

Michael Cacciotti

Governing Board Vice Chair

South Coast Air Quality Management District

Council Member, South Pasadena

Representing the Cities of Los Angeles County, Eastern Region



34 Cities - 2 million residents

AIR QUALITY UPDATE - CITY OF PASADENA

March 27, 2023, at 5:30 p.m.





SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

1976 - Formed to Meet Federal & State Health Standards for Air Pollution



Congressman Jerry Lewis - R (CA-41) appeals for clean air on January 8, 1970; as an Assemblyman with a petition of more than 140,000 Inland Empire signatures. Lewis on the left and Lieutenant Governor Ed Reinecke on the right are joined by other members of the California Legislature in a joint effort to reduce air pollution.

Los Angeles San Bernardino
Orange Riverside

17 Million People

28,000 Permitted Sources

67% of EJ population in California lives in region



One-third of all US containerized cargo

SOURCES OF AIR POLLUTION

STATIONARY SOURCES = 20%



Cleaners & Solvents



Paint



Autobody



Gas Stations



Power Plant & Industry



Refineries

MOBILE SOURCES = 80%



Oceangoing Vessels



Airplanes



Trains



Trucks



Off-road Equipment



Cars

SOUTH COAST AIR BASIN DOES *NOT* MEET FEDERAL STANDARDS FOR OZONE (aka SMOG) and PM2.5 (Particulate Matter)

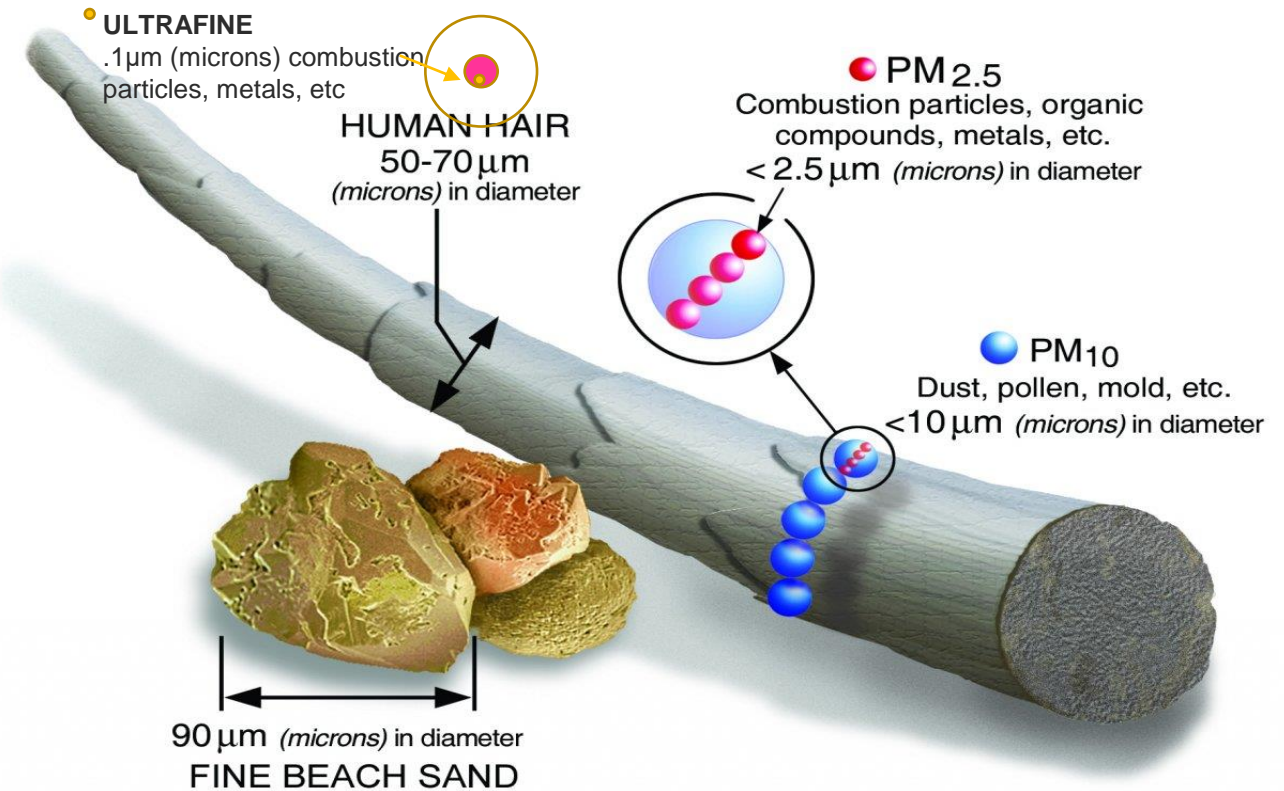
AIR POLLUTION IN SOUTH COAST REGION

OZONE (aka SMOG)

