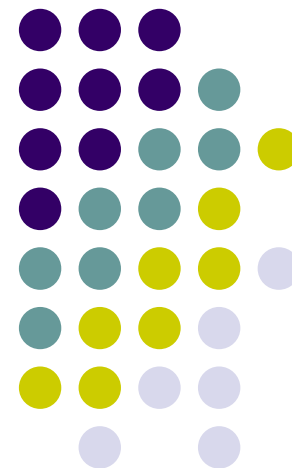


Pinal County Air Quality Summit 2008

EPA Region 9's Perspective

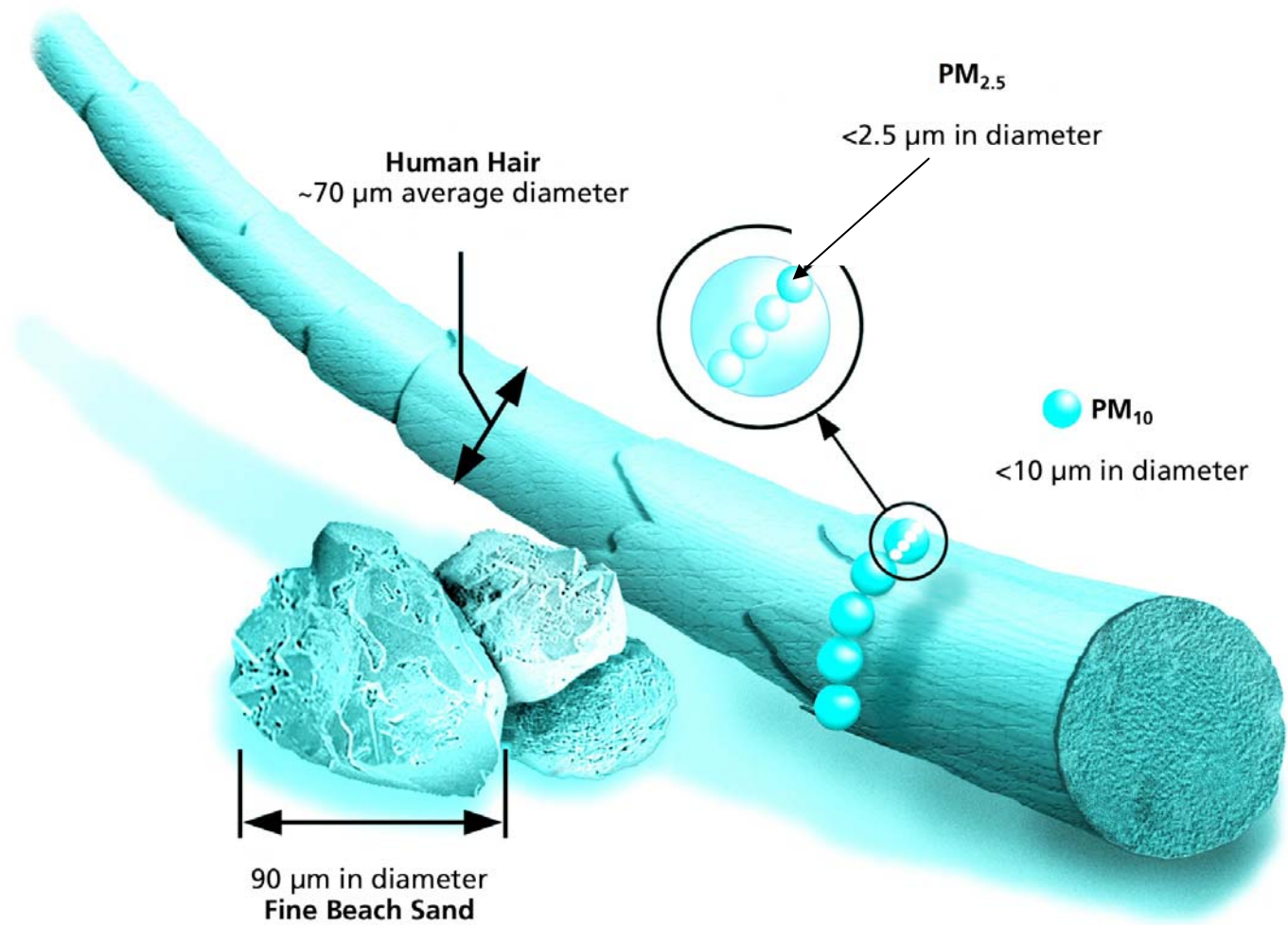


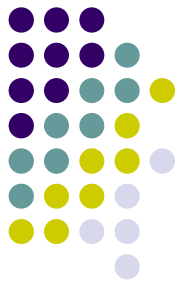
Colleen McKaughan, USEPA Region 9
November 7, 2008



Particulate Matter: What is It?

