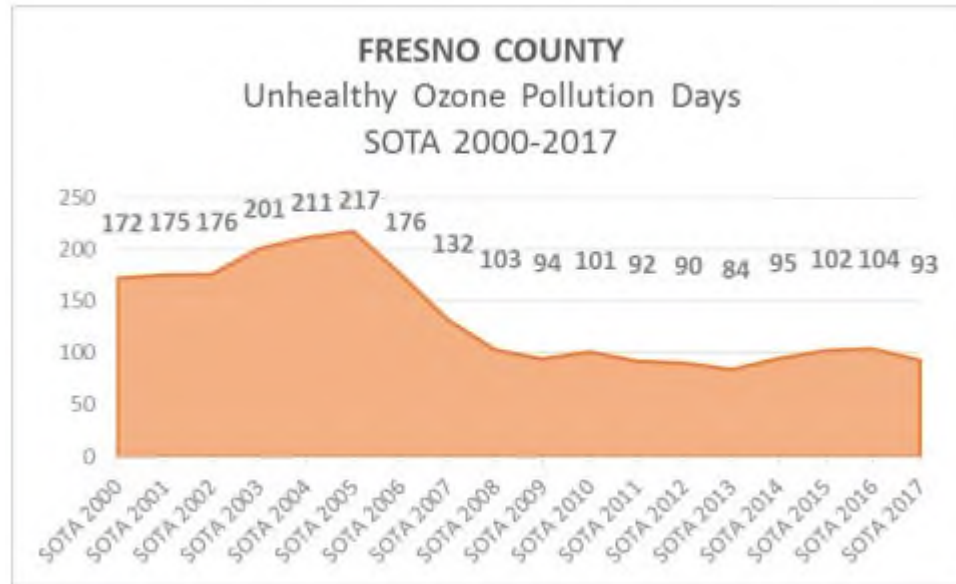
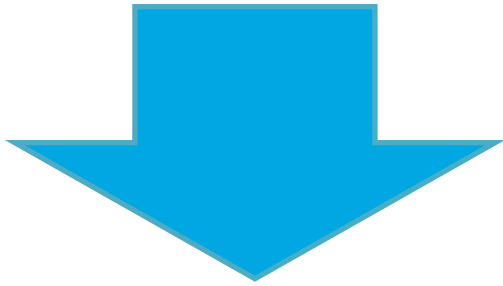


Most Polluted US Cities: State of the Air 2017

Unhealthy Ozone Days		Unhealthy Particle Days		Annual Particle Levels	
Los Angeles-Long Beach, CA	1	Bakersfield, CA	1	Visalia-Porterville-Hanford, CA	1
Bakersfield, CA	2	Fresno-Madera, CA	2 (t)	Bakersfield, CA	2
Fresno-Madera, CA	3	Visalia-Porterville-Hanford, CA	2 (t)	Fresno-Madera, CA	3
Visalia-Porterville-Hanford, CA	4	Modesto-Merced, CA	4	San Jose-San Francisco-Oakland, CA	4
Phoenix-Mesa-Scottsdale, AZ	5	Fairbanks, AK	5	Los Angeles-Long Beach, CA	5
Modesto-Merced, CA	6	San Jose-San Francisco-Oakland, CA	6	Modesto-Merced, CA	6
San Diego, CA	7	Salt Lake City-Provo-Orem, UT	7	El Centro, CA	7
Sacramento-Roseville, CA	8	Logan, UT-ID	8	Pittsburgh, PA-OH-WV	8
New York-Newark, NY-NJ-CT-PA	9	Los Angeles-Long Beach, CA	9	Cleveland-Akron-Canton, OH	9
Las Vegas-Henderson, NV-AZ	10	Reno-Carson City-Fernley, NV	10	San Luis Obispo-Paso Robles, CA	10

Reduced Smoggy Days

Fresno
45%



2017: Weighted average of 93 bad air days

Soot Challenges Bakersfield

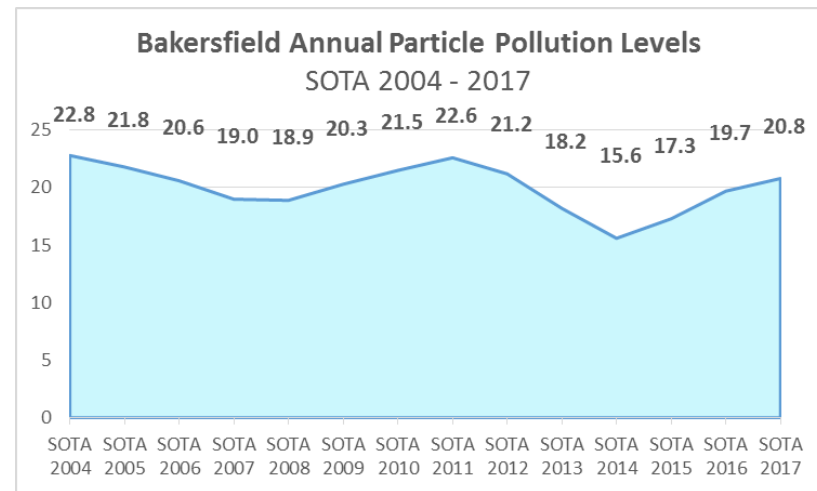
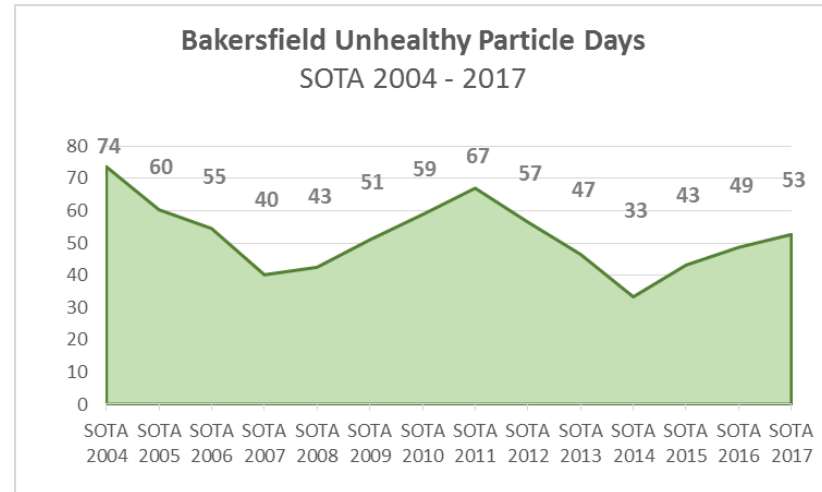
Local Sources

