



# Air Monitoring and Community Benefit Programs in the Eastern Coachella Valley

COACHELLA VALLEY EJ TASK FORCE MEETING

DECEMBER 19, 2018

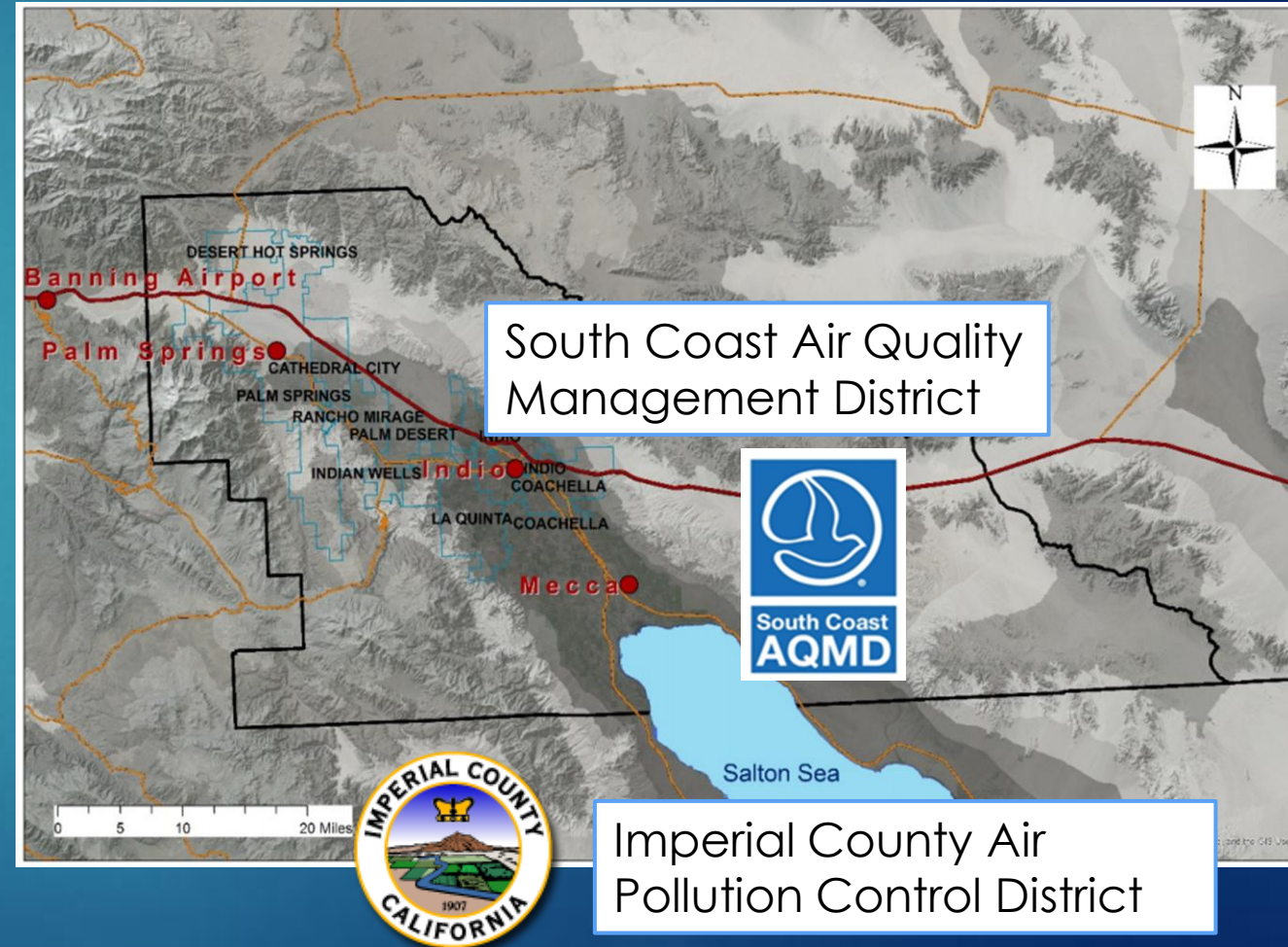
JO KAY GHOSH, HEALTH EFFECTS OFFICER

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

# Local Air Districts near the Salton Sea



- ▶ Two local air districts serve the communities near the Salton Sea
- SCAQMD Air Monitoring in the Eastern Coachella Valley:
- ▶ 3 permanent air monitoring stations