Formed in atmosphere through chemical reaction of air pollutants - nitrogen oxides (NOx) and volatile organic chemicals (VOCs) - in presence of sunlight.

- The largest source of NOx are ships, aircraft, off-road equipment, heavy-duty trucks and locomotives.

Particulate Matter 2.5 (PM2.5)



Fine inhalable particles emitted directly or formed in atmosphere through a chemical reaction of gases, including NOx and other pollutants.

- Direct sources of air pollutants are road dust, diesel soot, combustion engines.

HEALTH IMPACTS

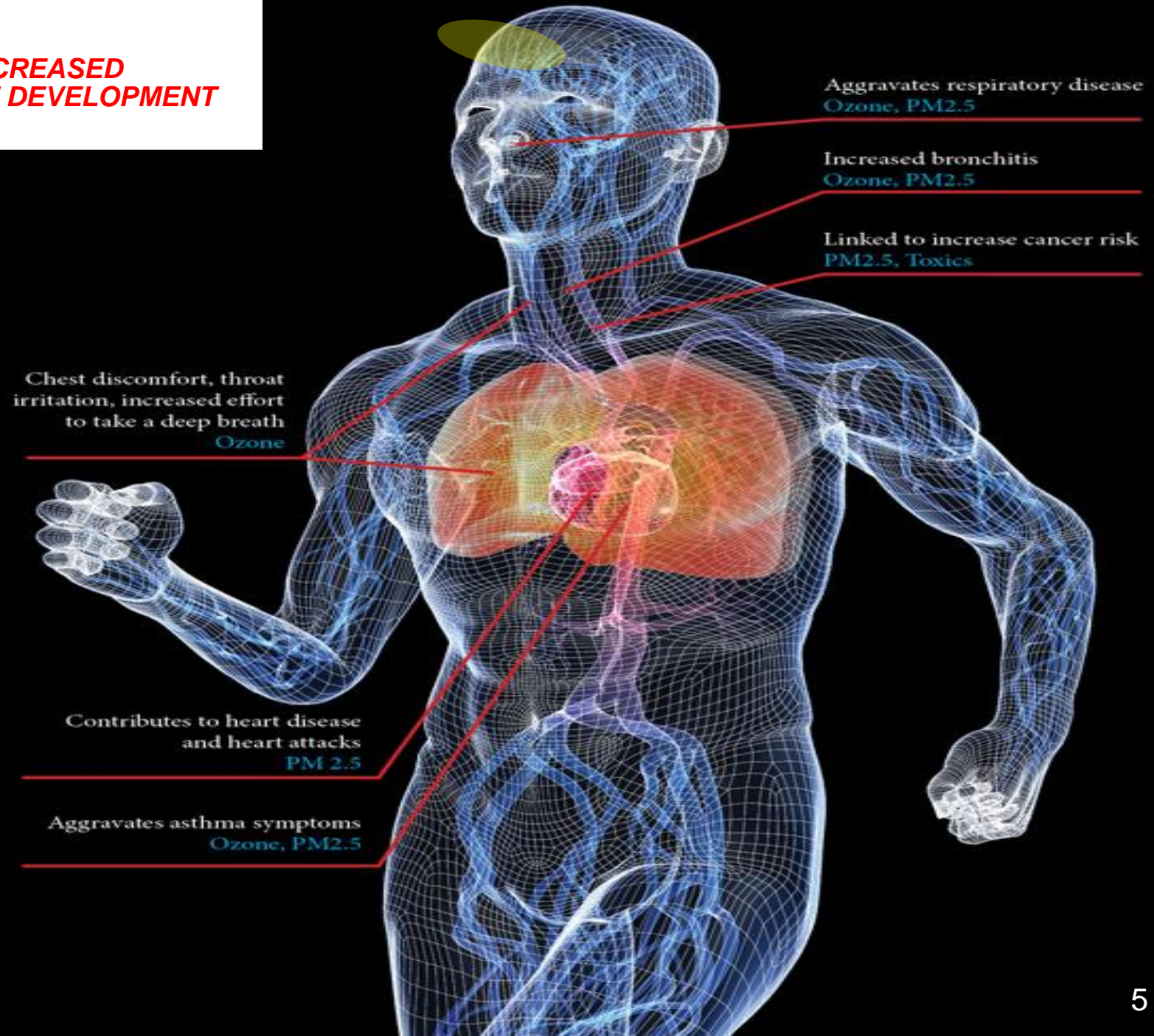
RESPIRATORY, CARDIOVASCULAR, METABOLIC, INCREASED CANCER RISK, COGNITIVE, PHYSICAL & COGNITIVE DEVELOPMENT FOR CHILDREN

