



## YUMA AIR QUALITY FORECAST ISSUED Friday, December 2, 2016

This report is updated by 1:00 p.m. Sunday thru Friday and is valid for areas within and bordering the city of Yuma, Arizona

| FORECAST DATE                                      | YESTERDAY<br>Thu 12/01/2016                  | TODAY<br>Fri 12/02/2016   | TOMORROW<br>Sat 12/03/2016  | EXTENDED<br>Sun 12/04/2016 |
|--|--|---|---|----------------------------|
| <b>NOTICES</b>                                     |  | <b>PM-10 Health Watch Blowing Dust</b><br> | <b>High Pollution Advisory Blowing Dust</b><br> |                            |
| AIR POLLUTANT                                      | AQI Reading/Category (Preliminary data only) |   |   |                            |
| <b>O3</b><br>(Ozone)                               | <b>31</b><br>GOOD                            | <b>28</b><br>GOOD   | <b>28</b><br>GOOD   | <b>30</b><br>GOOD          |
| <b>PM-10</b><br>(Particles 10 microns and smaller) | <b>22</b><br>GOOD                            | <b>96</b><br>MODERATE   | <b>110</b><br>UNHEALTHY FOR SENSITIVE GROUPS  | <b>32</b><br>GOOD          |

**Ozone or PM-10 Health Watch (HW)** means that the highest concentration of OZONE or PM-10 may approach the federal health standard.

**Ozone or PM-10 High Pollution Advisory (HPA)** means that the highest concentration of OZONE or PM-10 may exceed the federal health standard.

| Health Statements   |   |
|---------------------|---|
| Friday 12/02/2016   | Unusually sensitive people should consider reducing prolonged or heavy exertion outdoors.                               |
| Saturday 12/03/2016 | Active children and adults and people with respiratory disease such as asthma should limit prolonged exertion outdoors. |

## Synopsis and Discussion

**A PM-10 Health Watch is valid for Friday, December 2, 2016.**

**A PM-10 High Pollution Advisory is valid for Saturday, December 3, 2016.**

The main focus of this forecast is a strong, atmospheric wave that will pass directly over the Yuma area the next couple days. This wave will result in a strong, northerly flow that will persist over the CA/AZ border today through Saturday afternoon. Today, Yuma will be breezy. However, stronger winds are expected over far eastern San Bernardino and Riverside counties of CA. These winds will likely pick up dust that could potentially make its way to Yuma.

Moreover, winds are expected to strengthen along the CA/AZ border beginning around midnight Saturday and remain elevated into the afternoon. Considerably windy and gusty conditions are expected in Yuma and north of Yuma throughout all of Saturday morning and possibly into the afternoon. Due to the potential for substantial blowing dust in the area, **a PM-10 High Pollution Advisory has been issued for Yuma on Saturday.**

By Sunday, a ridge of high pressure will build in over the region. Winds will weaken to light and high temperatures will finally reach around normal (low 70s). PM-10 is expected to return to the Good Air Quality Index. Lastly, no issues with ozone are forecast for this period.

Check back on Sunday for a look ahead at next week's weather and air quality. Until then, have a great weekend! –M.Graves

Check out our new reports on recent observed air quality data for [ozone](#) and [PM-10](#). The permanent location of the links will be in the "Useful Links" table below.

## POLLUTION MONITOR READINGS FOR Thursday, December 1, 2016

### O3 (OZONE)

| SITE NAME      | MAX 8-HR VALUE (PPB) | MAX AQI | AQI COLOR CODE  |
|----------------|----------------------|---------|---|
| Yuma Supersite | 33                   | 31      |  |

### PM-10 (PARTICLES)

| SITE NAME      | MAX 24-HR VALUE (µg/m3) | MAX AQI | AQI COLOR CODE  |
|----------------|-------------------------|---------|---|
| Yuma Supersite | 24.7                    | 22      |  |

### USEFUL LINKS

|  |   |
|--|---|
| <a href="#">WEB CAMERA IMAGES</a>                | <a href="http://www.phoenixvis.net/">http://www.phoenixvis.net/</a> |
| <a href="#">RECENT OBSERVED AIR QUALITY DATA</a> | <a href="#">Ozone</a> <a href="#">PM-10</a>                         |

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## Yuma Supersite Pollution Monitor Location Map



## Local Air Pollutants in Detail



### **O3 (OZONE):**

**DESCRIPTION:** This is a secondary pollutant that is formed by the reaction of other primary pollutants (precursors) such as VOCs (volatile organic compounds) and NOx (Nitrogen Oxides) in the presence of sunlight.

**SOURCES:** VOCs are emitted from motor vehicles, chemical plants, refineries, factories, and other industrial sources. NOx is emitted from motor vehicles, power plants, and other sources of combustion.

**POTENTIAL HEALTH IMPACTS:** Exposure to ozone can make people more susceptible to respiratory infection, result in lung inflammation, and aggravate pre-existing respiratory diseases such as asthma. Other effects include decrease in lung function, chest pain, and cough.

**UNIT OF MEASUREMENT:** Parts per billion (ppb).

**AVERAGING INTERVAL:** Highest eight-hour period within a 24-hour period (midnight to midnight)

**REDUCTION TIPS:** Curtail daytime driving, refuel cars and use gasoline-powered equipment as late in the day as possible.

### **PM-10 (PARTICLES):**

**DESCRIPTION:** The term "particulate matter" (PM) includes both solid particles and liquid droplets found in air. Many manmade and natural sources emit PM directly or emit other

pollutants that react in the atmosphere to form PM. Particles less than 10 micrometers in diameter tend to pose the greatest health concern because they can be inhaled into and accumulate in the respiratory system. Particles less than 2.5 micrometers in diameter are referred to as “fine” particles and are responsible for many visibility degradations. Particles with diameters between 2.5 and 10 micrometers are referred to as “coarse”.

SOURCES: Fine = All types of combustion (motor vehicles, power plants, wood burning, etc.) and some industrial processes. Coarse = crushing or grinding operations, dust from paved or unpaved roads, as well as dirt and sand from the open desert.

POTENTIAL HEALTH IMPACTS: PM can increase susceptibility to respiratory infections and can aggravate existing respiratory diseases, such as asthma and chronic bronchitis.

UNIT OF MEASUREMENT: Micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ )

AVERAGING INTERVAL: 24 hours (midnight to midnight).

REDUCTION TIPS: Stabilize loose soils, slow down on dirt roads, carpool, and use public transit.

*Updated 8/11/2016*