- ▶ 2 stations measuring hydrogen sulfide\*
- ▶ Monitoring for special circumstances – Frost Prevention Burning

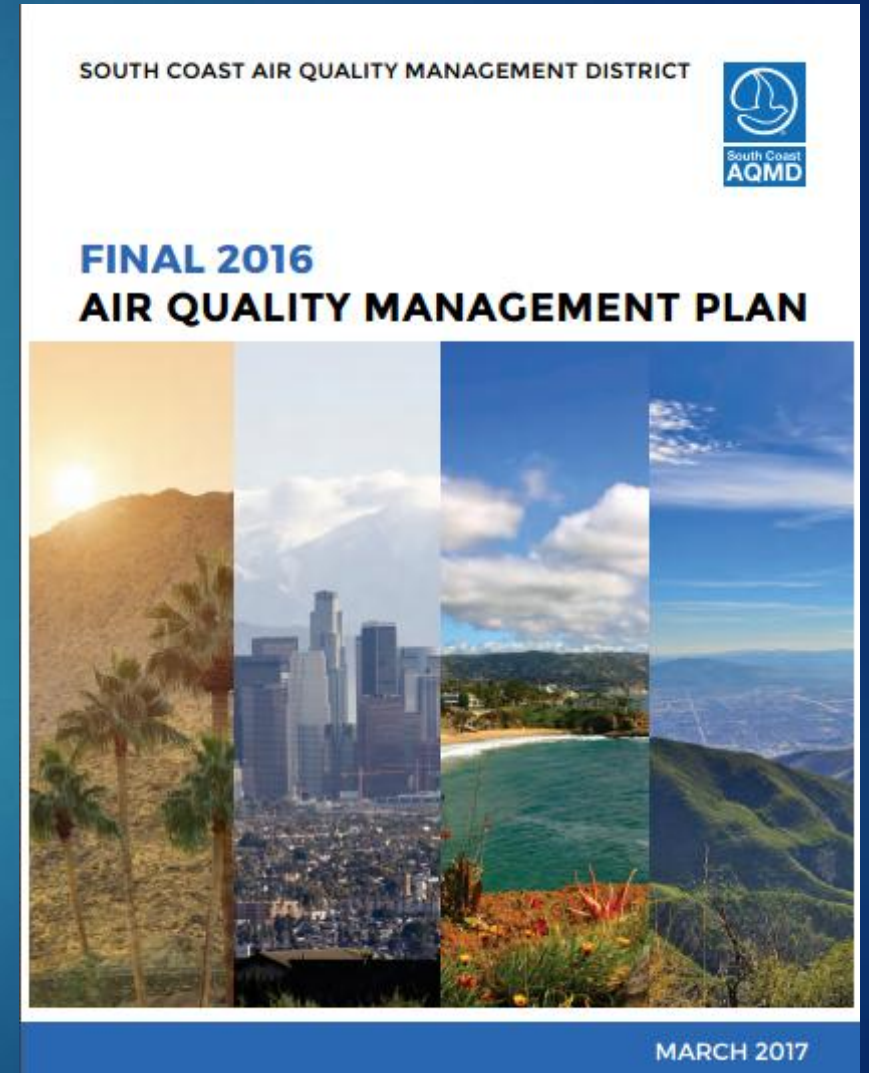


\* with assistance from the Imperial Irrigation District



# Air Quality Trends

- ▶ Ozone pollution has been **improving for the last couple of decades**
- ▶ The Coachella Valley still **does not meet the federal standards** for ozone
- ▶ We're continuing to work on this through implementing our **Air Quality Management Plan (AQMP)**



