



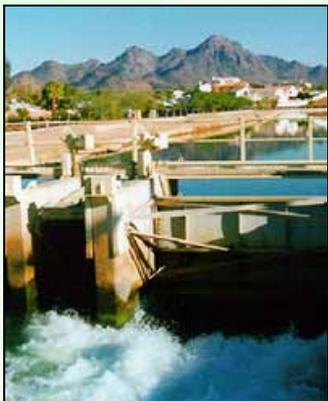
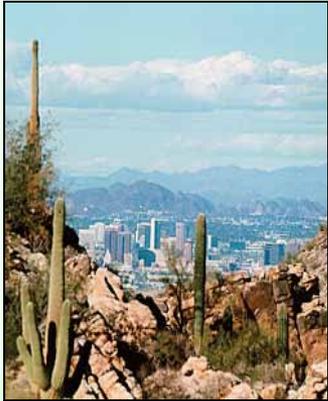
Overview of Clark County Nevada Natural Events Action Plan for High-Wind Events

MAG Air Quality Technical Advisory Committee

March 24, 2011

Purpose of Natural Events Action Plan

- n **Clark County's Natural Events Action Plan for High-Wind Events addresses four important objectives:**
 - | Provide education and outreach programs to the public, business, and industrial communities that focus on actions that reduce the generation of, and exposure to, PM-10 during events
 - | Provide a high-wind notification system for the public and regulated community, both before and during the event
 - | Identify appropriate high-wind controls (BACM) and ensure that PM-10 control measures are implemented during high-wind events
 - | Provide evidence for justification of an exceptional event determination should an exceedance of the standard occur



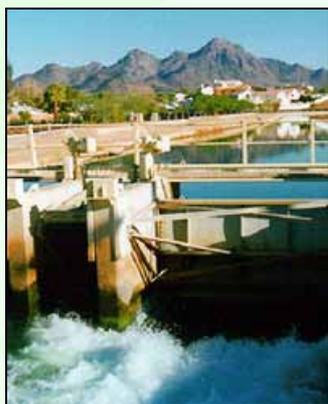
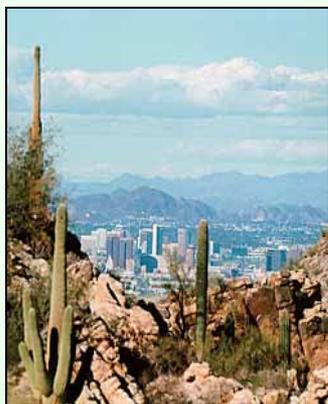
Public Outreach and Education

n Educate the public

- | Inform the public when air quality in the area is unhealthy
- | Explain what the public can expect when high-winds occur
- | Actions the public can take to minimize exposure
- | Inform public of the steps that are taken to control dust emissions during high winds

n Outreach to the public

- | Focused outreach during high-wind season at community and school events
- | Meetings with local government, environmental and health professionals
- | Air quality reporting training for local weather news media





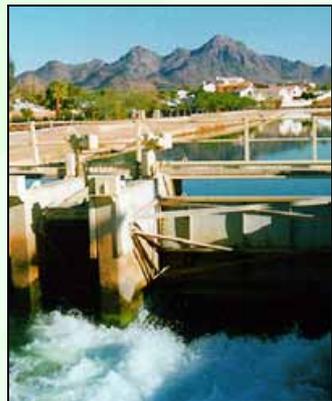
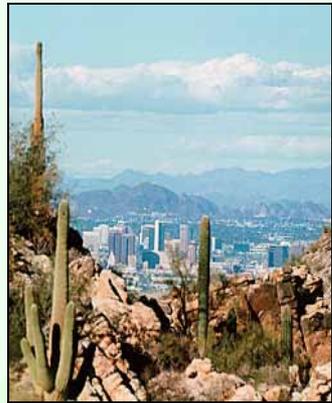
Public Outreach and Education

n Produce publications and presentations

- | *“Dust Storms and Your Health: What Everyone Should Know”*
- | *“Protecting the Air We Share”*
- | *“Particulate Matter Air Pollution from Natural Events”*
- | *“Tips to Reduce Dust and Particles”*