“Mom’s Exposure to Dirty Air in Pregnancy Could Harm a Toddler’s Development” – USNews.com, 1/26/2023

“Even Brief Exposure to Air Pollution has Rapid Impacts on the Brain” – Neurosciencenews.com, 1/24/23




“Clearing Air Pollution Helps Clear the Fog of Aging – And May Cut the Risk of Dementia” – Kaiser Health News, 9/20/22

“Scientists Find Clues to How Air Pollution May Trigger Lung Cancer” – CNN Health, 9/12/22



HEALTH IMPACTS

MEETING AIR STANDARDS = MAJOR PUBLIC HEALTH BENEFITS

Prevent Premature Deaths	Prevent Hospitalizations	Prevent Work and School Loss Days	Potential Annual Monetized Public Health Benefits*
1,500 / year	8,700 / year	163,000 / year	\$19.4 Billion
			
In comparison, ~1,350 traffic fatalities in 2019 in South Coast region	Affects on children: Low Birth Weight, Lung Growth, Asthma	Impacts are highest in Environmental Justice (EJ) communities	From higher cancer risk, respiratory & cardiovascular diseases, greater susceptibility to infections

* <http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/socioeconomic-analysis>
http://publichealth.lacounty.gov/mch/AsthmaCoalition/docs/BenefitsofMeetingCleanAirStandards_11_06_08.pdf

Progress & Challenges:

...MEETING HEALTH-BASED AIR QUALITY STANDARDS

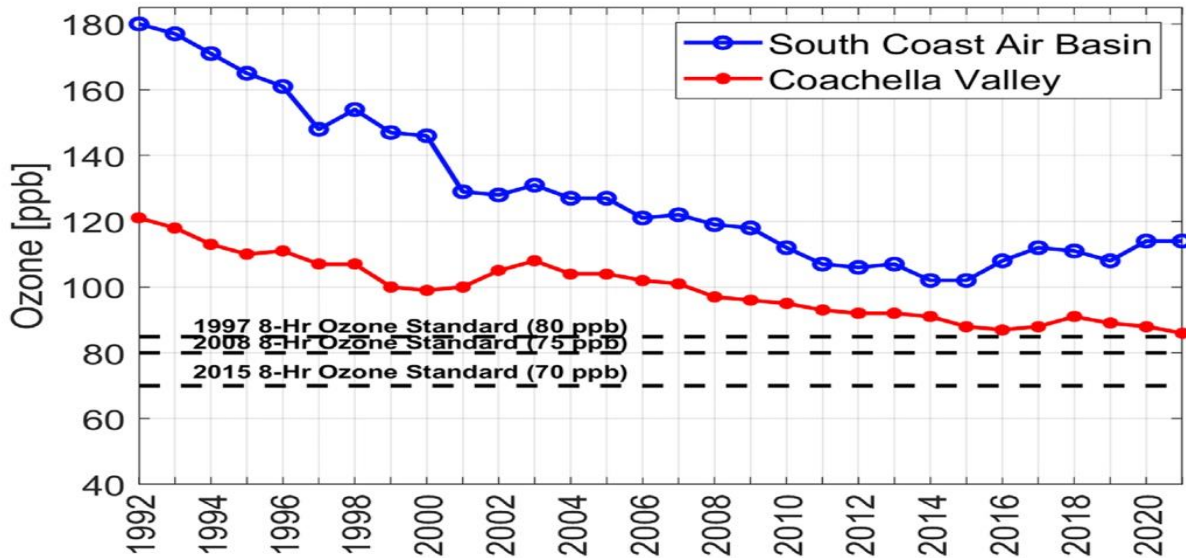
GOOD NEWS

- Air Pollution & Air Toxics Greatly Reduced

AIR POLLUTION



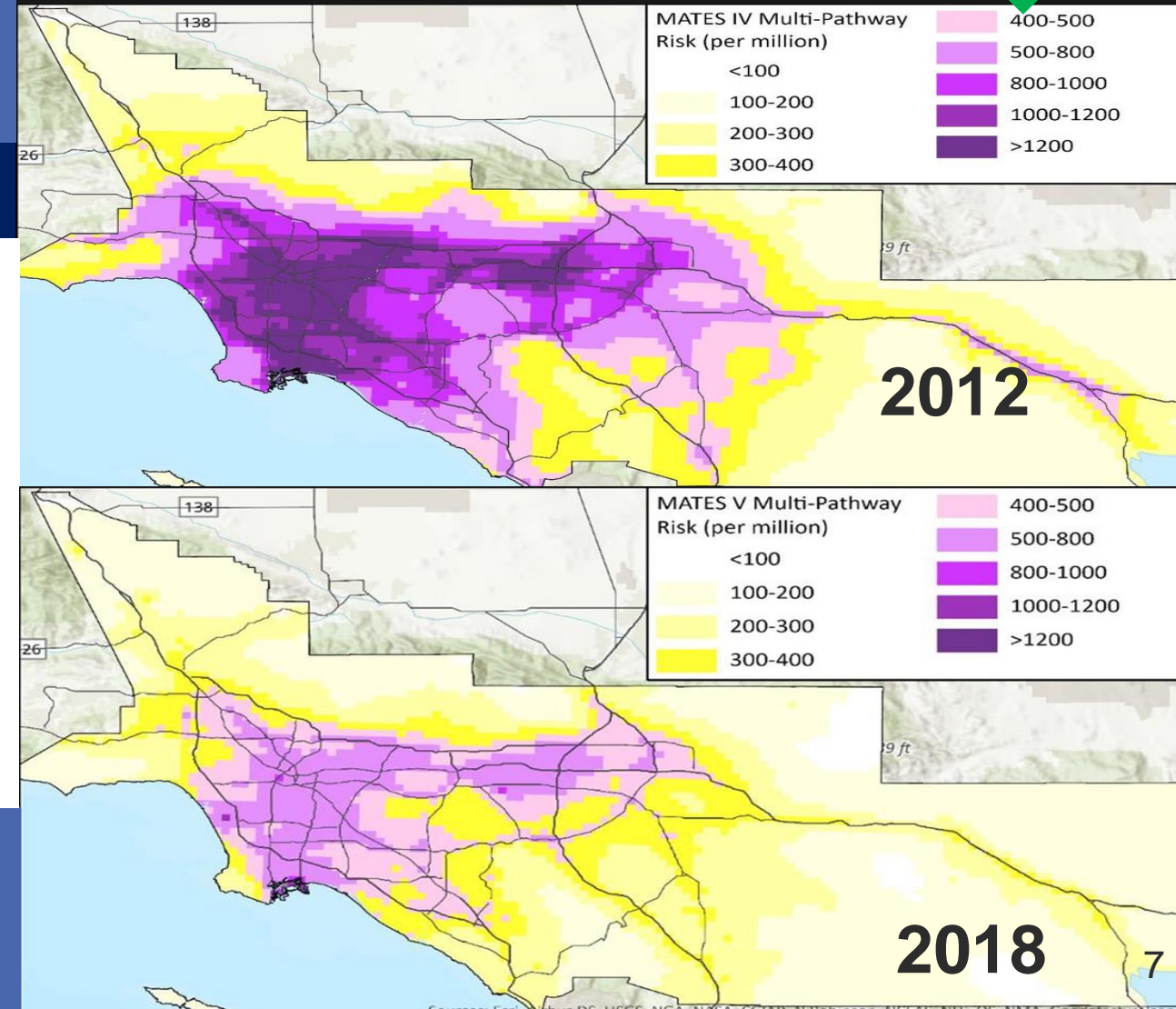
8-Hour Ozone Design Values



From 2012 to 2018:

Cancer risk decreased from
997 in-a-million to 454 in-a-million

CANCER CAUSING AIR TOXICS



Progress & Challenges:

...MEETING HEALTH-BASED AIR QUALITY STANDARDS

BAD NEWS

- Our Region has Some of the Worst Air Quality in Nation:

Mobile Sources Contribute Over 80% of Air Pollution in Region



What If...?

SOUTH COAST AIR BASIN DOES **NOT** MEET FEDERAL STANDARDS FOR OZONE (aka SMOG) and PM2.5 (Particulate Matter)

U.S. EPA

- National air quality standards
- Regulates sources
 - Stationary
 - Mobile
- Sanctions on states

CARB

- Regulates mobile sources
- Incentivizes Technologies
 - Infrastructure
 - Mobile Source

South Coast AQMD

- Plans to meet national air quality standards
- Regulates
 - Stationary sources
 - Mobile (limited)
- Incentivizes
 - Mobile sources

If South Coast Air Basin does not meet federal standards under Clean Air Act * ... sanctions could be triggered. Preliminary estimated costs:



Stationary Sources:
\$40-50 million per year
in additional fees or
permitting costs



Federal Highway
Funding: \$600 million
per year before
considering Bipartisan
Infrastructure Law



Federal
Implementation Plan:
unknown costs, but
anticipated to be high

* There are several deadlines for multiple standards. Some impending deadlines are in **2023, 2031, 2037.**

Road to Clean Air

... Residential Incentives

Visit <http://www.aqmd.gov/home/programs> or use QR Code to learn more about AQMD Incentive Programs



CLEAN FURNACE



Up to \$1,500
for **CLEANair**
Furnace
Rebate
Program*

ELECTRIC LAWNMOWER



Up to \$250
per
Electric
Lawnmower

EV CHARGER



\$250 or more
Rebate for
Level 2
(240V) EV
Charger

REPLACE YOUR RIDE



Up to \$9,500
for clean air
vehicle,
transit passes,
car-sharing, or
an e-bike

* New program in development for zero-emission appliances for space and water heating.

Road to Clean Air

... Commercial & City Incentives

Visit <http://www.aqmd.gov/home/programs> or use QR Code to learn more about South Coast AQMD Incentive Programs



Total investment program wide since 2008: \$1.2B

Up to 85% Discount, New program (March 2023): Commercial Landscaping Equipment

Charging & Fueling Infrastructure

Vehicles: Light, Medium & Heavy-Duty

Off-Road Equipment, Marine Vessels & Locomotives



CLEAN AIR INVESTMENTS IN THE CITY OF PASADENA



Clean Air Funds – 2008 to Present

- \$13,882,672
- 226-unit count of equipment/vehicle/station
- Program: Clean Fuels, Replace Your Ride, Carl Moyer, Prop 1B
- Funding available – Carl Moyer. Deadline: 5/9/23 www.aqmd.gov/moyer



Mobile Source Air Pollution Reduction Review Committee (MSRC)

- \$653,670 – EV charging infrastructure, purchase of zero-emission medium-duty and medium-heavy duty vehicles, expansion of existing CNG infrastructure



AB 2766 Motor Vehicle Subvention Funds

(Funding to Cities to reduce air pollution from motor vehicles)

- 2020-21 balance: \$117,085
- 2021-22 disbursed: \$187,785.31
- Recent projects: Rideshare program, telecommuting



Access Services & Protect Your Health:

SOUTH COAST AQMD



Small Business Assistance
1-800-388-2121
Complaint Hotline
1-800-CUT-SMOG or
1-800-288-7664

Free mobile phone App
 for real time air quality information, alerts, and to file complaints



Provides air quality information at community level
 from 39 permanent multi-pollutant and 4 single-pollutant air monitoring sites

Free “Sensor Educational Toolkit”
 to the public to learn about low-cost sensors

CONTACT US

Ways to Stay Connected @SouthCoastAQMD

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THANK YOU



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