# Air Quality – How Are We Doing?



- ▶ The Coachella Valley currently **meets** the federal standards for:

- ▶ Fine Particulate Matter (PM<sub>2.5</sub>)
- ▶ Nitrogen dioxide (NO<sub>2</sub>)
- ▶ Carbon Monoxide (CO)
- ▶ Lead (Pb)
- ▶ Sulfur Dioxide (SO<sub>2</sub>)



- ▶ The Coachella Valley **does not meet** the federal standards for:

- ▶ Coarse Particulate Matter (PM<sub>10</sub>), due to windblown dust events that recur in the area
- ▶ Ozone (O<sub>3</sub>)



# Air Pollution Monitoring near Salton Sea



South Coast  
AQMD

[Trends](#) [Alerts](#) [About](#) [Contact](#)

## The Salton Sea

### Hydrogen Sulfide Monitoring

Sign up to receive email alerts when Hydrogen Sulfide (H<sub>2</sub>S) levels reach 30 Parts Per Billion.

Please select air monitoring station of interest:

- ☐ Near Shore Site - Alert me when H<sub>2</sub>S reaches or exceeds 30 ppb
- ☒ Mecca Community Site - Alert me when H<sub>2</sub>S reaches or exceeds 30 ppb

Provide your email address and click subscribe

Subscribe

Manage My Subscriptions

#### Near-Shore Site

Most Recent  
H<sub>2</sub>S

0.5

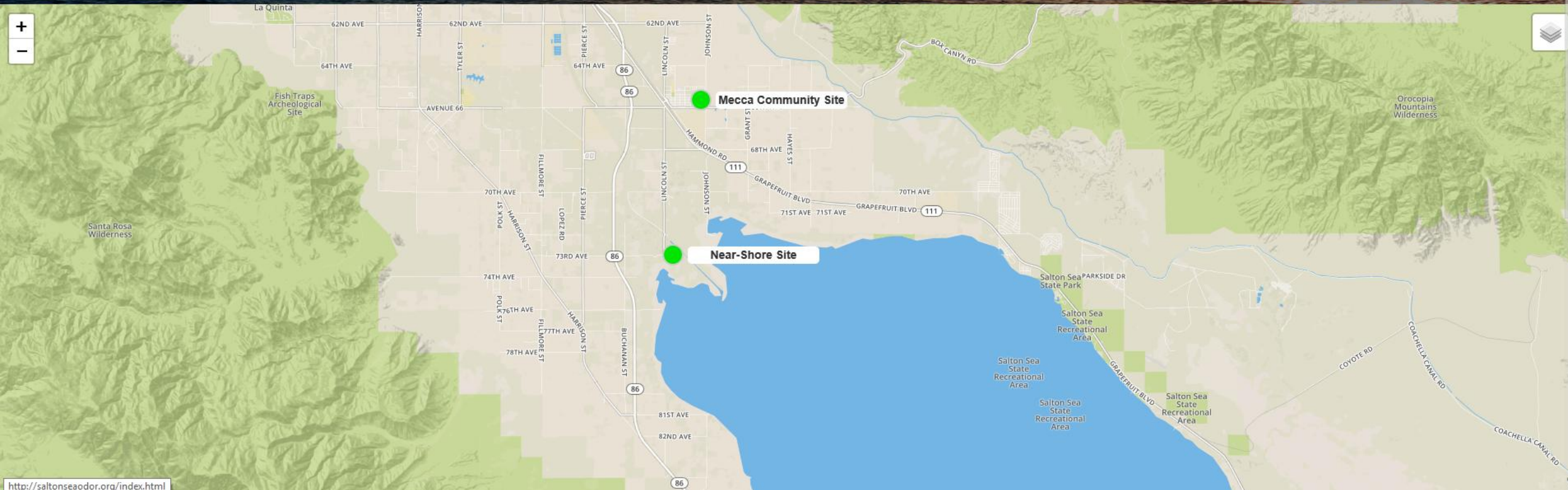
Parts Per Billion (ppb)  
2018-10-17 03:00 PM PDT