n Formation of Medical Advisory Committee

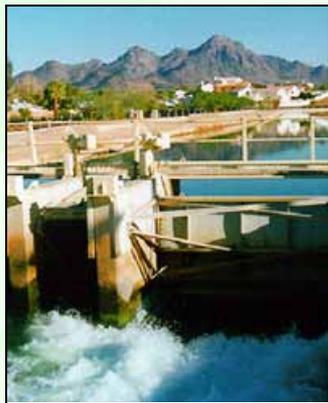
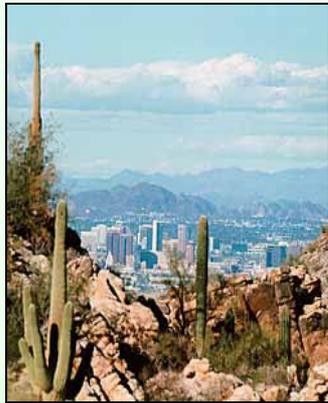
- | Comprised of local physicians
- | Provides medical advice to Clark County during high-wind events, responses to media inquiries, and presentations to community groups





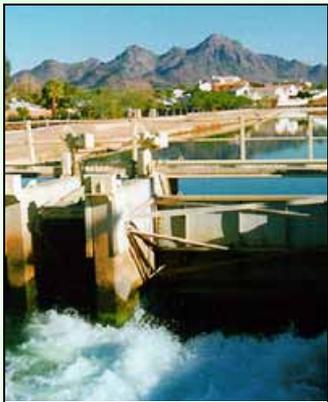
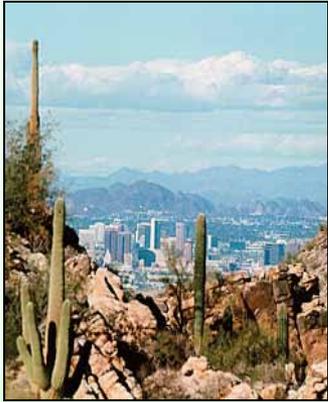
Public Notification Program

- n **Notifications are required when a dust event is imminent, currently taking place, or has reached hazardous levels**
 - l Advisory: A wind event with sustained winds of 25 mph or more, or frequent gusts of 40 miles per hour or more (usually issued 12 to 24 hours prior to event)
 - l Alert: Meteorological and ambient monitoring data confirm an event is happening and PM-10 levels are elevated
- n **Notification focus on minimizing public exposure during an event**
 - l Identify and notify population most at risk to highest exposure
 - n Notified through school and health districts, parks and rec., local municipalities and local media
 - l Suggest actions and precautions to be taken by the public and industry to minimize exposure and reduce outdoor activity



Public Notification Program

- n **An advisory or alert notification typically contain:**
 - | Forecasted weather
 - | Start and expiration date and time of event
 - | Health effects of high PM-10 concentrations
 - | Recommended actions to reduce exposure for sensitive and healthy populations
 - | Encourage residents to call dust complaint hotline when excessive blowing dust is observed
 - | Encourage residents to visit website to view near “real-time” monitoring data
 - | Stationary sources and construction sites are directed by email or fax to inspect their sites, implement BACM controls and stabilize all disturbed soils on site





Media Advisory

Public Communications ■ 500 S. Grand Central Parkway, 6th Fl., Las Vegas, NV 89155-1111 ■ Fax: (702) 455-3558

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E-mail: stac@co.clark.nv.us

For Immediate Release

Wednesday, March 26, 2003

Air Quality Officials Issue Wind Advisory Wednesday Forecast Calls for 45-Mile-Per-Hour Gusts

With strong winds expected in Southern Nevada this afternoon and tonight, Clark County Air Quality officials are advising residents and operators of local construction sites to brace for blowing dust and higher levels of PM-10.

The Las Vegas office of the National Weather Service predicts sustained winds of 25 to 35 miles an hour by Wednesday evening in Southern Nevada, with some gusts reaching 45 miles an hour. Under those conditions, Air Quality officials say people with asthma, emphysema and other respiratory diseases should consider staying indoors. As part of this advisory, officials also encourage construction site operators to take steps to check and stabilize their property for blowing dust and debris as required by local air quality regulations.

