

Utah's Air Quality Program

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UTAH DEPARTMENT OF
ENVIRONMENTAL QUALITY
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Air Quality Issues

- Current Status Update
 - Air Quality Trends
 - Recent Actions
- Key Upcoming Issues
 - New Ozone Standard
 - PM2.5 Serious Area Classification
 - Regional Haze



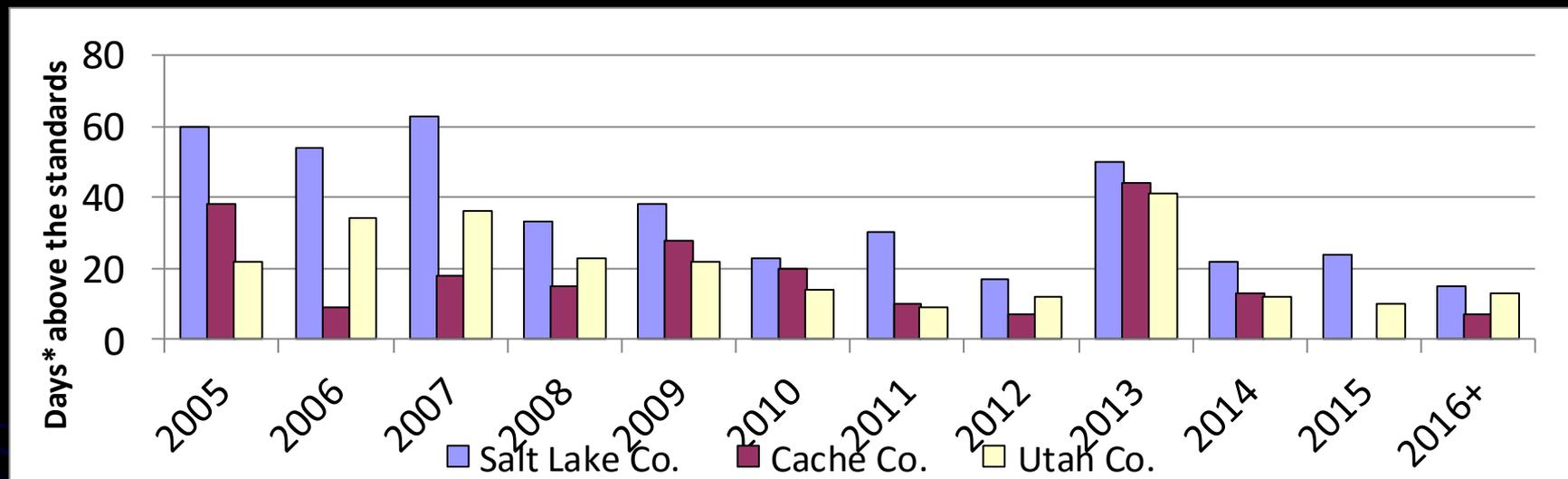
Utah experiences good air quality, except for about 5% of days on average when we exceed current federal health standards