#### Mecca Community Site

Most Recent  
H<sub>2</sub>S

0

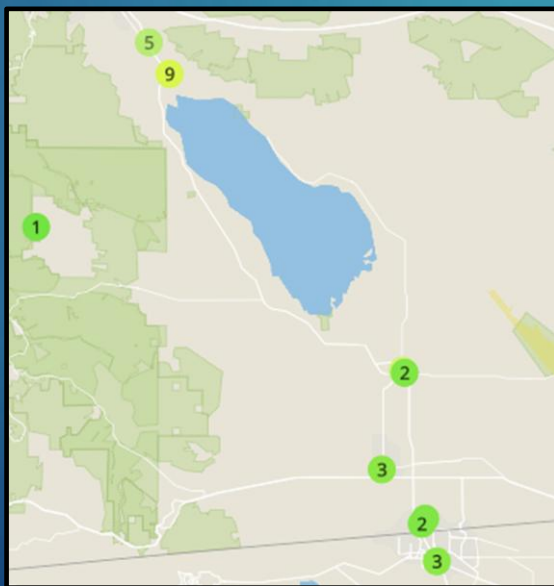
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2018-10-17 03:00 PM PDT



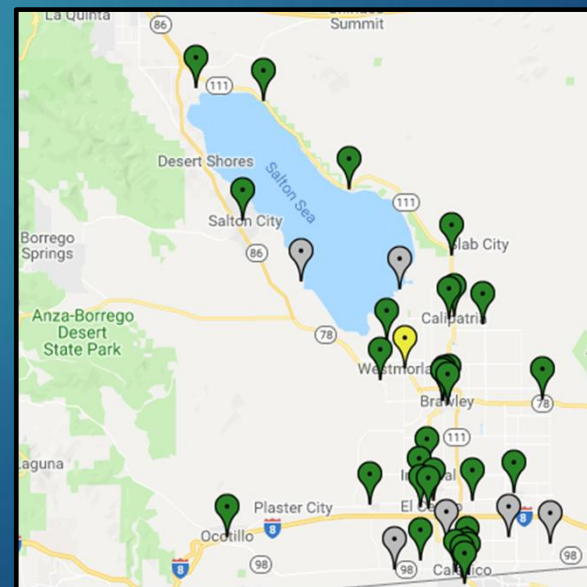
# Community Citizen Science Projects

- ▶ Community air monitoring networks serve as a complement to regulatory monitors
- ▶ Increased use of “low-cost” air quality sensors improves the knowledge of exposure to air pollution at a community and individual level
- ▶ Large-scale community air monitoring networks have started in Coachella Valley
  - ▶ PurpleAir
  - ▶ Identifying Violations Affecting Neighborhoods (IVAN))