High winds in excess of 25 miles per hour tend to make the valley's PM-10 problems worse. PM-10 stands for particulate matter, primarily dust, 10 microns or less, which is smaller than the diameter of a human hair. It's a type of inhalable air pollution that aggravates respiratory diseases such as bronchitis or asthma. **During windy conditions, children, seniors and people with chronic respiratory problems are urged to stay indoors; Air Quality officials also advise all residents to limit outdoor exercise.**

The Las Vegas Valley currently does not meet the federal 24-hour air quality standard for PM-10. The U.S. Environmental Protection Agency, however is reviewing a plan that meets those standards. An important component of the plan is for the county's Air Quality Department to step up efforts to educate the public about the health hazards of dust and the possible economic consequences of not meeting federal air quality standards.

"The Las Vegas Valley faces the loss of millions of dollars in federal highway funding and other sanctions if we as a community don't do a better job controlling dust," said Christine Robinson, director of the Air Quality Management Dept. "We may not be able to control Mother Nature, but we certainly can work with residents and local industry to cut down on man-made sources of dust contributing to the problem."

Residents are encouraged to call Air Quality's dust-complaint hotline at 385-DUST to report excessive amounts of blowing dust. To find out more about local air quality issues, visit the department's website at www.accessclarkcounty.com.

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News release also available on the Internet at www.accessclarkcounty.com

Clark County Board of Commissioners

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ENVIRONMENTAL
PROGRAMS

HIGH WIND NOTICE
Attention Dust Control Permit Holders
Contractors and Stationary Sources

The National Weather Service has forecast strong sustained winds in excess of 25 mph with higher gust for Tuesday April 1, 2003.

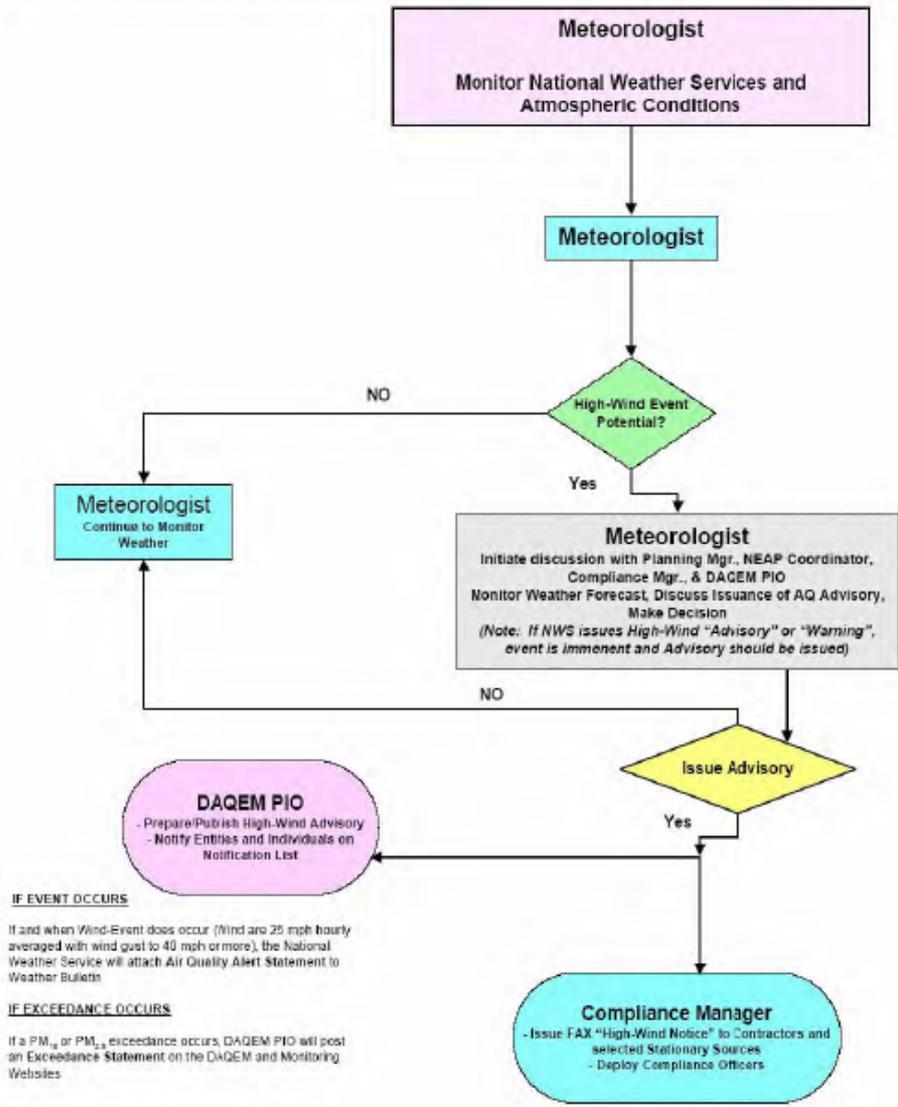
The Department of Air Quality & Environmental Management (DAQEM) directs each permittee to immediately inspect their site and employ Best Available Control Measures (BACM) to stabilize all disturbed soils to reduce wind blowing dust. Permittees with multiple sites should contact each site Superintendent to ensure compliance with the DAQEM Air Quality Regulations.

