ADEQ Arizona Department of Environmental Quality

FAQ'S

Frequently Asked Questions about Air Quality Forecasting in Nogales

What has been ADEQ's historical role in air quality forecasting in Nogales?

The agency conducted a Nogales and Vicinity Particle Pollution Risk Forecast from October 2010 until March 2011 and again from October 2011 until March 2012 which predicted winds and wind-blown dust risk for the next three days. Wind speeds were predicted for each of the days with an accompanying color-coded box that listed the blown-dust risk as either low, moderate or high.

What changes today?

Today, Oct. 1, ADEQ begins an air quality indexing effort, just as it has in the Phoenix metropolitan area and in the Yuma area. The Nogales air quality index (AQI) forecast will utilize Particulate Matter-10 and Particulate Matter-2.5 monitors placed at the main Nogales post office building, 300 N. Morley Ave. for hourly readings of coarse PM-10 and fine PM-2.5 dust particles in the air. The color-coded AQI will provide preliminary data of air quality readings for the day before and forecasts for the current day, the next day, and an extended forecast.

Are there plans for other air quality monitors to be placed in Nogales?

No other air quality monitors are planned for Nogales at this time.

Why are the changes being made?

ADEQ's mission is to protect the public health and environment of Arizona. We are currently standardizing the way in which we do air quality forecasting around the state and sharing more data with the public with those forecasts. This is the second area to receive this level of air-quality forecasting in Arizona outside the Phoenix metropolitan area. The first was Yuma beginning in February 2012.

By what time each day will the forecast be made?

The forecast is updated by 1 p.m. Sunday through Friday and is valid for areas within and bordering the City of Nogales, Ariz., on the Arizona side of the international boundary.

What is Particulate Matter?

Particulate Matter is a mixture of microscopic solids and liquid droplets suspended in air. This pollution is made up of a number of components including acids such as nitrates and sulfates, organic chemicals, metals, soil or dust particles and allergens like pollen and mold spore fragments. The size of particles is directly linked to their potential for causing health problems. Particles less than 10 micrometers in diameter pose the greatest problems because they can get deep into your lungs and some may even get into your bloodstream. Even smaller particles are found in smoke and haze, 2.5 micrometers or less. A PM-10 particle is one-seventh the width of a human hair.

What is a High Pollution Advisory?

A High Pollution Advisory (HPA) is issued when forecasters believe that the highest concentration of PM-10, PM-2.5 or ozone for the day may exceed the federal health standards. On a day that an HPA is issued, ADEQ also will send media releases to the Nogales area with health tips to minimize exposure to pollutants and suggested courses of action to reduce the amount of pollution generated.

What is a Health Watch?

A Health Watch is issued when forecasters believe that the highest concentration of PM-10, PM-2.5 or ozone for the day may approach, but not exceed, the federal health standards.

Who can I contact to get more information about Nogales' air quality forecast?

Please contact ADEQ Communications Director Mark Shaffer at (602)771-2215 (office) or (480) 433-9551 (cell) or toll free (800) 234-5677 Ext. 771-2215.
E-mail: ms15@azdeq.gov
Hearing impaired persons call TDD line: (602) 771-4829
Web site:
www.azdeq.gov/environ/air/ozone/nogales.pdf

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The Nogales area is currently listed by the U.S. Environmental Protection Agency as not having attained public health standards for PM-10 and PM-2.5. Will this new air-quality forecast system help the area come back into attainment?

The new ensemble forecasts will enable the public and school officials to avoid scheduling outdoor activities during predicted times of high dust pollution. On Aug. 24, EPA approved ADEQ's plan to attain the standard for coarse particles – PM-10 -- in Nogales, Ariz., noting that the standard could be attained when particles originating across the international border are better controlled. Efforts through the U.S._Mexico Border 2020 environmental program are expected to further address control of PM-10, and the ensemble forecasts and monitors will help ADEQ track improvements in air quality. Nogales has just attained national public health standards for fine particles – PM-2.5. ADEQ expects EPA to issue a finding to that effect later this fall for PM-2.5 based on 2009-2011 data. That finding will suspend a requirement for a "nonattainment area" plan that would otherwise be due Dec. 13, 2012. Instead, ADEQ will seek redesignation to "attainment" status and submit a 10-year maintenance plan in early 2013, after public comment. The ensemble forecast will enable ADEQ to ensure that the standard continues to be met, or to spot any developing issues and correct them.

What can I do to reduce PM-10 emissions?

On unpaved roads, drive 15 miles per hour or less.

What can I do to reduce PM-2.5 emissions?

Do not burn on stagnant days during the winter, especially between Dec. 24 and Jan. 1. Fireplace emissions go way up in many parts of the state during the week between Christmas Eve and New Year's Day every year and burning wood releases many fine particles that get trapped by winter stagnation. The forecasts could show that air quality is worsening if fireplace use increases, but they could also show good air quality if people don't burn in fireplaces and wood stoves during stagnant conditions. Keep your car tuned up and carpool when you can to reduce the amount of vehicular emissions.

What measures have been implemented to improve air quality in Nogales, Ariz.?

ADEQ has been involved in a number of projects to reduce air pollution including installing 127 diesel emissions reduction devices on school buses in Arizona's border region, including 48 in Santa Cruz County as of September 2012. Another ADEQ program installed diesel retrofit devices on 71 cargo trucks which regularly cross the border delivering produce between Nogales, Sonora, and the Rio Rico warehouses north of Nogales. ADEQ staff also worked in conjunction with Nogales city staff on projects paving streets within city limits.

Have improvements been made in air quality in Nogales, Sonora?

Yes. As noted above, Nogales has just attained national public health standards for PM-2.5. Air quality improvements in PM-10 have been very important since the much larger city of Nogales, Sonora, generates more than 90 percent of the PM-10 contamination in the Ambos Nogales region. ADEQ has worked in conjunction with the Border Environmental Cooperation Commission, North American Development Bank and Nogales, Sonora, officials to identify the most travelled roadways for paving and many miles have been paved.

This collaboration also worked closely together to develop a project to expand the commercial vehicle crossing station west of downtown Nogales on Mariposa Road to more than 20 lanes, greatly reducing the wait time for idling cargo trucks. Education campaigns also have reduced the amount of trash being burned for heating purposes in Nogales, Sonora.

What projects are planned to further improve air quality in Nogales, Sonora?

The Mexican federal environmental regulatory authority, Secretaría de Medio Ambiente y Recursos Naturales (SEMARNAT), agreed to add into its federal work plan the implementation of a ProAire plan for Nogales, Sonora. ProAire is similar to the federal/state implementation plan process in the United States. The ProAire plan for Nogales will be a task for completion as part of the Border 2020 U.S.-Mexico Environmental Program.

Tell me more about the new Nogales air quality flag program at the local schools. When will it begin?

With implementation of the new Nogales air quality index, the new air quality flag program will begin immediately at participating schools throughout the area school districts. Four different-colored flags will be flown to characterize air quality conditions and potential risks after an extensive analysis of monitoring data and crafting forecasts. Green flags will indicate good air quality days, yellow flags will indicate that unusually sensitive people could experience health effects and would want to limit outdoor exposure, orange flags will indicate unhealthy for sensitive populations with limitations on rigorous outdoor exposure and red means the air quality is unhealthy for all populations.

Who can I contact to get more information about Nogales' air quality flag program?

Please contact Patty Molina, prevention manager of Mariposa Community Health Center at (520) 375-6050 Ext. 1355.
E-mail: pmolina@mariposachc.net