



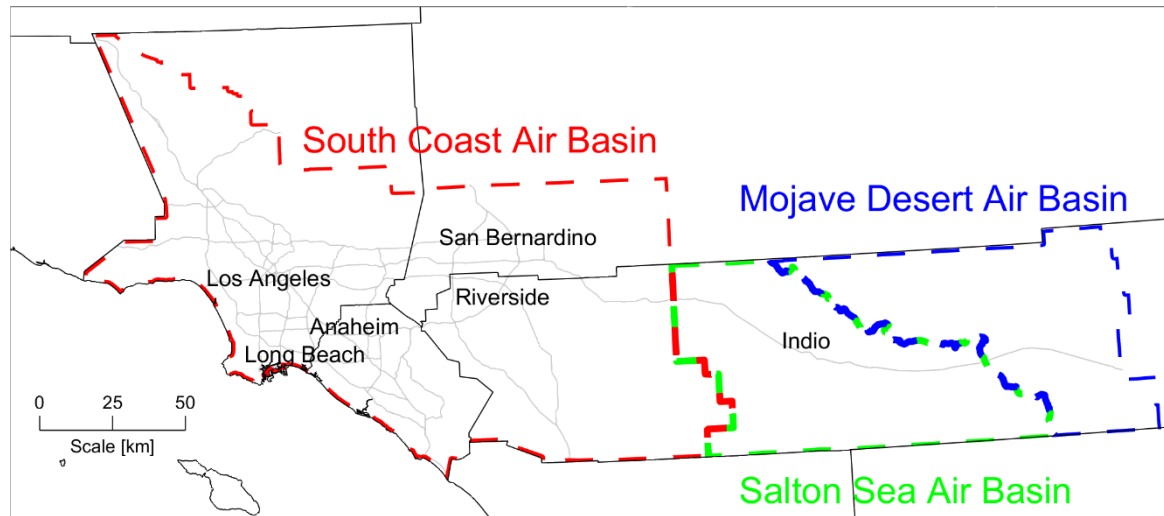
Communication Before, During, and After Exceptional Events

NACAA Public Outreach Committee
June 11, 2024

Scott A. Epstein PhD
Planning and Rules Manager
Air Quality Assessment & AB2588 Air Toxics “Hot Spots”
Program Planning, Rule Development, and Implementation
South Coast Air Quality Management District

The South Coast Air Quality Management District

- 17 million residents
- Three air basins
- South Coast AB is most polluted region in U.S.



Air Quality Advisories, Alerts, and Notifications

Advisories

- Issued by South Coast AQMD forecasters **BEFORE** and **DURING** events
- Disseminated at aqmd.gov and linked through Enviroflash
- Press release issued by Media team based on advisory

Alerts

- Issued by South Coast AQMD forecasters **BEFORE** and **DURING** events simultaneously with advisory
- Relayed by National Weather Service
- Disseminated through official NWS channels and displayed on commercial apps

Notifications

- Automatically pushed to users of the South Coast AQMD App **DURING** events based on real-time AQI
- Users set threshold for notification based on AQI level and locations of interest



General Guidelines when Advisories are Issued

- Goal is to issue advisories proactively rather than reactively
- Forecaster discretion applied based on recent advisories and pollutant levels along with any near-source sensitive impacted areas such as schools

PM10 Dust/Ash



Extended period of elevated PM10 expected that will reach at least USG AQI

Res. No Burn



24-Hour PM2.5 > 29 $\mu\text{g}/\text{m}^3$ forecasted in the South Coast Air Basin (Nov-Feb)

High Ozone



Widespread areas of unhealthy AQI or higher expected over several days

Wildfire Smoke



Fire greater than 200-400 acres that is expected to persist for several hours or more

Fireworks



July 4th and 5th in areas with historically high PM2.5 levels from fireworks

Salton Sea Odors



Extended episode of persistently high H2S in the Coachella Valley

Language [by Google Translate](#)

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Wildfire Smoke Advisory

www.aqmd.gov @SouthCoastAQMD

Valid Saturday 10:00 AM until Sunday 4:00 PM

WILDFIRE SMOKE ADVISORY
Sat, Jul 15, 2023 – Su, Jul 16, 2023

South Coast AQMD Jurisdiction
Approximate Fire Location
Areas of Potential Direct Smoke Impact

Current Conditions

- Two large wildfires are actively burning and producing smoke in Riverside County as of Saturday at 9:40 AM:
 - The Rabbit Fire is currently 4,500 acres
 - The Reche Fire is currently 437 acres
- Visit the [Cal FIRE/Riverside County Fire Department Twitter page](#) for more details
- Winds are currently transporting smoke towards the east and southeast into the Moreno Valley, Hemet, Beaumont, Banning, and the Coachella Valley
- Air quality index values reached **Hazardous** levels immediately adjacent to the fire in the overnight hours

Conditions may change quickly due to fire activity and weather. Download the [South Coast AQMD app](#) or visit [www.aqmd.gov/AQImap](#) to view current air quality in your neighborhood.

Show recent air quality trends (up to Saturday, 11:00 AM)

Forecasted Smoke and Air Quality Impacts

- Hot and dry conditions will continue throughout the day on Saturday and into Sunday
- Winds from the west will continue to push smoke towards the east and may result in Air Quality index levels that are **Hazardous** in areas impacted by smoke
- Light and variable winds during the overnight hours may result in the highest AQI levels in areas immediately adjacent to the fires
- Note that AQI levels may reach the **Unhealthy** category in the afternoon hours from high levels of ozone (smog) due to the current heat wave and are largely unrelated to the fires. See [South Coast AQMD Ozone Advisory](#)

Detailed Forecast

Saturday	Winds from the west will continue to push smoke towards the east, affecting neighborhoods in the Hemet area, Idyllwild, San Geronimo Pass and Coachella Valley. Ozone (smog) levels will also be elevated due to the heat wave affecting the region.
Saturday Evening/Sunday Morning	Light and variable winds may lead to increased smoke concentrations in areas immediate adjacent to the fires
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South Coast AQMD will issue an update if additional information becomes available.

⚠️ If you are in an area impacted by smoke:

- Limit your exposure by remaining indoors with windows and doors closed or seeking alternate shelter.
- Avoid vigorous physical activity.
- Run your air conditioning and/or an air purifier. If possible, do not use swamp coolers or whole house fans that bring in outside air.
- Avoid burning wood in your fireplace or firepit and minimize sources of indoor air pollution such as candles, incense, pan-frying, and grilling.
- If you must be outside, a properly fit N95 or P100 respirator may provide some protection.

For more information, visit [www.aqmd.gov/smokesafety](#).

Interactive Air Quality Advisories

- html-based interactive advisories deployed in Summer of 2023
- Replaced PDF advisories
- Mobile friendly with graphics that are responsive to screen width
- Integrated Google Translate tool with 120 languages
- Built advisory generation tool to easily create advisories in MATLAB App Designer

Language 

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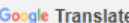
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Interactive Air Quality Advisories