PurpleAir Network



IVAN Network

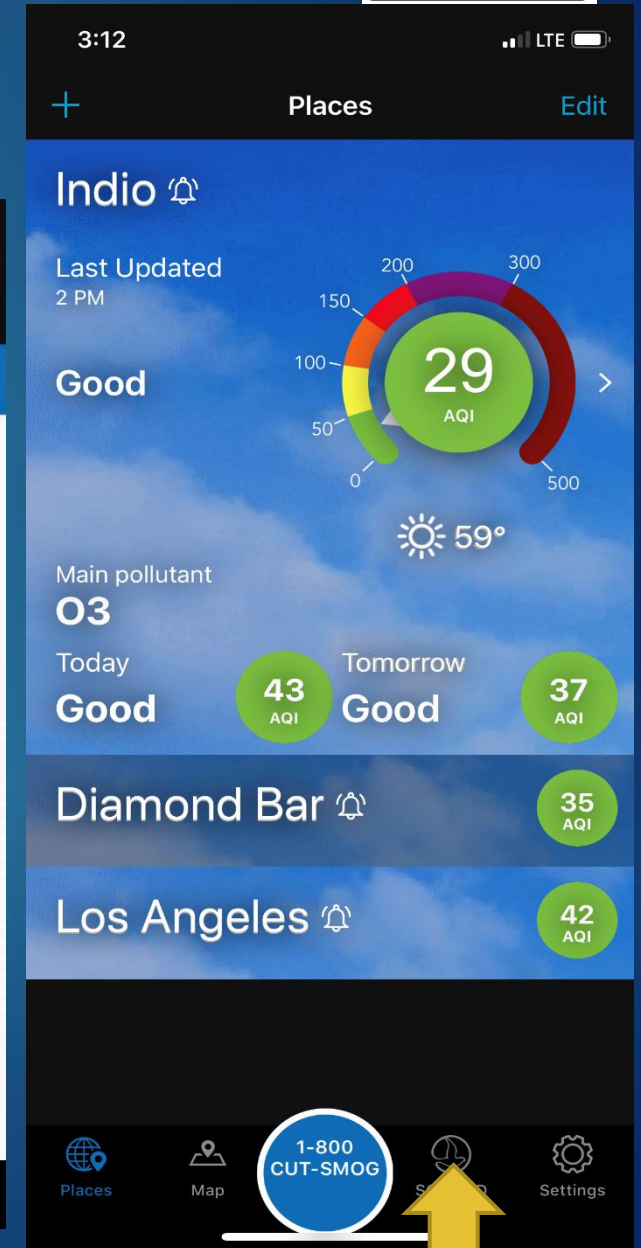
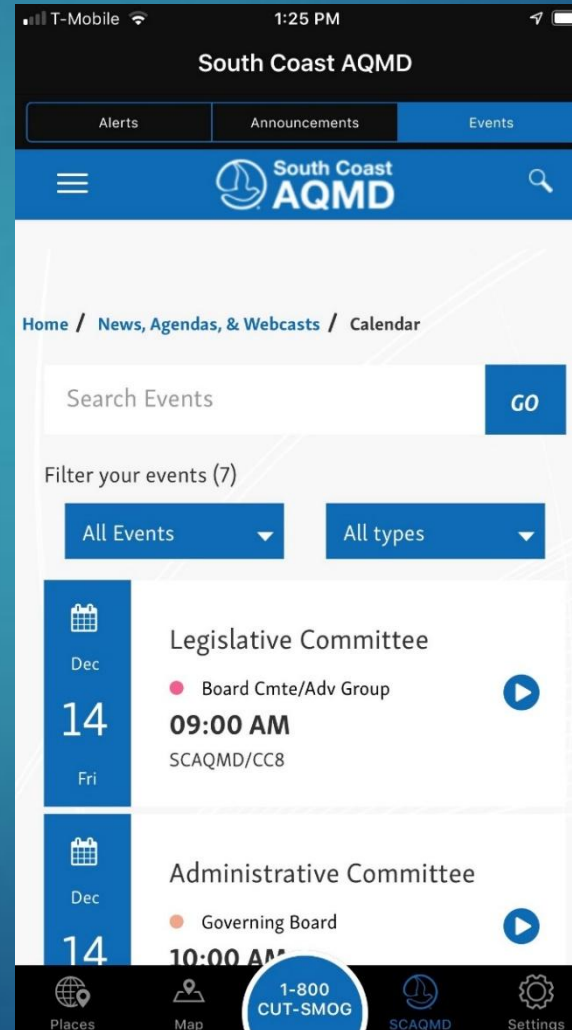




# How to Get Air Pollution Information – SmartPhones and Computers



- ▶ SCAQMD Phone App
  - ▶ Current Weather and Air Quality
  - ▶ Forecasted Air Quality
- ▶ SCAQMD AirAlerts ([www.AirAlerts.org](http://www.AirAlerts.org))
  - ▶ Forecasts and real-time alerts
- ▶ Salton Sea H2S Alerts ([www.saltonseaodor.org/](http://www.saltonseaodor.org/))
  - ▶ Real-time H2S data

