



**YUMA AND VICINITY
DUST CONTROL ACTION FORECAST
ISSUED THURSDAY, MARCH 18, 2010**

Three-day weather outlook:

A pair of weather disturbances aloft will rapidly carve out a deep trough over the Rockies on Friday and Saturday. The westernmost of the two will move over AZ and bring an increase in gradient winds to much of the state – including Yuma – on Friday. This will take the form of a down-river wind event that will be at its peak on Friday and weaken on Saturday.

WINDS

WIND-BLOWN DUST RISK

Day #1: Fri 03/19/2010	Northwest to northerly 10-20 mph with gusts over 25 mph possible.	MODERATE
Day #2: Sat 03/20/2010	Northerly 10-20 mph decreasing by afternoon.	LOW
Day #3: Sun 03/21/2010	No significant winds expected.	LOW

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.