Select Language 

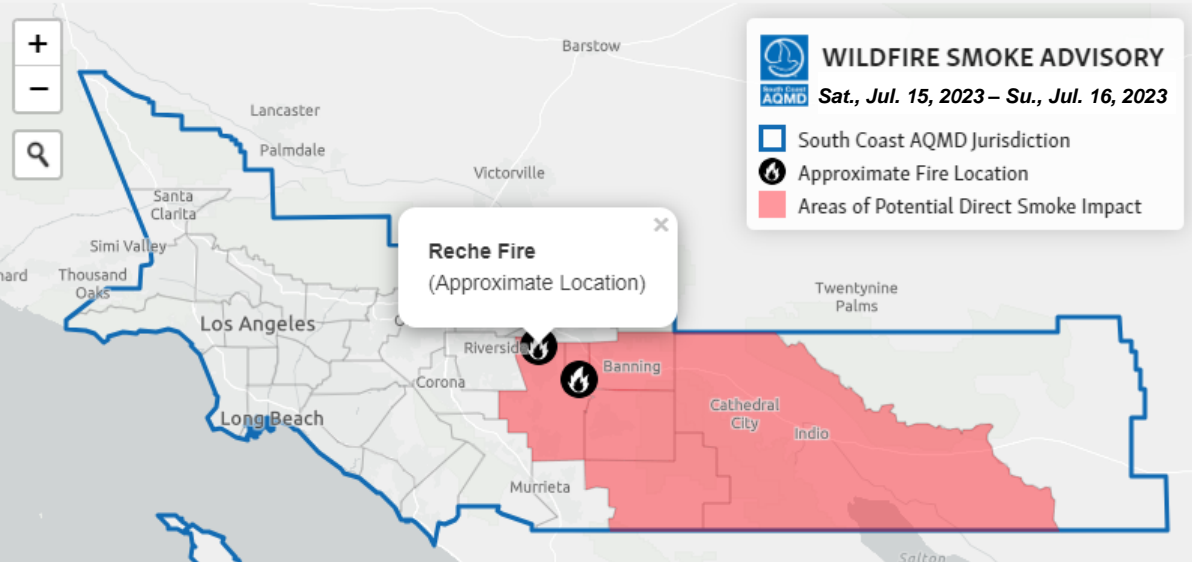
Powered by 

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Wildfire Smoke Advisory

www.aqmd.gov @SouthCoastAQMD

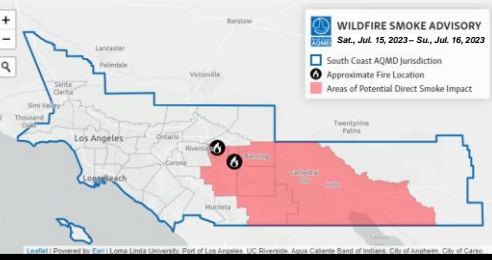
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Google Translate integration

Interactive web map with location search

Interactive Air Quality Advisories



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Recent Air Quality Index (AQI) Trends at Selected Sites

AQI is calculated using the EPA's NowCast method, which emphasizes recent levels when conditions change rapidly.

Air Quality Index (AQI)

- Hazardous
- Very Unhealthy
- Unhealthy
- Unhealthy for Sensitive Groups
- Moderate
- Good

Standard AQI Colors | More Accessible AQI Colors

Banning-central

JUL 15 07:00 AM
NowCast AQI: 159
Unhealthy

Mecca

Current conditions with expandable and interactive recent air quality trends chart

Forecaster chooses locations to display on bar charts

Language powered by Google Translate

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Wildfire Smoke Advisory

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Interactive Air Quality Advisories

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Impact summary and detailed forecast information

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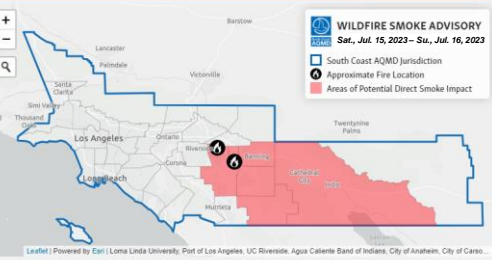
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Interactive Air Quality Advisories

Highlighted health recommendations

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Advisory Generation Tool

SCAQMD Air Quality Analysis System ver 1.7

File Take Screenshot Restart

- 100% PM2.5 Forecast
- Tom. PM2.5 Forecast
- Tod. PM10 Forecast
- Tom. PM10 Forecast
- Tod. NO2 Forecast
- Tom. NO2 Forecast
- Tod. CO Forecast
- Tom. CO Forecast
- Tod. Combined Results
- Tom. Combined Results
- Hourly PM2.5
- Hourly Ozone

Reporting

- Burning
- Second Day Burn Predi
- CBYB Prediction
- Final Forecast
- Output Files
- Phone System
- Weekly O3 Report
- POST FORECAST

Advisories

- General Advisory Generatio
- Check Before You Burn TES
- Publish HTML
- Wildfire Smoke A
- Wildfire Smoke B
- Wildfire Smoke C
- Wildfire Smoke D
- Windblown Dust and As
- Windblown Dust and As
- Check Before You Burn
- Salton Sea Odor
- Other Air Quality A
- Other Air Quality B

Startup Air Quality Meteorology Fire and Dust Model Setup Model Results Reporting Advisories Exceptional Events

General Advisory Generation Check Before You Burn TESTING Publish HTML Wildfire Smoke A Wildfire Smoke B Wildfire Smoke C Wildfire Smoke D Windblown Dust and Ash A Windblown Dust and Ash B Check Before You Burn Salton Sea Odor Other Air Q

Advisory Type Smoke Issue Date 29-Jul-2023 1:00 PM Reset All Fields to Default Folder Name C:\Users\sepstein\AppData\Local\Temp\ForecastApp_20231018T135854\advisory1

Forecast Area	#	Selected	Hide Fcst
Central Orange County	17	<input type="checkbox"/>	<input type="checkbox"/>
North Coastal Orange County	18	<input type="checkbox"/>	<input type="checkbox"/>
Saddleback Valley	19	<input type="checkbox"/>	<input type="checkbox"/>
Central Coastal Orange Co...	20	<input type="checkbox"/>	<input type="checkbox"/>
Capistrano Valley	21	<input type="checkbox"/>	<input type="checkbox"/>
Corona-Norco	22	<input type="checkbox"/>	<input type="checkbox"/>
Metropolitan Riverside County	23	<input type="checkbox"/>	<input type="checkbox"/>
Perris Valley	24	<input type="checkbox"/>	<input type="checkbox"/>
Lake Elsinore	25	<input type="checkbox"/>	<input type="checkbox"/>
Temecula Valley	26	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Anza Valley	27	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Hemet-San Jacinto Valley	28	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
San Geronio Pass	29	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Coachella Valley	30	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
East Riverside County	31	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Northwest San Bernardino ...	32	<input type="checkbox"/>	<input type="checkbox"/>
Southwest San Bernardino ...	33	<input type="checkbox"/>	<input type="checkbox"/>
Central San Bernardino Valley	34	<input type="checkbox"/>	<input type="checkbox"/>
East San Bernardino Valley	35	<input type="checkbox"/>	<input type="checkbox"/>
West San Bernardino Mount...	36	<input type="checkbox"/>	<input type="checkbox"/>
Central San Bernardino Mo...	37	<input type="checkbox"/>	<input type="checkbox"/>
East San Bernardino Mount...	38	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Check All Areas Remove All Areas Hide All Areas Show All Areas

Date and Location Current Conditions Current Conditions Plot Forecast

Title

Advisory Subtype Wildfire

Advisory Title Wildfire Smoke Impacts in River

Description Wildfire smoke will lead to unhealthy air quality in Riverside County. Click the arrow for details.

Advisory Start Day 29-Jul-2023 Start Time 1:30 PM

Advisory End Day 30-Jul-2023 End Time 8:00 PM

Name	Lat	Lon
Bonny Fire	33.4769	-116.7247
<missing>	NaN	NaN
<missing>	NaN	NaN
<missing>	NaN	NaN
<missing>	NaN	NaN

Put on Map Above to Check Location

- Location
- Title
- Start Day and Time
- End Day and Time
- Fire Location
- Current Cond. Text
- Current Cond. Plot
- Fcst. Summary Text
- Detailed Forecast

Open Advisory Files Spell Check Check Inputs & Make New Advisory View Today's Advisory Load Advisory Revise Advisory

Clear Diary Save Diary

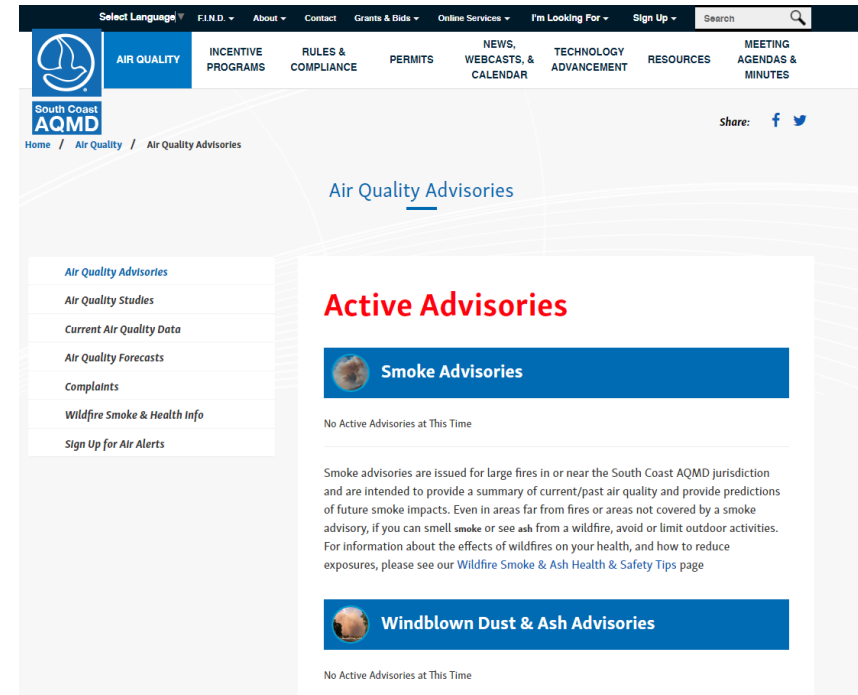
18-Oct-2023 14:00:40: Finished autosaving air values
 18-Oct-2023 14:00:53: 18-Oct-2023 is not in CBYB period
 18-Oct-2023 14:00:53: 19-Oct-2023 is not in CBYB period
 18-Oct-2023 14:00:53: 20-Oct-2023 is not in CBYB period
 18-Oct-2023 14:02:21: Finished autosaving all values
 18-Oct-2023 14:02:47: Finished autosaving all values
 18-Oct-2023 14:02:48: 18-Oct-2023 is not in CBYB period
 18-Oct-2023 14:02:48: 19-Oct-2023 is not in CBYB period
 18-Oct-2023 14:02:48: 20-Oct-2023 is not in CBYB period