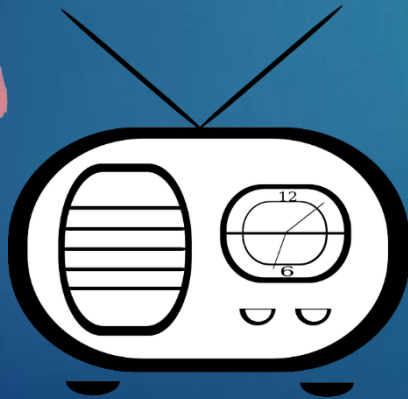


# How to Get Air Pollution Information – “Traditional Ways”



## ► Call 1-800-CUT-SMOG

- Daily Air Quality Forecasts (1-800-CUT-SMOG)
- Coachella Valley Rule 403.1 High-Wind Forecasts (909-396-2399)
- Agricultural and Prescribed Burn Forecasts (909-396-3355)



## ► SCAQMD Advisories and Press Releases – Issued for prolonged or severe air quality events



# Assembly Bill No. 1318



**AB 1318 (V. M. Perez) requires that funds be spent on emission reductions in the following areas:**

- At least 30 percent in environmental justice areas
- At least 30 percent on projects in close proximity to the plant
- The remaining 40 percent in any location within SCAQMD's four-county jurisdiction. While not required by AB 1318, the SCAQMD Board decided in February 2012 to dedicate this entire amount to projects in the Coachella Valley.

# Road Paving

**Purpose:** Reduce the amount of dust that is kicked up into the air from dirt roads, parking lots and construction sites



# Road Paving

## Three Projects:

- Torres Martinez Desert Cahuilla Indians (EJ)
- City of Desert Hot Springs
- Riverside County

