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## YUMA AIR QUALITY FORECAST FOR Thursday, May 15, 2014

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 Tue 05/13/2014	TODAY Wed 05/14/2014	TOMORROW Thu 05/15/2014	EXTENDED Fri 05/16/2014
<b>NOTICES</b> *see below for details				
AIR POLLUTANT	AQI Reading/Category <b>(Preliminary data only)</b>			
<b>O3</b> (Ozone)	<b>50</b> GOOD	<b>48</b> GOOD	<b>51</b> MODERATE	<b>54</b> MODERATE
<b>PM-10</b> (Particles 10 microns and smaller)	<b>23</b> GOOD	<b>50</b> GOOD	<b>33</b> GOOD	<b>41</b> GOOD

[ \* **Ozone Health Watch** means that the highest concentration of OZONE may approach the federal health standard.  
**PM-10 Health Watch** means that the highest concentration of PM-10 may approach the federal health standard.  
**High Pollution Advisory** means that the highest concentration of OZONE or PM-10 may exceed the federal health standard.  
**DUST** means that short periods of high PM-10 concentrations caused by outflow from thunderstorms or frontal system passages are possible. ]

Health Statements	
Wednesday 05/14/2014	No health impacts expected.
Thursday 05/15/2014	Unusually sensitive people should consider reducing prolonged or heavy exertion outdoors.

## Synopsis and Discussion

Breezy to gusty northeasterly winds continue today. This is due to a strong pressure gradient existing over Arizona between a ridge of high pressure in the eastern Pacific and a trough of low pressure slowly edging into the Great Plains.

Winds start to wind-down later today, when the upper-level weather pattern eventually shifts eastward, allowing the ridge to move onshore into the Southwest. Lighter northerly winds will continue Thursday and then shift southwesterly Friday. Hot temperatures in the low 100s and clear skies are expected.

No dust issues are anticipated with the north to northeast winds. PM-10 levels should hold in Good range through the end of the week. Ozone levels, however, may enter the lower Moderate category because of clear skies and a light westerly flow developing.

Enjoy the day and check back tomorrow for an updated forecast! -J. Malloy

## POLLUTION MONITOR READINGS FOR Tuesday, May 13, 2014

### O3 (OZONE)

SITE NAME	MAX 8-HR VALUE (PPB)	MAX AQI	AQI COLOR CODE
Yuma Supersite	59	50	

### PM-10 (PARTICLES)

SITE NAME	MAX 24-HR VALUE ( $\mu\text{g}/\text{m}^3$ )	MAX AQI	AQI COLOR CODE
Yuma Supersite	24.7	23	

[Click Here to find out how the AQI forecast is used in the Yuma Air Quality Flag Program](#)



## 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 NO<sub>x</sub> (Nitrogen Oxides) in the presence of heat and sunlight.

**SOURCES:** VOCs are emitted from motor vehicles, chemical plants, refineries, factories, and other industrial sources. NO<sub>x</sub> 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 (ug/m<sup>3</sup>)

**AVERAGING INTERVAL:** 24 hours (midnight to midnight).

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