Previous Next



Dissemination of Air Quality Advisories

- Hosted at www.aqmd.gov/advisory
- Linked from the aqmd.gov homepage and on the South Coast AQMD mobile app
- Sent to 33,000 Enviroflash subscribers
- Extensive Media outreach
 - Press release issued from advisory
 - Impacted areas automatically sent to media in kml file



Los Angeles Times
Smoke forecast to clear in L.A. area

Low-pressure cold front to improve air quality and reduce heat this weekend.

BY HAYLEY SMITH

Residents in Los Angeles County can breathe a little easier this weekend, as air



Air Quality Alerts Relayed by the National Weather Service

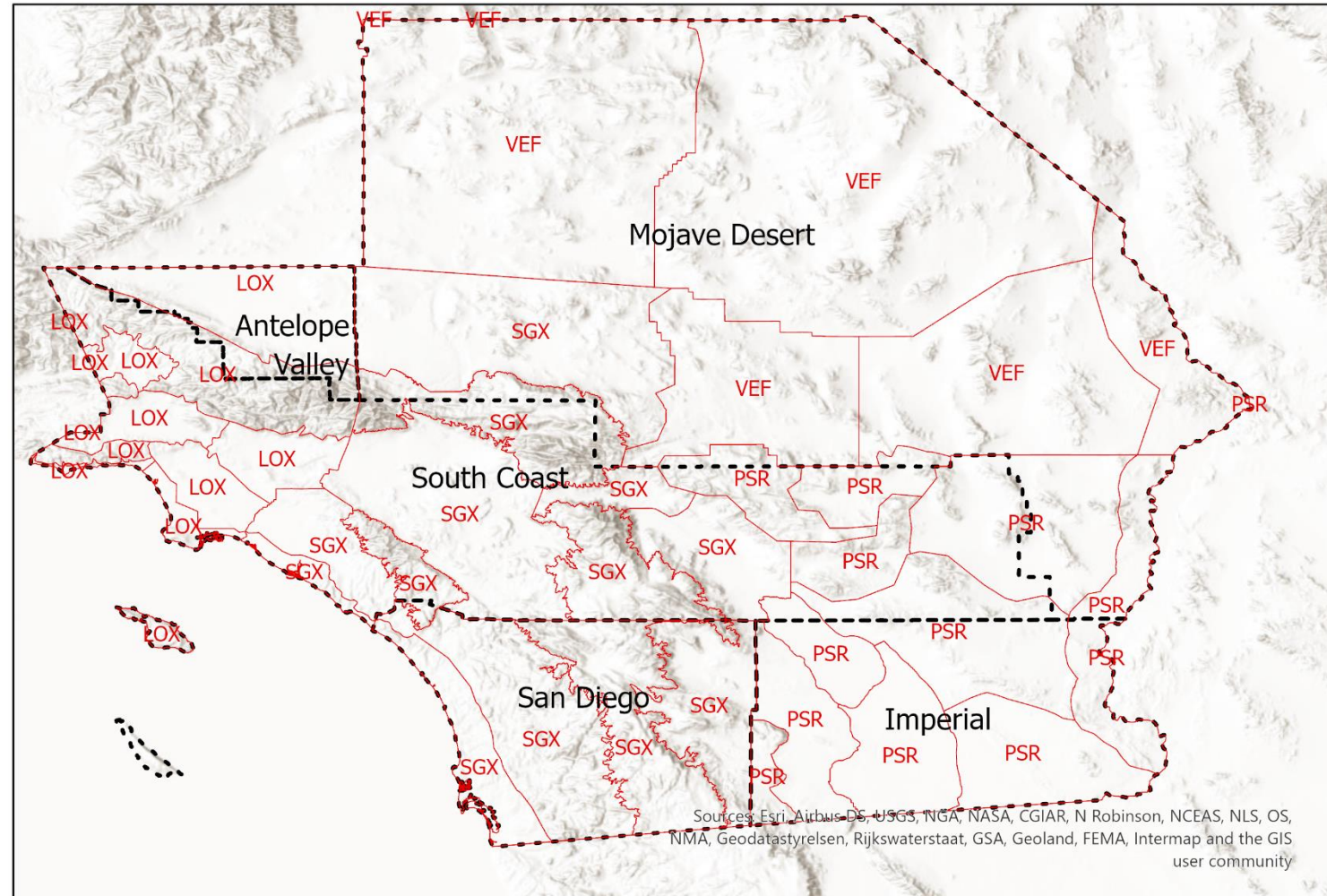
- Collaboration with Southern California Air Districts and NWS offices to deploy air quality alerts through official NWS channels

Air Districts

- South Coast AQMD
- Imperial County APCD
- San Diego APCD
- Mojave Desert AQMD
- Antelope Valley AQMD

NWS Offices

- NWS Los Angeles/Oxnard (LOX)
- NWS San Diego (SGX)
- NWS Phoenix (PSR)



Software for Deployment of Air Alerts

- Developed software in-house using MATLAB App Designer
- Alerts are generated easily with dropdown menus
- Maintains consistency among agencies and avoids errors

South Coast Air Quality Management District

Software for Deployment of Air Alerts

Interactive
NWS Zone
Selection

Alert
Preview

- Developed software in-house using MATLAB App Designer
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Tools to fill data in template

Advisory Type: PM10 DUST
Issue Date: 01-Apr-2022
Issue Time: 15:45
Expire Date: 02-Apr-2022
Expire Time: 23:59
Expiration date and time: tomorrow
Primary Issuer: South Coast AQMD
Issue/update/extend: Issue

Footer: Use Default Footer
To view current and forecasted air quality levels, visit the South Coast Air Quality Management District website at aqmd.gov or download the mobile app at www.aqmd.gov/mobileapp. Additional details for this air quality alert are available at www.aqmd.gov/advisory.

Cities: Los Angeles County San Gabriel Valley
Pasadena, San Gabriel, and Pomona

Advisory Folder: E:\MET\Forecast_Files\FosMag\ADVISORIES\20220401

Actions: Show in Explorer, Open Advisory, Help, Simulate publish failure, Test Publish (To Developer), Test Publish (To NWS Offices), Send Error Log to Developer

Advisory Text: AEUS76 KLOX 011545
AQALOX
Air Quality Alert Message
Relayed by National Weather Service Los Angeles-Donard CA
345 PM PDT Fri Apr 1 2022
CAZ548-022359
Los Angeles County San Gabriel Valley-
Including the cities of Pasadena, San Gabriel, and Pomona
345 PM PDT Fri Apr 1 2022
AIR QUALITY ALERT DUE TO ELEVATED PARTICULATE MATTER LEVELS FROM WINDBLOWN DUST...
The South Coast AQMD has issued an air quality alert due to increased particulate matter from blowing dust. The air quality alert is in effect until tomorrow.
In areas directly impacted by high levels of windblown dust, limit your exposure by remaining indoors with windows and doors closed and avoiding vigorous physical activity. Run your air conditioner or an air purifier. If temperatures allow, avoid using whole house fans or swamp coolers that bring in outside air.
Exposure to high particle pollution levels can cause serious health problems, including asthma attacks, heart and lung disease symptoms, and increased risk of respiratory infections. People with heart or lung diseases should follow their doctor's advice for dealing with episodes of unhealthy air quality. Children, older adults, and people with respiratory or heart disease should avoid prolonged exposure and strenuous activities when particle pollution levels are high.
To help minimize outdoor particulate levels:
Carpool, telecommute, reduce trips, or take public transportation

Publish

Dissemination of Air Alerts

- Relayed through official NWS channels
- Appears on various commercial weather apps and Amazon Alexa
- Additional visibility for the media

Air Quality Alert Message
Relayed by National Weather Service San Diego CA
945 AM PDT Wed Oct 11 2023

CAZ061-065-121300-
Coachella Valley-
Including the cities of Indio, Palm Springs, Cathedral City, Palm Desert, Palm Desert Country, La Quinta, and Coachella
San Geronio Pass Near Banning-
Including the cities of Banning and Desert Hot Springs

945 AM PDT Wed Oct 11 2023

...AIR QUALITY ALERT DUE TO ELEVATED PARTICULATE MATTER LEVELS FROM WINDBLOWN DUST...