National Ambient Air Quality Standards

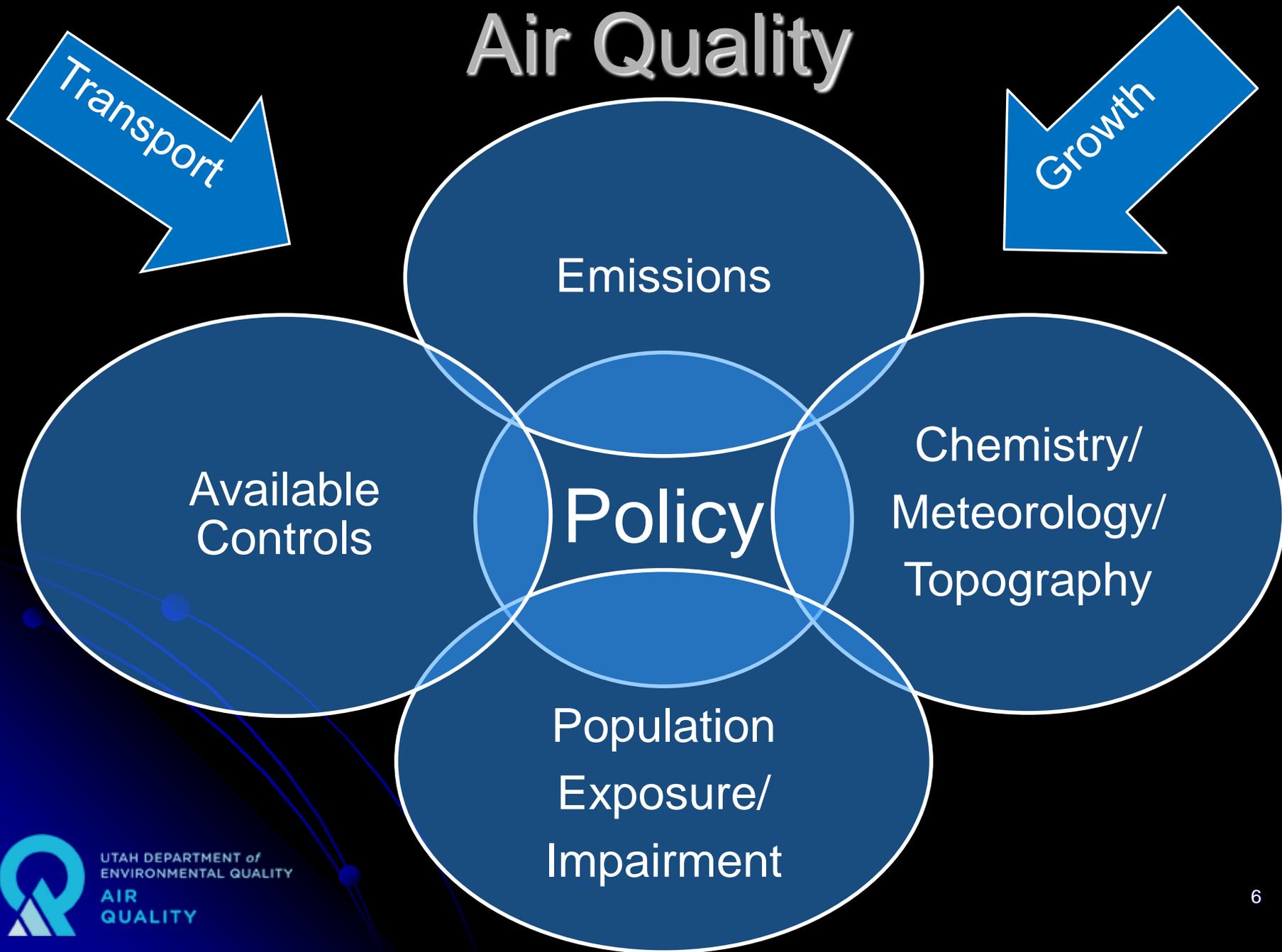
Pollutant	Primary/ Secondary	Averaging Time	Level	Form	
<u>Carbon Monoxide (CO)</u>	primary	8 hours	9 ppm	Not to be exceeded more than once per year	
		1 hour	35 ppm		
<u>Lead (Pb)</u>	primary and secondary	Rolling 3 month period	<u>0.15</u> $\mu\text{g}/\text{m}^3$ (1)	Not to be exceeded	
	primary	1 hour	100 ppb		
<u>Nitrogen Dioxide (NO₂)</u>	primary and secondary	1 year	<u>53 ppb</u> (2)	Annual Mean	
	primary and secondary	8 hours	<u>0.070</u> ppm (3)	Annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years	
<u>Particle Pollution (PM)</u>	PM2.5	primary	1 year	12.0 $\mu\text{g}/\text{m}^3$ ³	annual mean, averaged over 3 years
		secondary	1 year	15.0 $\mu\text{g}/\text{m}^3$ ³	annual mean, averaged over 3 years
	PM10	primary and secondary	24 hours	35 $\mu\text{g}/\text{m}^3$ ³	98th percentile, averaged over 3 years
		primary and secondary	24 hours	150 $\mu\text{g}/\text{m}^3$ ³	Not to be exceeded more than once per year on average over 3 years
<u>Sulfur Dioxide (SO₂)</u>	primary	1 hour	<u>75 ppb</u> (4)	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years	
	secondary	3 hours	0.5 ppm	Not to be exceeded more than once per year	