DAQEM Compliance Officers will inspect construction and stationary source sites during the wind episode and any observed air quality violation will receive a Notice of Violation (NOV).

Please direct questions about this Wind Advisory to a DAQEM Compliance Supervisor at 702-455-5942.

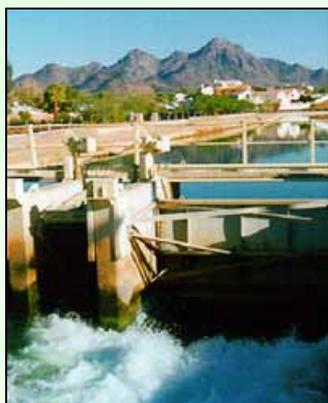
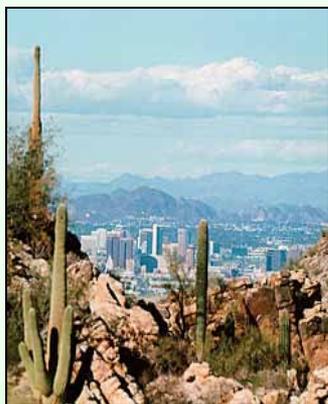


Figure 5 - NEAP HIGH-WIND AIR QUALITY NOTICE AND RESPONSE



Ensuring PM-10 Controls are Implemented

- n **Identify appropriate BACM-level PM-10 controls for dust sources subject to windblown dust**
- n **Highlight soil conditions that are most susceptible to producing windblown dust (Soil Particulate Emission Potential Map)**
- n **Education of site supervisors, dust monitors and water truck operators**
 - | “Dust Monitor Class”, tailgate sessions
- n **Issuance of advisories to the regulated community**
 - | Industries notified directly of the event
 - | Instructed to verify BACM-level controls in place and in use
 - | Notified of presence of department field staff actively conducting inspections focused on sources of windblown dust



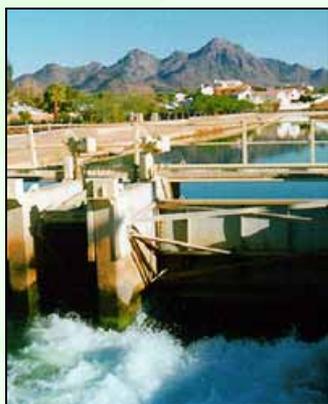
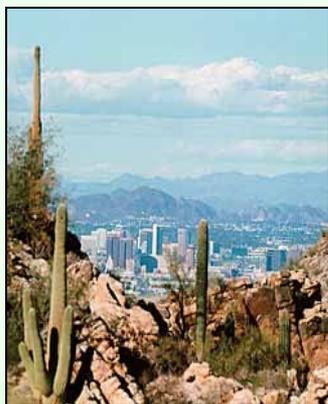
Ensuring PM-10 Controls are Implemented

n **Concentrated enforcement and compliance activities**

- | Compliance staff focused on areas known to be sources of windblown dust
 - n Developed through historical patterns, complaint data, and focus on the areas around monitors with elevated readings during the event
- | Violating sources are issued a Corrective Action Order which may lead to a Notice of Violation depending on severity of the violation