The South Coast AQMD has issued an air quality alert due to increased particulate matter from blowing dust. The air quality alert is in effect until 6AM on Thursday.

In areas directly impacted by high levels of windblown dust, limit your exposure by remaining indoors with windows and doors closed and avoiding vigorous physical activity. Run your air conditioner or an air purifier. If temperatures allow, avoid using whole house fans or swamp coolers that bring in outside air.

Exposure to high particle pollution levels can cause serious health problems, including asthma attacks, heart and lung disease symptoms, and increased risk of respiratory infections. People with heart or lung diseases should follow their doctor's advice for dealing with episodes of unhealthy air quality. Children, older adults, and people with respiratory or heart disease should avoid prolonged exposure and strenuous activities when particle pollution levels are high.

To help minimize outdoor particulate levels:

- Carpool, telecommute, reduce trips, or take public transportation
- Slow down if driving on dirt roads
- Stabilize loose soils

Levels of particulate matter can vary hour by hour and by location depending on wind conditions.

To view current and forecasted air quality levels, visit the South Coast Air Quality Management District website at aqmd.gov or download the mobile app at www.aqmd.gov/mobileapp. Additional details for this air quality alert may be available at www.aqmd.gov/advisory.

NATIONAL WEATHER SERVICE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

News Headlines
• [Wet Water Year Oct 2022-Sep 2023 Across SW California](#)
• [Read our Forecast Discussion Here](#)

Your local forecast office is **Los Angeles/Oxnard, CA**

Hazardous Weather Conditions

- [Air Quality Alert until July 22, 8:00 PM PDT](#)

En Español

Current conditions at **Los Angeles / USC Campus Downtown (KCQT)**
Lat: 34.02355°N Lon: 118.29122°W Elev: 179.0ft.

Fog
NA° F
11°C

Humidity N/A
Wind Speed N 0 MPH
Barometer 29.94 in (1013.89 mb)
Dewpoint N/A
Visibility 0.25 mi

Click a location below for detailed forecast.

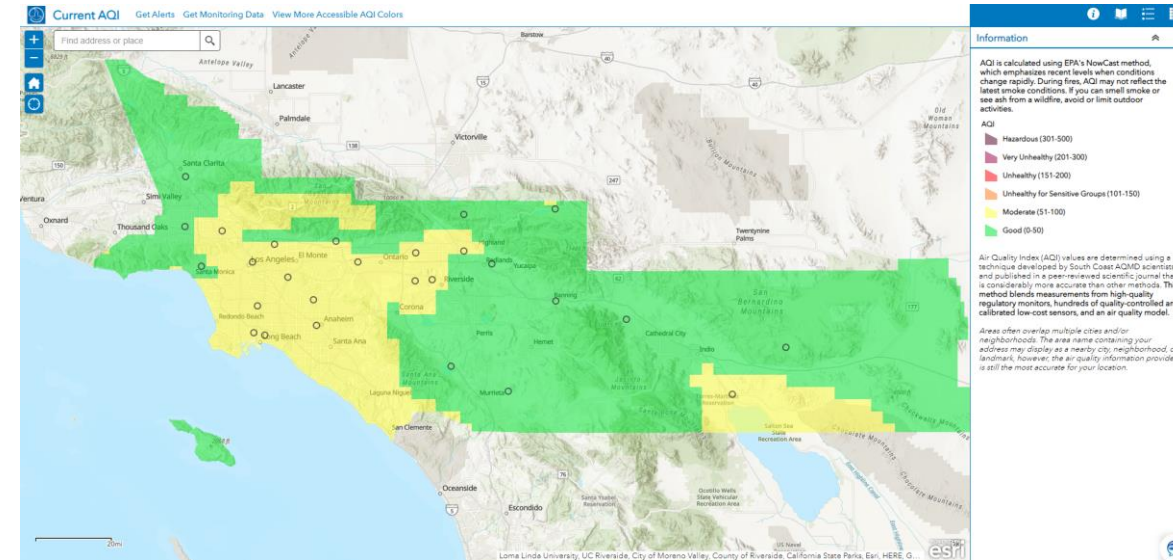
Watches, Warnings & Advisories
Small Craft Advisory
Beach Hazards Statement
Air Quality Alert

Last Map Update: Wed, Dec. 21, 2022 at 7:57:12 pm PST



Air Quality Notifications

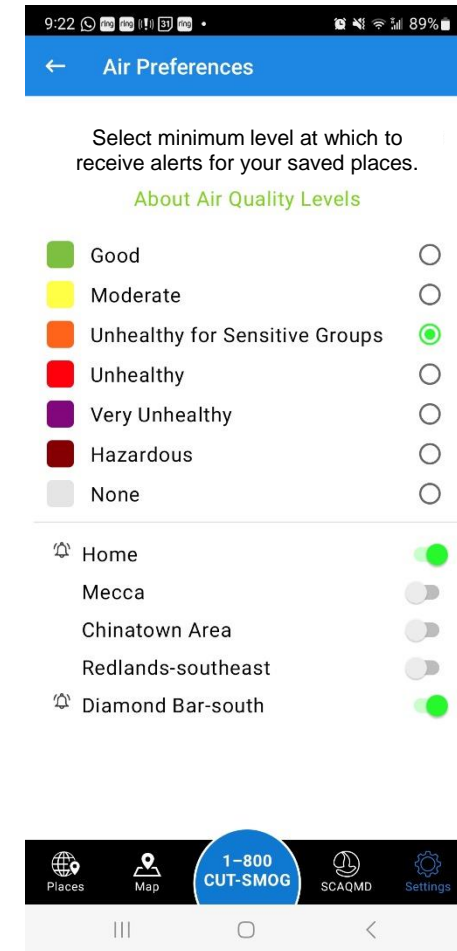
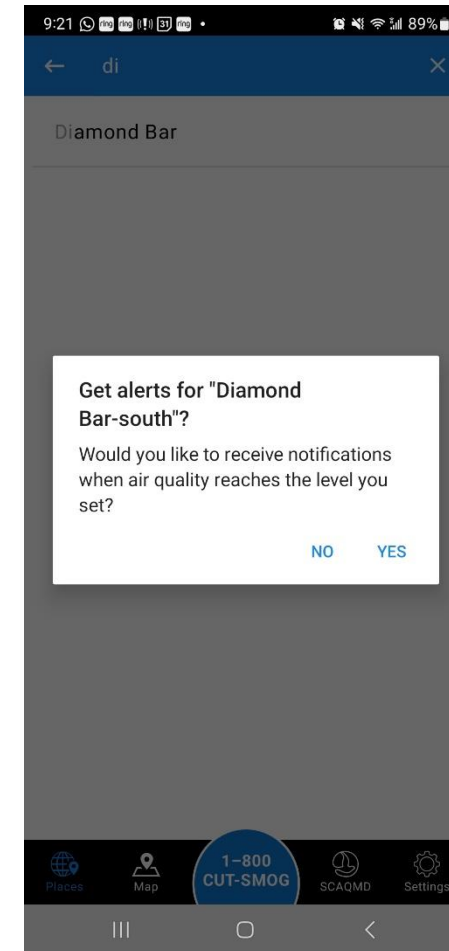
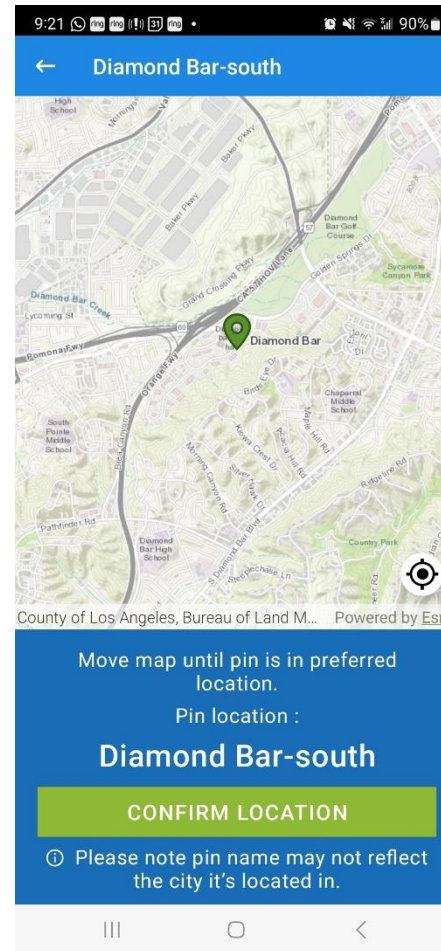
- Developed real-time air quality map for website and mobile app (deployed Nov. 2020)
- Map combines regulatory monitors, low-cost sensor data, and AQ model outputs (NAQFC) weighted by their relative uncertainties
- AQI map has high level of accuracy when compared to other methods and avoids common public misunderstandings of AQ data