Number of Days That Are and Those That Would Have Been Above the Current Federal Standards Salt Lake, Cache, and Utah County Areas



* Days with monitored values above the level of the **current** National Ambient Air Quality Standards combined for PM2.5 and ozone (PM2.5 standard revised in 2006, ozone standard revised in 2015) + pending final quality assurance

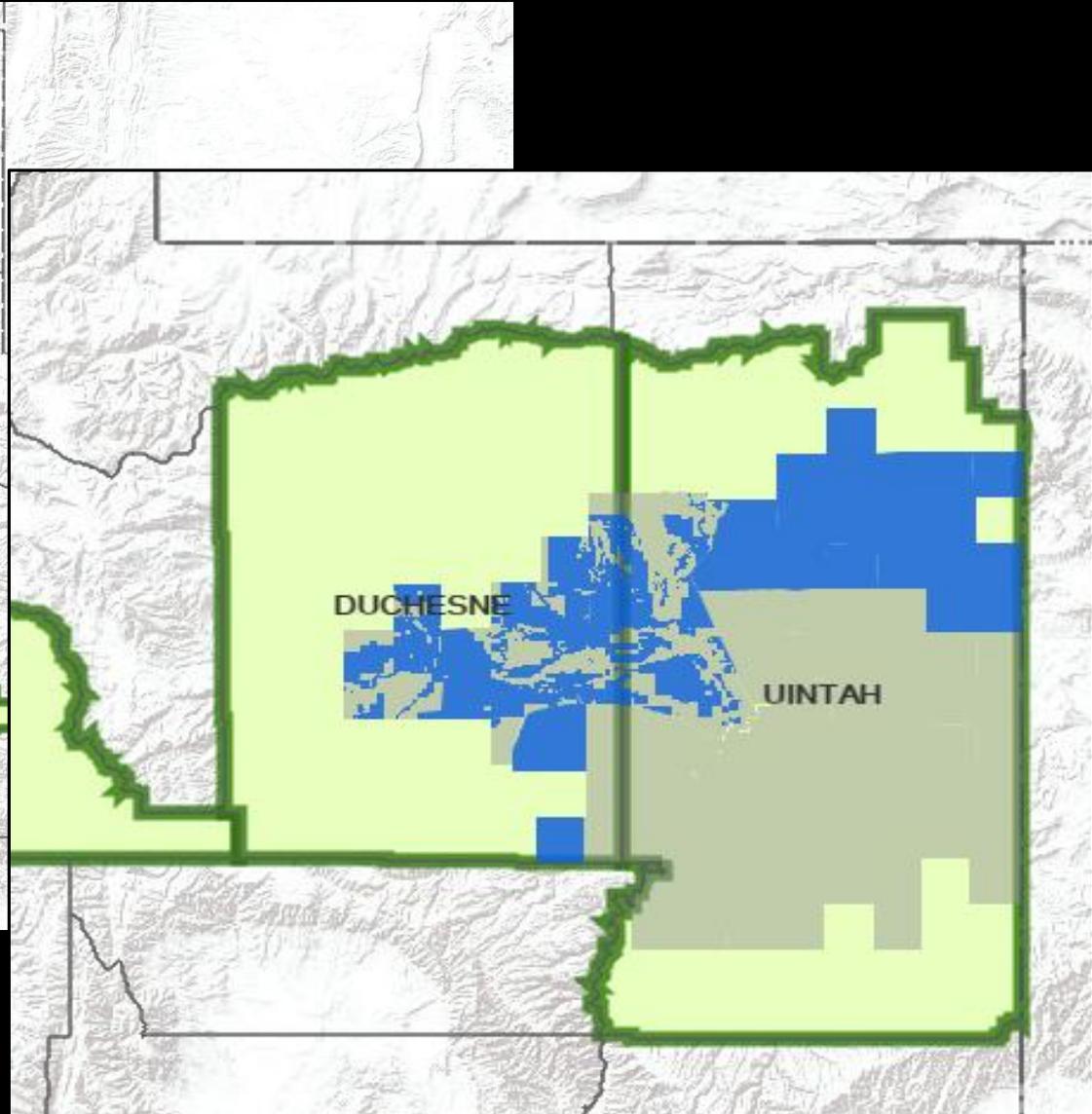
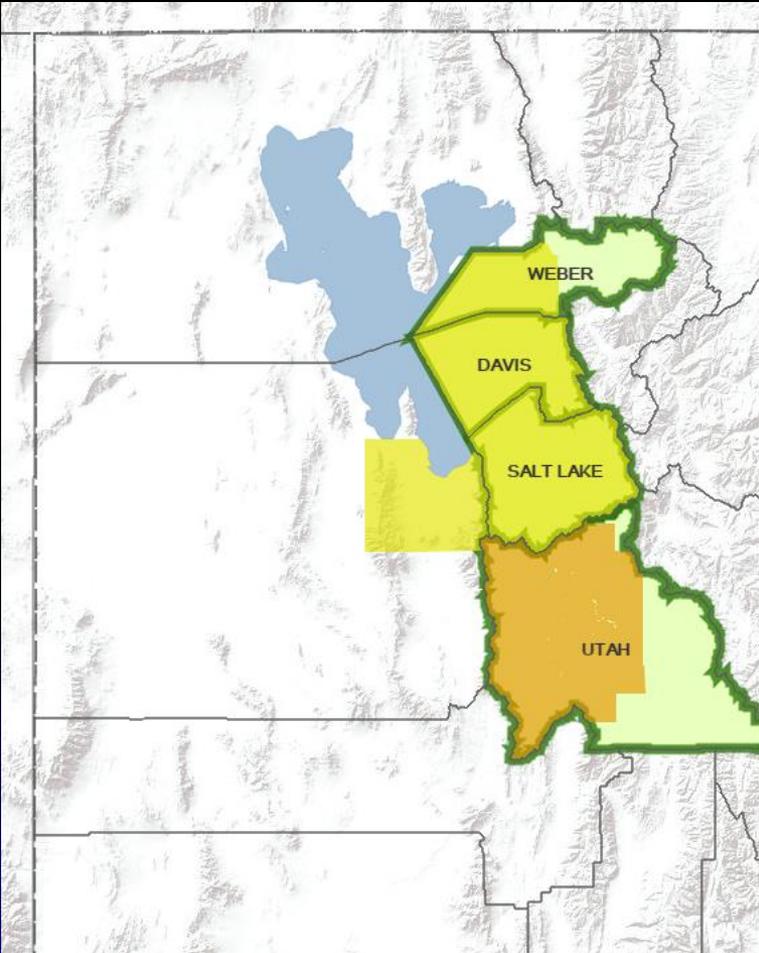
Air Quality