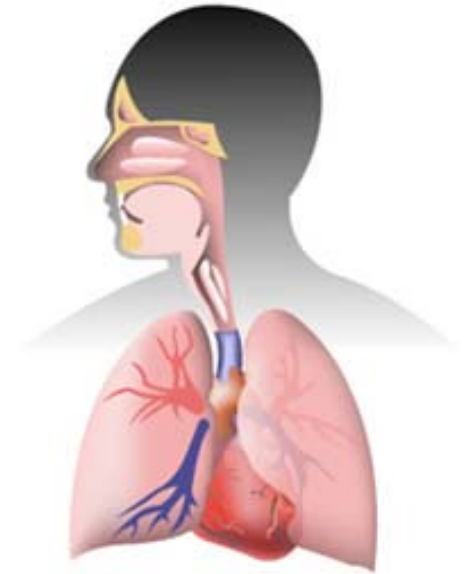
A complex mixture of extremely small particles and liquid droplets





Particulate Matter

- Larger particles ($> PM_{10}$) deposit in the upper respiratory tract
- Smaller, inhalable particles ($\leq PM_{10}$) penetrate deep into the lungs



- Both coarse particulate matter and fine particulate matter can penetrate to lower regions of the lung
- Deposited particles may accumulate, react, be cleared or absorbed



Health Effects of Particle Pollution

- Many scientific studies have linked breathing particle pollution to a series of significant health problems, including:
 - Aggravated asthma
 - Increases in respiratory symptoms like coughing and difficult or painful breathing
 - Chronic bronchitis
 - Decreased lung function
 - Premature death in people with heart and lung disease



Latest Particulate Standard Review

- On September 21, 2006 EPA completed its review of the 1997 National Ambient Air Quality Standards (NAAQS) for particle pollution.
- The final decision revoked the annual PM-10 standard but retained the 24-hour PM-10 standard to protect public health. (2006 standard)
- Standard is 150 micrograms per cubic meter, 24-hour average.

EPA Region 9's Perspective on Pinal County's PM-10 Status



- Pinal County has violated the PM-10 standard since 2002.
- In 2002, two violating monitors.
- In 2008, seven violating monitors.
- Cowtown monitor is the worst but 6 other violating sites indicates a problem elsewhere in the County.

EPA Region 9's Perspective on Pinal County's PM-10 Status



- Pinal County has 5 of the worst 8 PM-10 sites in the country.
- PM-10 problem has gotten worse over time as more people moved to Pinal County.

