



ADEQ
 Arizona Department
 of Environmental Quality

Janet Napolitano, Governor
 Stephen A. Owens, ADEQ Director

**YUMA AND VICINITY
 DUST CONTROL ACTION FORECAST
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Three-day weather outlook:

NOTE: During active summer monsoon episodes, outflows from even distant thunderstorms have the potential to cause periods of gusty winds and dense blowing dust.

The summer monsoon moisture and circulation pattern has become established over Arizona. Steering flow is from the northeast and east so thunderstorms that develop over the Rim will tend to drift toward the desert areas each evening; at this time only debris cloudiness is expected to reach the Yuma area, with only an outside chance of gusty outflow winds. Breezy up-channel winds are expected to continue thru Saturday after which Tropical Storm Douglas will exit the area.

WINDS

WIND-BLOWN DUST RISK

Day #1: Sat 07/05/2008	Southerly 10-20 mph with gusts to 25 mph except strong and gusty due to outflow from thunderstorms.	MODERATE
Day #2: Sun 07/06/2008	No significant winds expected except strong and gusty due to outflow from thunderstorms.	MODERATE
Day #3: Mon 07/07/2008	No significant winds expected except strong and gusty due to outflow from thunderstorms.	MODERATE

PM-10 & PM-2.5 (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 (brown cloud). 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 and dust from paved or unpaved roads.

Potential health impacts – PM can increase susceptibility to respiratory infections and can aggravate existing respiratory diseases, such as asthma and chronic bronchitis.

Units of measurement – Micrograms per cubic meter (ug/m3)

Averaging interval – 24 hours (midnight to midnight).

Reduction tips – Stabilize loose soils, minimize travel on dirt roads, utilize tarps on haul trucks, limit use of leaf-blowers, and on high-wind days reduce outdoor activities.