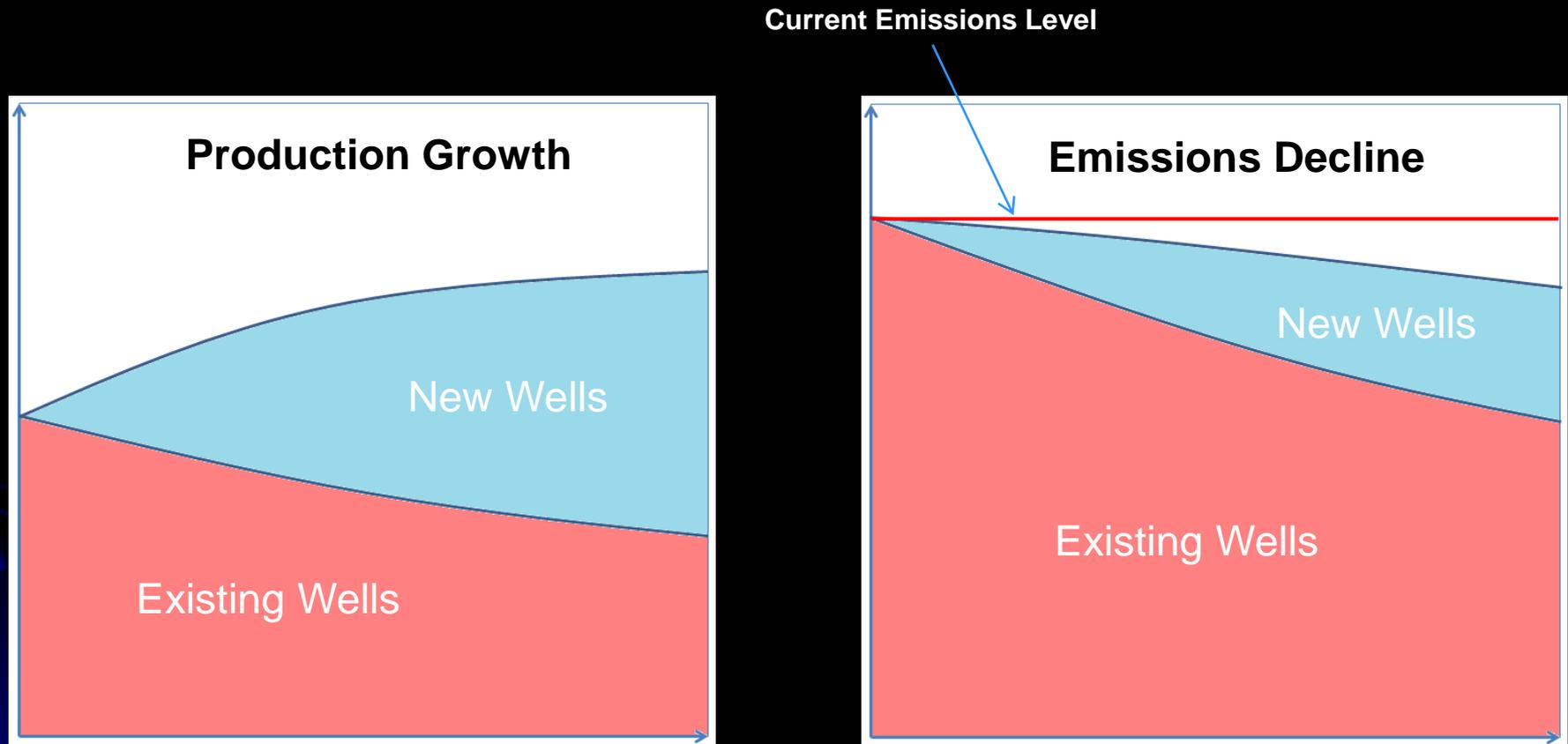
Immediate Issues

- PM2.5 Plan – 31 new rules
 - Increased incentives and education about voluntary measures (UCAIR and Envision Utah)
 - “Serious” reclassification expected in fall of 2016
- Ozone – New Standard and unique Uinta Basin
 - Clean up existing equipment, Streamlined permitting for cleanest new equipment, Improved inventory through connection with Oil Gas and Mining
 - Coordination with Counties, Tribe, Industry and Land Managers to cut emissions and facilitate production
- Carbon Emissions Regulations for Electrical Generation under CAA 111(d) (Stayed)

Staff Review of Area Recommendations for the 2015 Ozone Standard



Production emissions decline curve



* Using growth and decline factors to project VOC emissions from oil and gas production, Journal of the Air & Waste Management Association Volume 65, Issue 1, 2015