- Diesel Trucks
- AG Equipment
- Oil and Gas
- Wood Smoke

Climate Impacts

- Drought
- Wildfires

2017: 53 unhealthy days



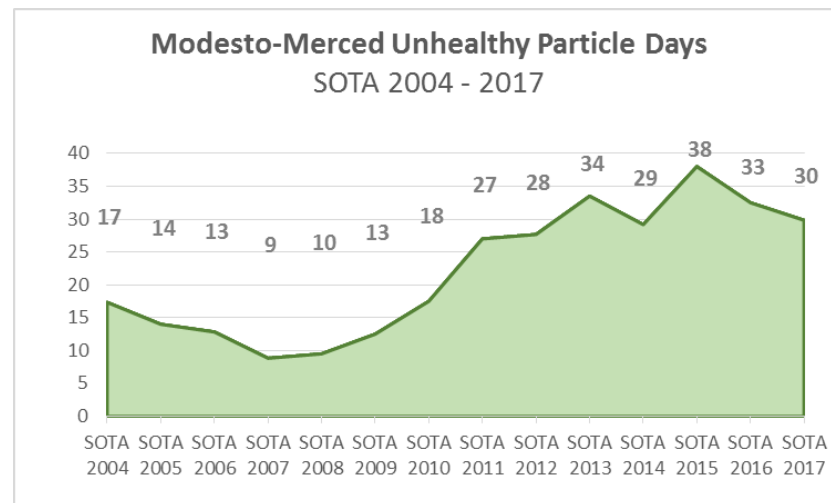
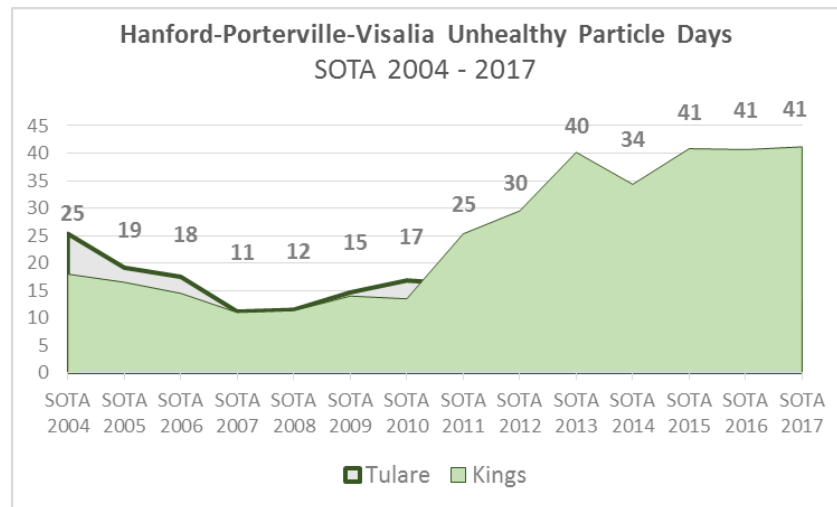
San Joaquin Valley Soot Challenges Hanford/Modesto

Local Sources

- Diesel Trucks
- AG Equipment
- Oil and Gas
- Wood Smoke

Climate Impacts

- Drought
- Wildfires
- 2014-2015 unhealthy days



What do we need to breathe easy?



Cut Short-Lived Climate Pollutants

***Black Carbon 50% by
2030***

Methane 40% by 2030

F-Gases 40% by 2030

STAND WITH DOCTORS

to Fight Super Pollutants and Climate Change

doctorsforclimatehealth.org



lung.org/california

#ClimateHealth

Zero Emission

Vehicles (Electric/Hydrogen)
Transit and School Buses
Freight and Logistics

Community Measures

Facility Controls
Short-lived Climate Pollutants
Cap and Trade Investments

Clean Air
Healthy
Climate

Clean, Renewable Power

Solar/Wind
Efficiency/storage

Land Use/Transportation

Walking/Biking/Transit
Less Sprawl and Driving
Coordinate state/local efforts

How do we get to clean air?

- *Move away from fossil fuels*
- *Increase zero emission transportation and renewable energy.*
- *Strengthen diesel clean up requirements*
- *Reduce “super pollutants” like black carbon and methane.*
- *Avoid residential wood burning; support investment in the cleanest heating options.*
- *Link local controls on criteria pollutants and toxics to cap and trade program.*



STATE OF THE AIR 2017

www.stateoftheair.org/California2017

Bonnie Holmes-Gen, Bonnie.Holmes-Gen@lung.org
Will Barrett, William.Barrett@lung.org