Schulte, N., Li, X., Ghosh, J.K., Fine, P.M., Epstein, S.A. **Responsive High-Resolution Air Quality Index Mapping Using Model, Regulatory Monitor, and Sensor Data in Real-Time**, 2020, *Environmental Research Letters*, **15** 1040a7

Air Quality Notifications

- App users can set favorite places
- Notifications can be turned on for each place
- If AQI reaches selected category, a notification is pushed to the user's device.
- A second notification is sent if AQI goes back below threshold.



Reducing Barriers for Sharing AQI Data with the Media



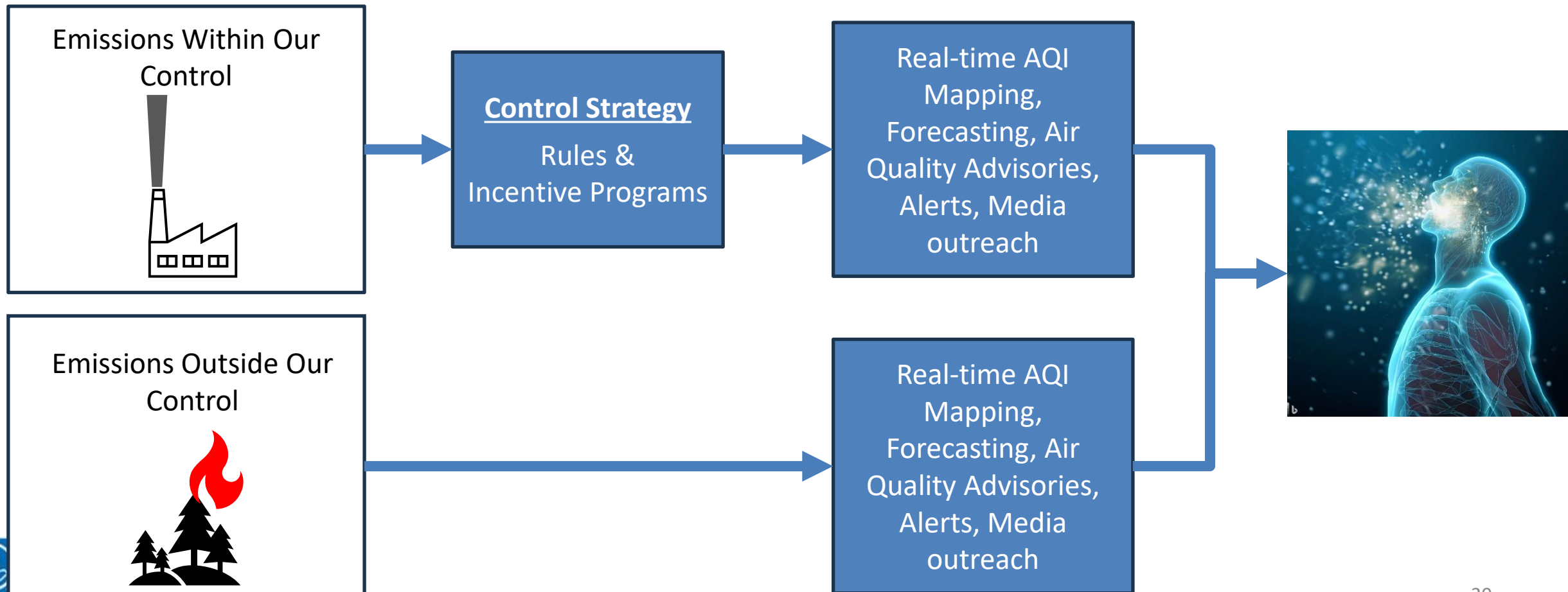
<http://www.aqmd.gov/assets/kml/CurrentAQI.kml>

- Conducted outreach with local media to determine what air quality products they were interested in
- Built scripts to generate hourly AQI data in kml format that news agencies can pull directly
- Provide documentation
 - Data access and citation/logos
 - Explain data (AQI, how it is determined, jurisdiction coverage, invalid data)
- Email notifications during data outages
- In the process of deploying forecast map data in kml format