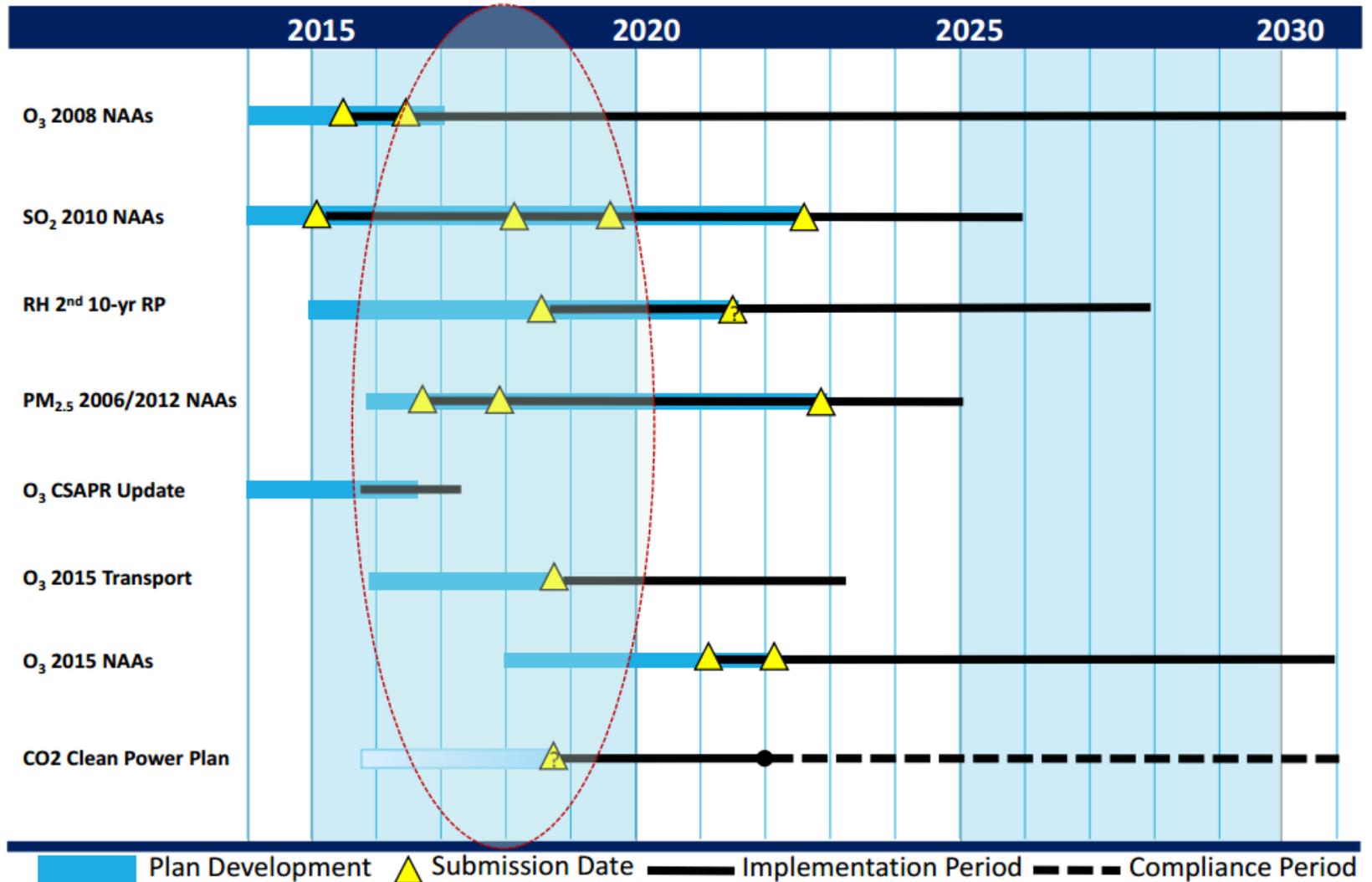
Workload Challenges

- New standards and development of State Implementation Plans
- New monitoring equipment requirements
- Increased expectations for real-time access to air monitoring information
- More public participation in agency actions including appeals



Workload Challenges

Multiple Air Quality Planning Programs June 2016



Future Issues

- Local research that informs local decisions
- Increased Monitoring and Modeling
 - Mercury
 - Air Toxics
- Regional Haze planning