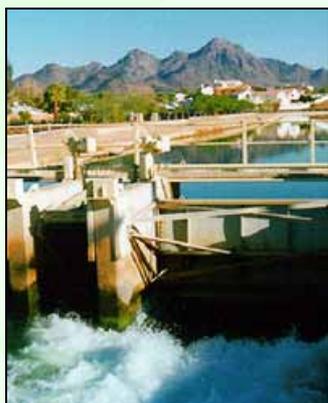
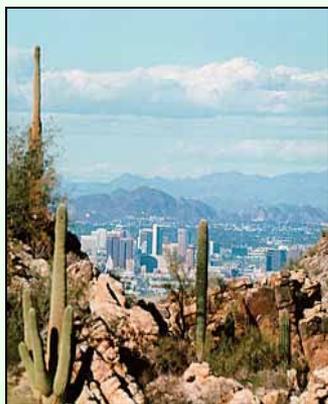
n **Abatement of violating sites**

- | Rules allow Clark County to abate site through use of contracted water truck when site owner/operator refuses or cannot to abate the violation.



Exceptional Event Justification

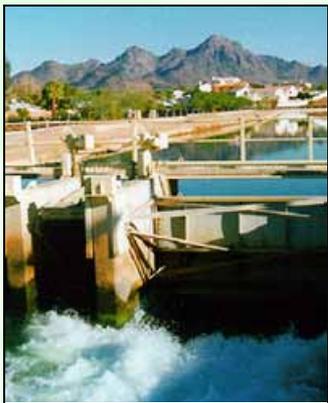
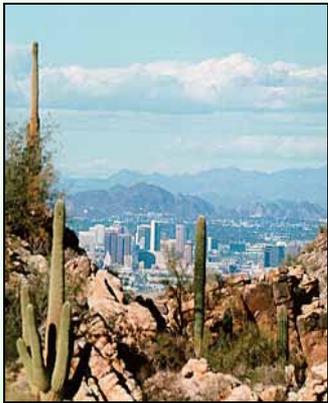
- n **Notifications, public outreach and documentation of compliance activities after an advisory or alert has been issued can be used as evidence in an exceptional events determination, should an exceedance of the standard occur**
 - | Compliance staff document that BACM is in place and enforced through inspections and records review conducted during the event
 - | Compliance staff use digital photography and video to document blowing dust, wind damage, etc.
 - | County public information staff coordinate with the news media in producing media releases and stories surrounding the event





Recent Example of Action Plan in Use

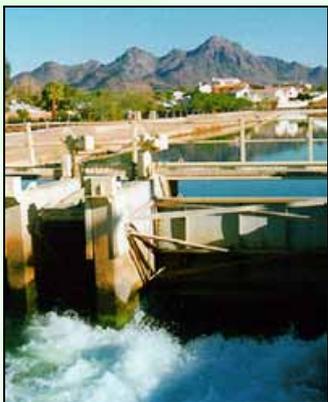
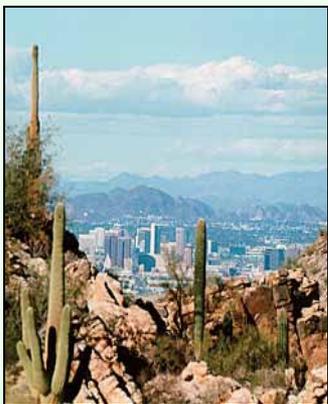
- n **Conversation with Rodney Langston, Principal Planner, for Clark County on actions taken during possible event on March 16, 2011**
- n **Field-based compliance supervisor noticed unusually dusty conditions in the morning**
 - l Decision was made to issue advisory to stationary sources
- n **Planning supervisor observed increased wind speeds and monitor concentrations at one particular site as afternoon progressed**
 - l Compliance supervisor and planning supervisor discussed the local conditions and the decision was made to convince the meteorologist to issue a public advisory despite wind speeds being below normal trigger levels



ENVIRONMENTAL
PROGRAMS

Recent Example of Action Plan in Use

- n **Field inspectors shifted focus to possible sources in the area around the affected monitor and tracked the monitor concentration levels through laptops**
 - l Subsequent investigation of the area determined that the probable source of the elevated concentrations was a dry lake bed upwind of the monitor
- n **Standard was not exceeded on this day**





For More Information

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www.azmag.gov