Communication After Exceptional Events

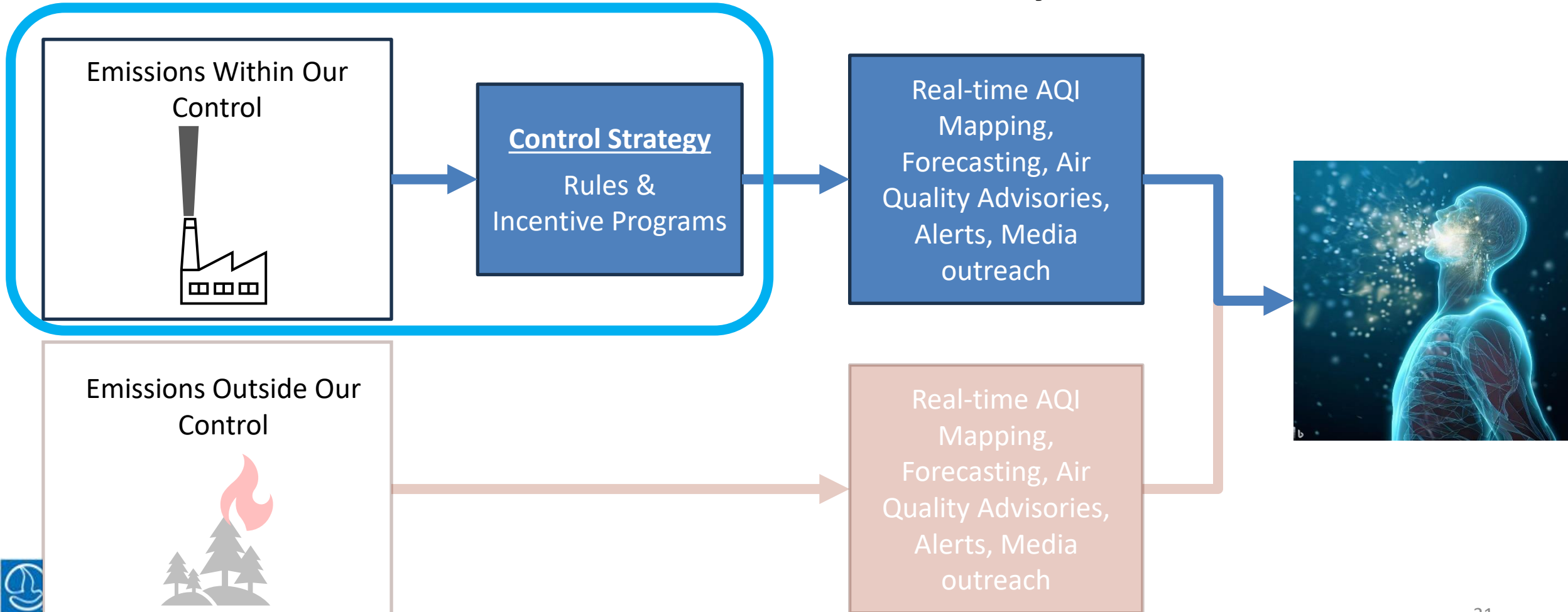


Tools for Reducing Public Exposure to Poor Air Quality

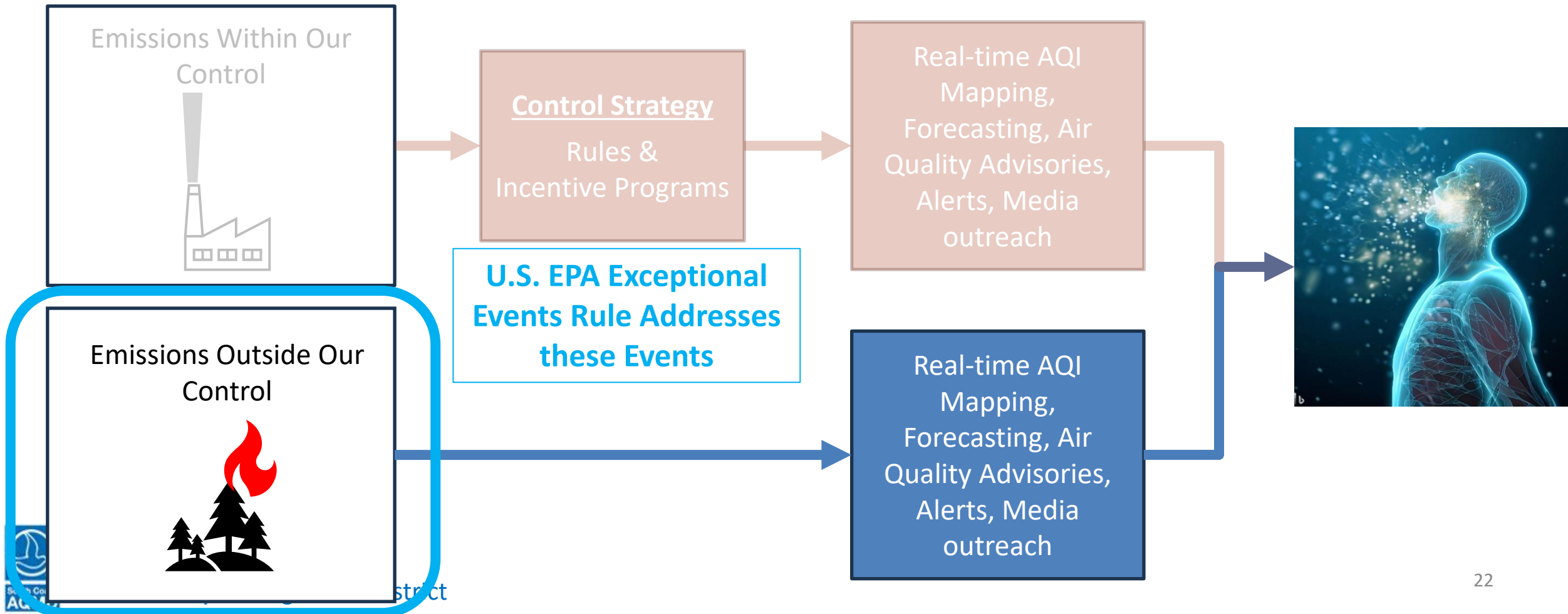


Air Quality Standards
Designed to Inform Control
Strategy and Reduce
Exposure from this Route

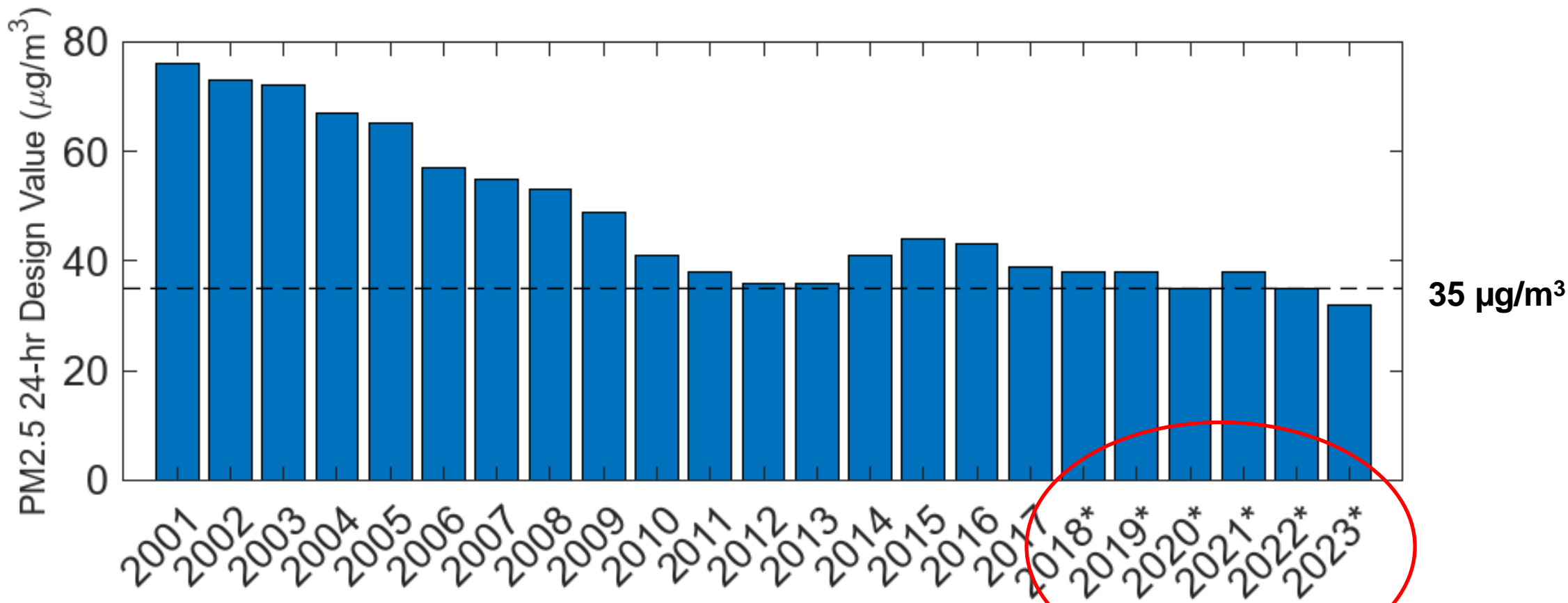
ducing Public Exposure to Poor Air Quality



