Air Quality Forecast for the South Coast Air Quality Management District (South Coast AQMD)

www.aqmd.gov/forecast

The air quality forecast is a prediction of air pollution for the next one or two days. South Coast AQMD staff use weather forecasts, air pollution measurements, satellite data, and mathematical models to predict particle ($PM_{2.5}$ and PM_{10}), ozone, nitrogen dioxide, and carbon monoxide concentrations. Forecast models are tools for making predictions, which are trained and evaluated with air pollution measurements. Traditionally, South Coast AQMD staff issued a daily air quality forecast summarizing conditions expected over the entire day for 45 geographical areas throughout the region. However, with new models developed and maintained by NOAA[1] scientists, South Coast AQMD staff can now issue hourly forecasts of $PM_{2.5}$ and ozone for the next day. These models are customized using local measurements and state-of-the-science models of air pollution levels, resulting in more accurate predictions. The predicted pollutant levels are reported as an Air Quality Index (AQI). Higher AQI means that air pollution levels are higher, potentially resulting in greater health concerns for the exposed population. The AQI is divided into six categories and each category is symbolized by a color.

Example Forecast

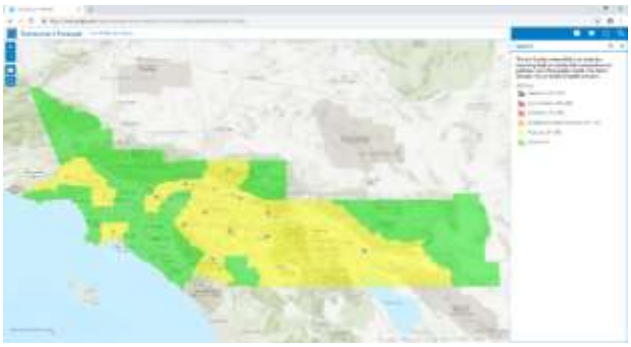
Area	Forecast Area	AQI	AQI Description	Pollutant	Cleanest Time of Day *
1	Central Los Angeles County	85	MODERATE	PM2.5	Cleanest from 6 AM to 1 PM
2	Northwest Coastal Los Angeles Co.	40	GOOD	PM2.5	Similar all day

How can I use the Forecast?

Check the forecast to see general information about air quality. **You can check the forecast AQI, AQI Graph, and Cleanest Time of the Day to plan outdoor activities,** like exercise. When the AQI is unhealthful, you can choose to reschedule strenuous outdoor activities to times of the day when the predicted AQI is lower, like the Cleanest Time of the Day.

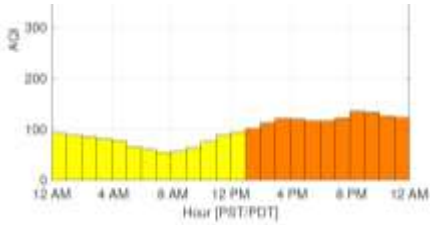
Forecast Summary PDFs list the predicted AQI for the entire day within each of the 45 forecast areas. The AQI Description is colored by the predicted AQI category for the day.

Forecast Maps show the predicted AQI for the entire day within 38 forecast areas. Each forecast area is colored by the predicted AQI category for the day. Click on a forecast area to see more info about the forecast and access an AQI time-series Graph.



The **Cleanest Time of the Day** is when the predicted AQI (based on $PM_{2.5}$ and ozone) is lowest and more than 10 AQI points below than the predicted daily average AQI.

AQI Graphs depict how the AQI is predicted to change throughout the day in that area. The height of each bar is the AQI value and each bar is colored by the AQI category.



Tips

Visit www.aqmd.gov/AQI to learn about AQI

The actual AQI may be different from the predicted AQI. Users should also check the current AQI at www.aqmd.gov/aqimap to plan outdoor activities.

The AQI Graph and Cleanest Time of the Day are based only on $PM_{2.5}$ and Ozone, which are the pollutants that typically drive the AQI. During high wind events, PM_{10} levels can lead to unhealthful air quality.

Visit www.aqmd.gov/advisory to view current air quality advisories for the region

[1] National Oceanic and Atmospheric Administration

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Air Quality Product	Description	When Might I Use This?	What Air Pollutants are Included?
Forecast Summary PDF	Lists the predicted AQI for the entire day within each of the 45 forecast areas.	Plan outdoor activities or precautionary measures for today and tomorrow. View the predicted AQI in a source receptor area.	$PM_{2.5}$, PM_{10}, ozone, nitrogen dioxide, carbon monoxide
Forecast Map	Shows the predicted AQI within 38 forecast areas on a map.	Plan outdoor activities or precautionary measures for today and tomorrow. View the predicted AQI in a source receptor area.	$PM_{2.5}$, PM_{10}, ozone, nitrogen dioxide, carbon monoxide
Current Air Quality Map	Shows the current AQI calculated using the NowCast method within 38 forecast areas on a map.	Plan outdoor activities or precautionary measures in the next hour. View the predicted AQI in a source receptor area.	$PM_{2.5}$, PM_{10}, ozone, nitrogen dioxide, carbon monoxide
Cleanest Time of Day	Shown on the Forecast Summary PDF. The time when the predicted AQI in that area is lowest and more than 10 AQI points below than the predicted daily average AQI.	Plan the time of day to conduct outdoor activities during today and tomorrow.	$PM_{2.5}$, ozone
AQI Graph	Shown by clicking on the link in the Forecast Summary PDF. Depicts how the AQI is predicted to change throughout the day in that area.	Plan the time of day to conduct outdoor activities or precautionary measures for today and tomorrow. View the predicted change of the AQI over a day in your area.	$PM_{2.5}$, ozone
Wildland & Agricultural Burn Forecast	Details the wildland and agricultural burn forecast. “Final Burn Decision” files indicate the final burn forecast and will not change. “Burn Forecast Outlook” files indicate the most likely burn designation, and may change when the final forecast is issued.	Plan periods to conduct wildland or agricultural burning today, tomorrow, and the day after tomorrow. Identify areas that wildland and/or agricultural burning is permitted.	--
Current Advisories	Provides information during extreme air quality events such as wildfires, windblown dust events, odors, pollution episodes, and residential burning prohibition periods (Check Before You Burn)	Determine if extreme air quality events will affect your location. Plan precautionary measures to protect yourself from poor air quality. Determine if residential wood burning is permitted in your area.	--