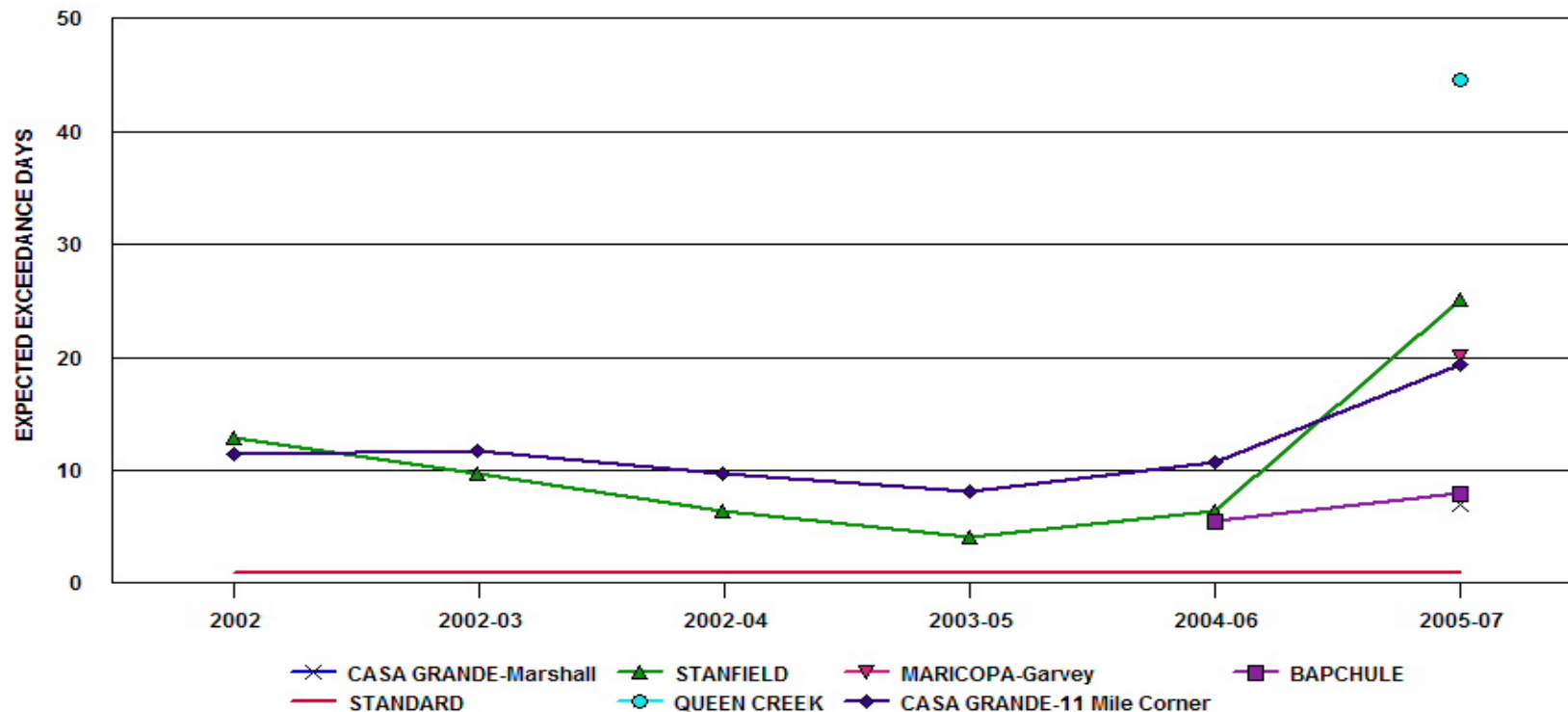
PM10 Violations in Pinal County, Arizona



EPA Region 9 Air Quality Trends 2002-2007

PINAL COUNTY w/o COWTOWN

PARTICULATE MATTER - PM10 Expected Exceedances National 24-hour PM10 Standard Expected Number of Days per Year Exceeding the Standard



National 24-hour PM10 standard is 150 micrograms per cubic meter.
The standard is attained when the Expected Exceedances = 1.0 or less (red line).