Tools for Reducing Public Exposure to Poor Air Quality



South Coast Air Basin 24- hour PM2.5 Trend

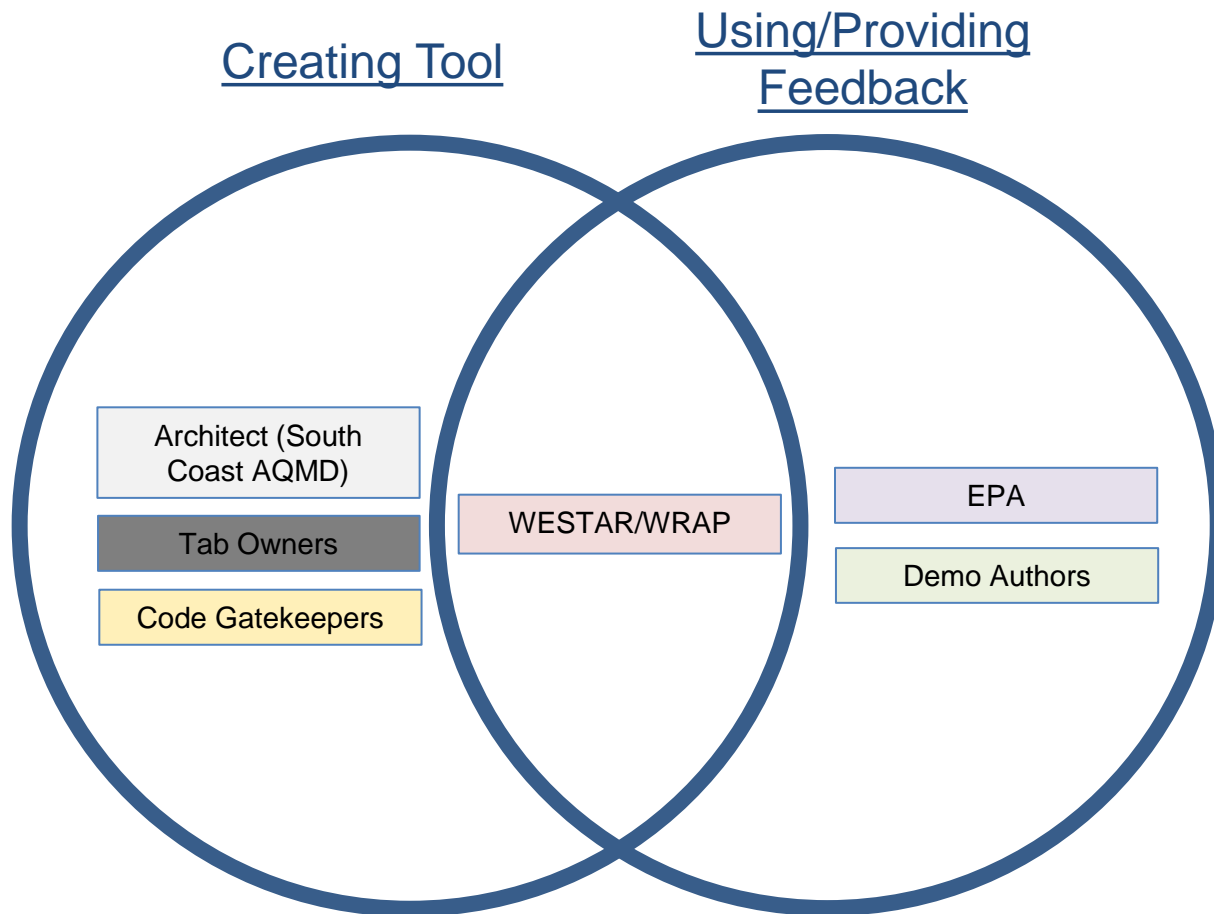


*Data likely to be approved as exceptional events by U.S. EPA were removed.

EEs removed from trend analysis



Exceptional Event Demonstration Tool



- South Coast AQMD spearheaded a collaboration with WESTAR/WRAP and 21 other institutions starting in July 2022
- Interactive web-based software using R-shiny platform
 - Development can be completely conducted by scientists
- Currently in development, but enough complete to be useful
- Tool will automate much of the EE demonstration process for several types of events
- AQ data retrieval and visualization tools can be used in non-EE demo analyses ²⁴

General Layout

Tabs to walk through creating EE Demo

Exceptional Events Demonstration Development Tool

General Information Event Description Time Sensitive Initial Notification Non-Daily Sections Clear Causal Compile Documents For Contributors

Purpose of Tool:

The purpose of this app is to quasi-automate some of the tasks involved in preparing an Exceptional Events (EE) Demonstration for submission to the EPA. **Use of this app in no way guarantees EPA concurrence for any EE demo submitted to the EPA. EE demos created using this app are subject to the same review process as EE demos that do not use this app.** This interactive app lays the ground work for automating much of the technical data collection required in Exceptional Event Demonstrations. This online tool is a collaborative project among air quality regulatory agencies. It is, and will continue to be, a work in progress. If you are interested in contributing to this project, please contact [Rhonda Payne at WESTAR](#) or [Jay Baker at WESTAR](#). Please also see the 'For Contributors' tabs. Both R coders and non-coders are welcome to contribute.

General Instructions:

To start an EE demo, fill out the information on the 'Event Description' tab. Save the resulting Event Description file (EventDescriptionValues.csv) to a folder on your local computer that is dedicated to this EE Demo. This local folder will be referred to as the project folder. Which tabs appear or disappear depends on the Event Type and Report Type selected on the Event Description tab. Note that all tabs controlled by Event Type are visible if 'Multi Type' is selected, but data cannot be downloaded or plotted on the Event Description page with this selection.

Once the Event Description page is done, most of the other tabs can be used in any order. Be sure to download files created on each tab and save them to the project folder. No data is stored within the app from one session to another, so the files must be saved to the local project folder for future use. In general, most tabs will create 1) a small csv file referred to as the 'Meta file' used for tracking file names for the main report, 2) a zip file containing one Word document for each day of the Event or just one Word document for non-daily tabs, 3) another Meta file for the appendix, and 4) another zip file containing Word document(s) for the appendix. The Word documents will generally end in _Draft.

IMPORTANT: Before you make edits to the _Draft Word files, it is important to change _Draft in the file name to _Edited. This way, your edits won't be over-written if you happen to re-run the tab that created the Word file. If both _Draft and _Edited versions of the same Word file are uploaded on the Compile Documents tab, the _Edited version will be used for compiling and the _Draft version will be ignored.

Tabs create many small Word files

Word files are merged to create report



Example: Output from Satellite Tab

Satellite Report for 2020-09-12

Figure [X] shows a NASA Worldview satellite image of the South Coast Air Basin taken on 2020-09-12 contrasted with a similar view from 2020-09-04 ([BEFORE/AFTER] the Bobcat and El Dorado Fires). The Worldview image from 2020-09-12 shows [WRITE DESCRIPTION OF SMOKE IN IMAGE, E.G., WIDESPREAD SMOKE]. The image also shows [WRITE DESCRIPTION, E.G., A FEW, MANY] thermal anomalies (orange dots) in the areas of the Bobcat and El Dorado Fires, indicating that the Bobcat and El Dorado Fires were [WAS/WERE] [WRITE DESCRIPTION, E.G., ACTIVE ON 2020-09-12?].

1st page of output satellite file for 2020-09-12

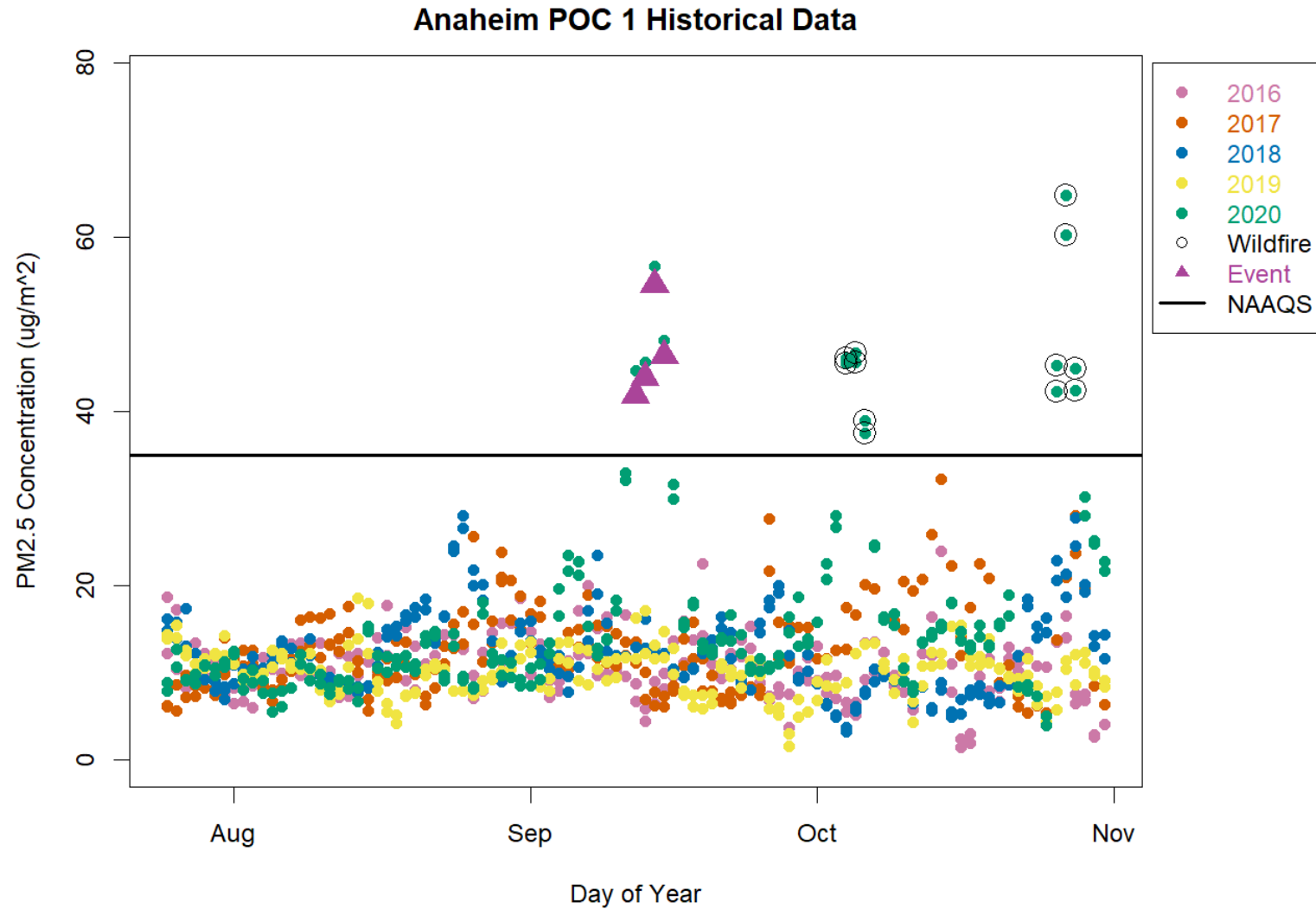
Word file is filled in with information provided