**Before**



**After**



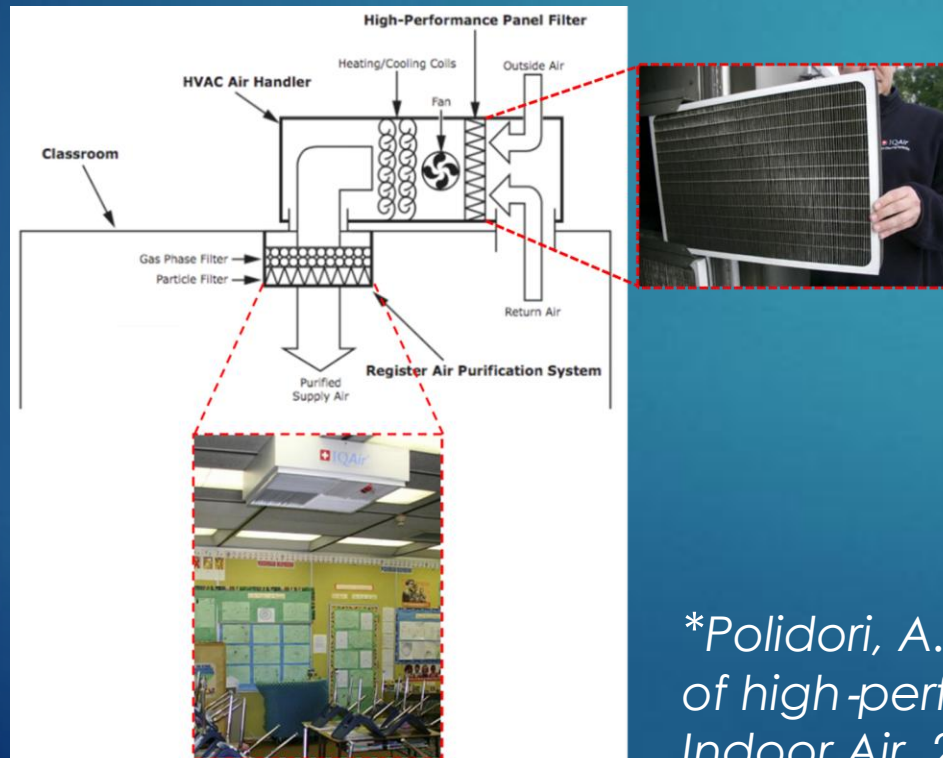


# High Performance Air Filtration

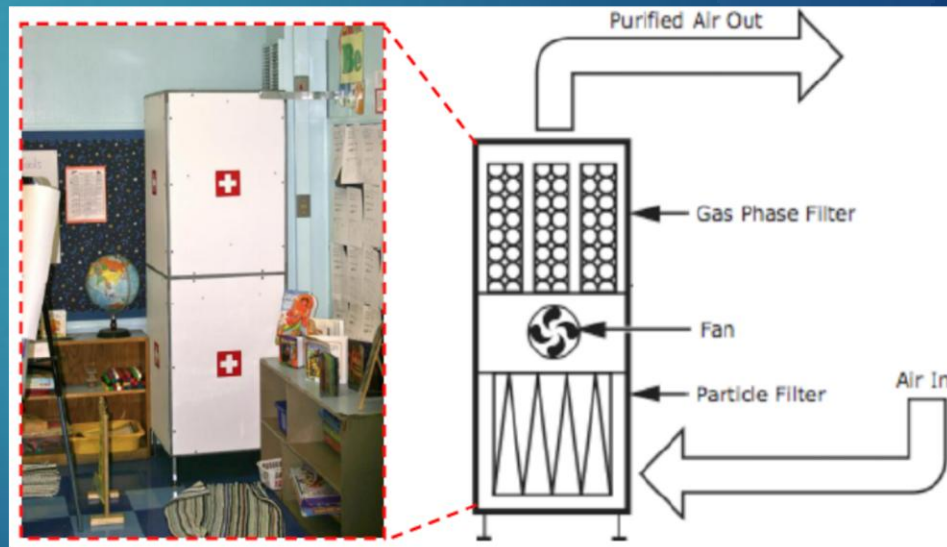
**Purpose:** Reduce the exposure air pollutants indoors, especially at schools located near freeways and other known sources

A pilot study\* conducted by SCAQMD in Southern California showed that air filtration technologies can remove an average of ~90 percent black carbon (BC), ultrafine PM (UFP), and PM<sub>2.5</sub>

## Register System



## Stand-Alone System



\*Polidori, A., Fine, P. M., White, V., & Kwon, P. S. (2013). Pilot study of high-performance air filtration for classroom applications. *Indoor Air*, 23(3), 185-195.

\$52.2 million in funding  
\$52.2 millones en fondos

# AB 1318 Emission Mitigation

## Mitigación de emisiones de AB 1318

2013-present

### Projects - *Proyectos*

New CNG and propane vehicles

*Nuevos vehiculos de  
propano y gas natural*



Road paving and landscaping - *Pavimentación y jardinería.*



Home weatherization  
*Climatización de casas*



School filtration  
*Filtros en escuelas*



CV link  
(In progress)  
*(En progreso)*



Solar  
Installations  
*Instalaciones  
Solares*



Fueling stations  
*Estaciones de  
abastecimiento*



### Location *Ubicación*

City of Coachella

Coachella Valley USD

City of Palm Springs

Palm Springs USD

Angel View (Palm Springs)

City of Desert Hot Springs

Find Food Banks

Desert Sands USD (La Quinta)

Sun Power Solar  
(Palm Desert)

Torres Martinez Desert  
Cahuilla Indians (Thermal)

Sunline Transit Agency

Riverside County

Border Valley Trading

College of the Desert

St. Elizabeth's of Hungary  
Food Pantry



# Other activities



- ▶ Salton Sea Management Program
- ▶ Specialized support to CARB Salton Sea air measurements
- ▶ Agricultural burning enforcement and methods evaluations
- ▶ Continue to engage with these communities for future efforts (i.e. potentially AB 617)