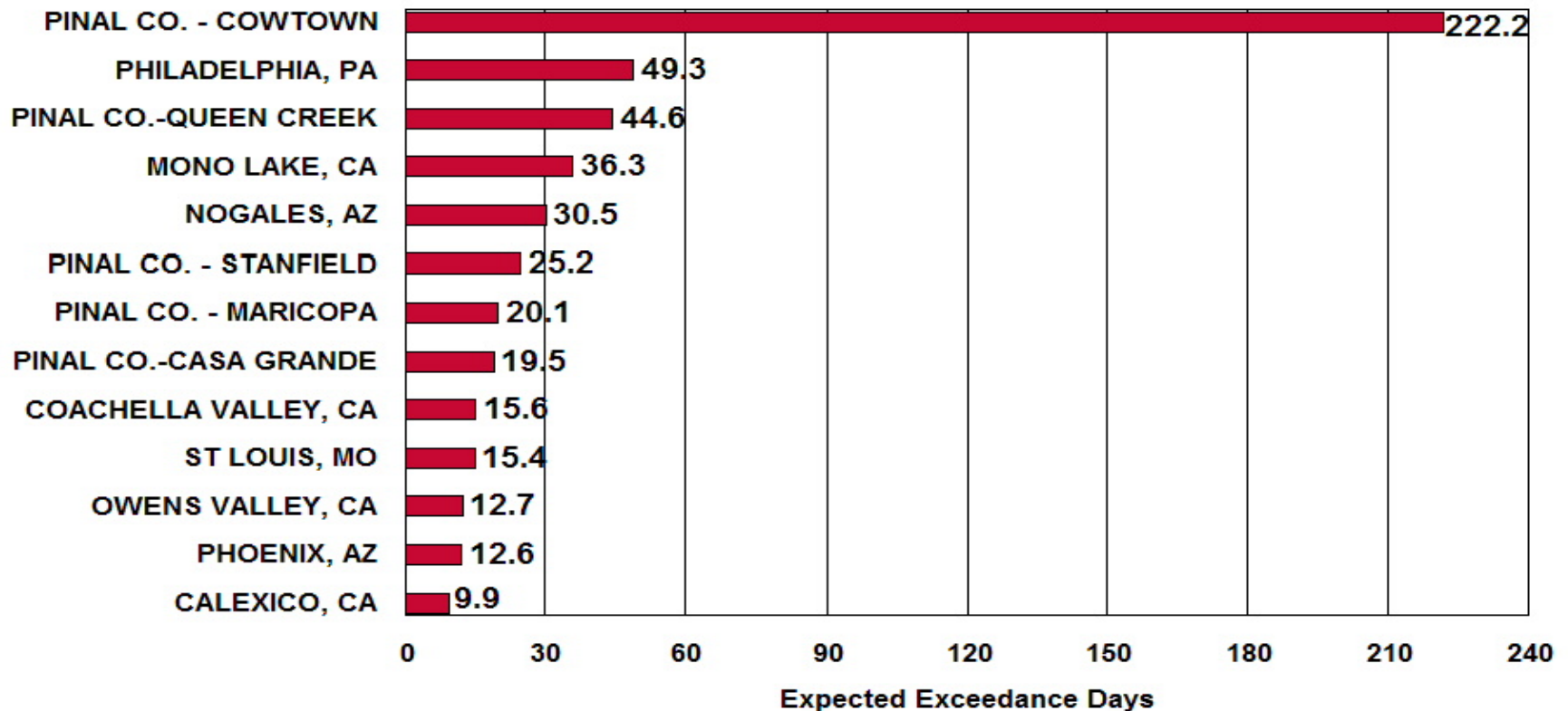
PM10 Violations in Pinal County, Arizona



United States Air Quality

PARTICULATE MATTER - PM10

**Expected Number of Days per Year Exceeding the 24-hour Standard
Worst PM10 Air Quality Sites in the USA 2005-2007**



National Ambient Air Quality Standard = 150 micrograms per cubic meter (ug/m3) 24-hour average concentration.

PM-10 “Design Value” Concentrations for Violating Monitors Pinal County 2005-2007



Conc. (ug/m3)	Monitor
1839	Casa Grande – Eleven Mile Corner Rd
1014	Cowtown
983	Casa Grande – Marshall St
970	Queen Creek
525	Maricopa – Garvey Rd
482	Stanfield
430	Bapchule
150	National Standard – PM-10 (24-hour concentration)

Clean Air Act Requirements



- Section 107(d)(3)(A) gives EPA the authority on the basis of air quality data to notify the Governor that the designation of an area should be revised.
- EPA Region 9 is moving ahead to redesignate Pinal County to nonattainment for PM-10 based on available monitoring data.



Redesignation Process

- EPA Region sends letter to Governor notifying her that designation of Pinal Co. needs to be revised.
- 120 days later, Governor submits the State's recommendation, including boundaries.
- 120 days later, the Administrator shall promulgate the redesignation, making any modifications deemed necessary.
- If the Governor does not submit a recommendation, the Administrator "shall promulgate such redesignation".



Conclusion

- Region 9 is planning to redesignate Pinal County to nonattainment for PM-10.
- The area has been violating since 2002, so citizens are breathing unhealthy air.
- Pinal County will have to develop a plan with controls on PM-10 sources upon redesignation.
- The schedule will be tight – plan due 18 months after designation.



Questions?



Contact Information



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