2nd page of output satellite file for 2020-09-12



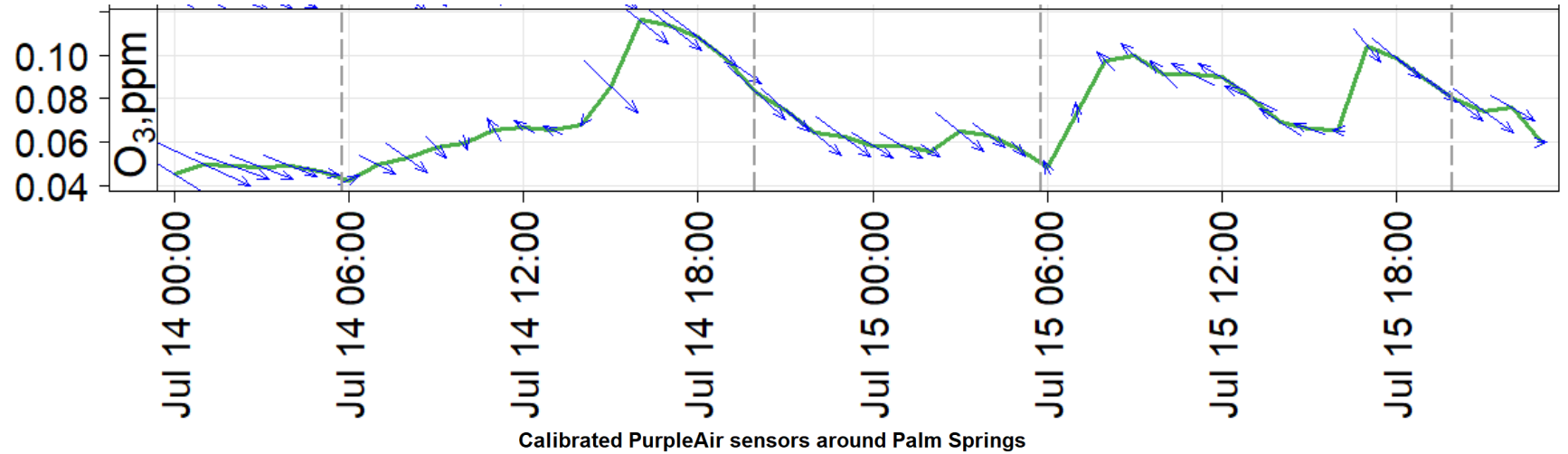
Figure [X] Worldview Satellite Image of the South Coast Air Basin for 2020-09-04 (top) and 2020-09-12 (bottom). The orange dots are thermal anomalies. Images can be viewed online:
<https://wvs.earthdata.nasa.gov/api/v1/snapshot?REQUEST=GetSnapshot&TIME=2020->

Example Historical Analysis Output

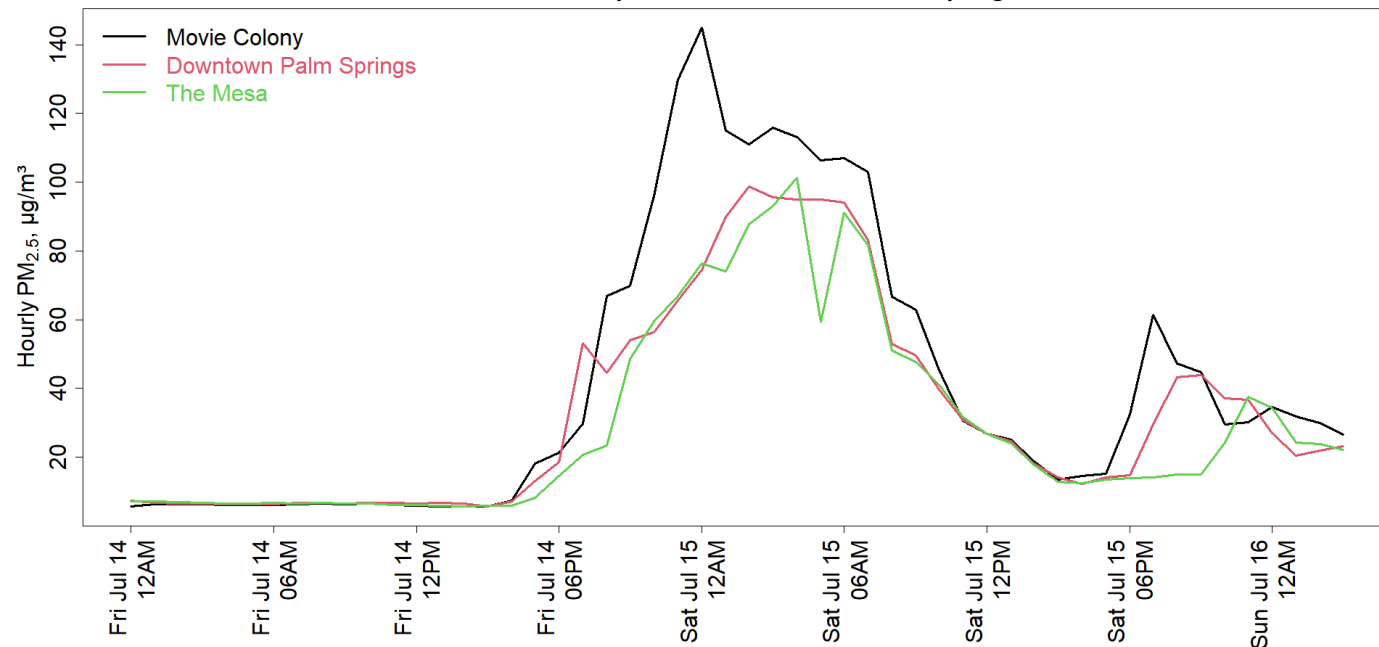


Example: pollutant timeseries

O₃ & wind vectors



Historical PurpleAir data with EPA calibration applied (need to supply your own API key)



Example: O3 Key Factor #2 Tiering calcs.

date	value	units_of_measure	Five_yr_99th_pctile	Fourth_high_in_latest_yr	Tiering_threshold	O3 Tier II key factor 2, Y/N
2023-07-14	0.093	Parts per million	0.085	0.085	0.085	Yes
2023-07-15	0.086	Parts per million	0.085	0.085	0.085	Yes
2023-07-16	0.075	Parts per million	0.085	0.085	0.085	No
2023-07-17	0.074	Parts per million	0.085	0.085	0.085	No



Why and How to Get Involved

App is useful even before it is complete



Tabs can be sub-divided if people want to contribute to part of a topic area



- Contributing to the tool development may be the fastest route to completing EE Demos for your agency especially if multiple EE Demos are needed



The people who are involved in developing, testing, or using the app are the people who will have a say in what the app can do



Coders and Non-Coders Welcome
WESTAR/WRAP Coordination Hub:

Rhonda Payne rpayne@westar.org

Jay Baker jbaker@westar.org



Conclusions

- Important to convey to the public that even though data collected during exceptional events may be removed from design value calculations, we have an extensive program to reduce exposure to poor air quality during these events
 - Combination of proactive (Advisories & Alerts) and reactive (Notifications) in addition to daily air quality forecast help the public reduce their exposure to poor air quality
- Tools to issue advisories/alerts and develop exceptional event demonstrations help reduce staff time requirements, improve accuracy, and increase responsiveness



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Melissa Maestas,
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Qijing (Emily) Bian,
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Air Quality Specialist
Masoud Fallah
Shorshani, PhD



Air Quality Specialist
Xiang Li , PhD
(now QA Supervisor
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AQMD)

Thank You!

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South Coast
Air Quality Management District