Effects of Regional Haze



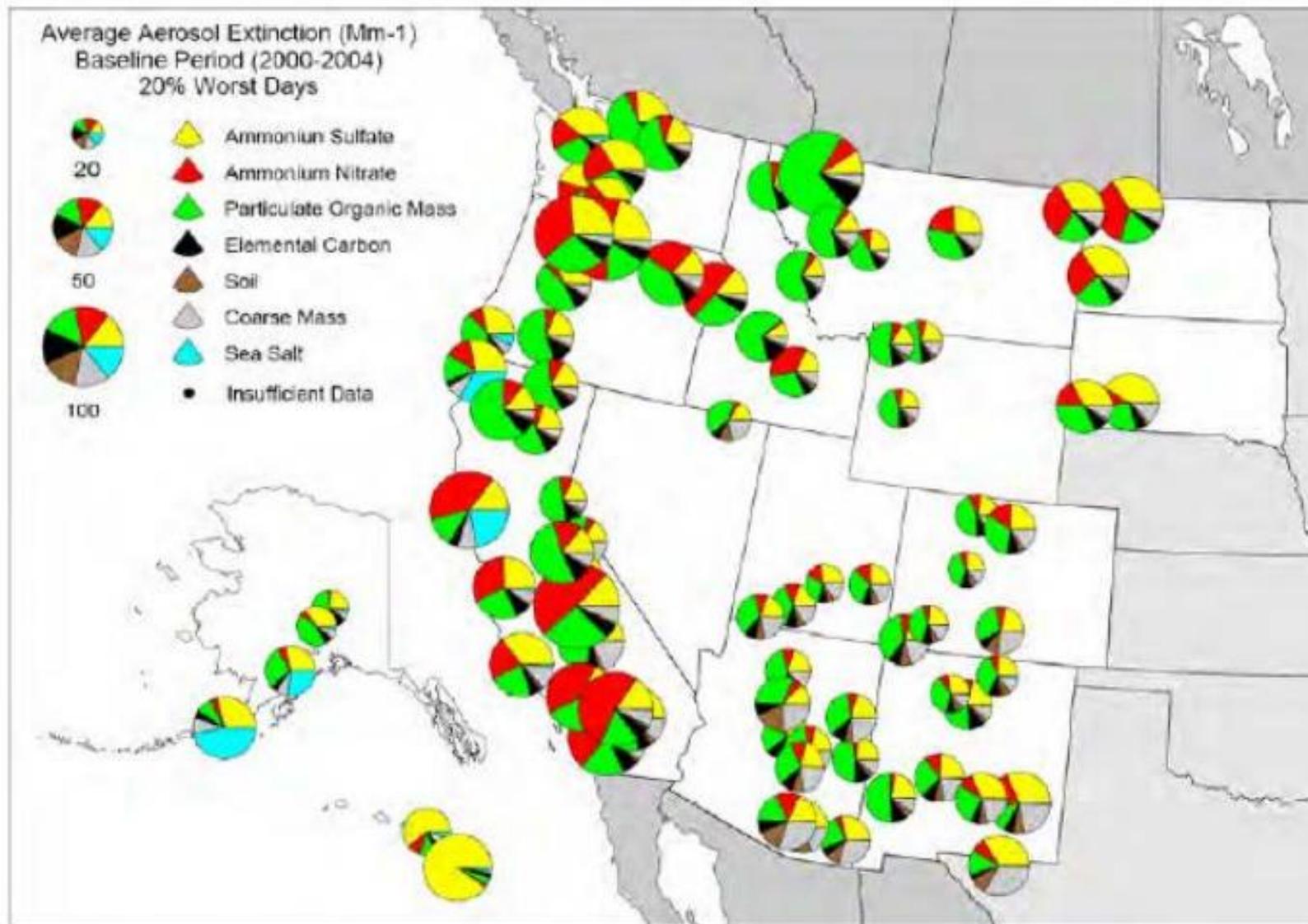
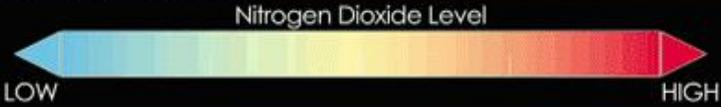
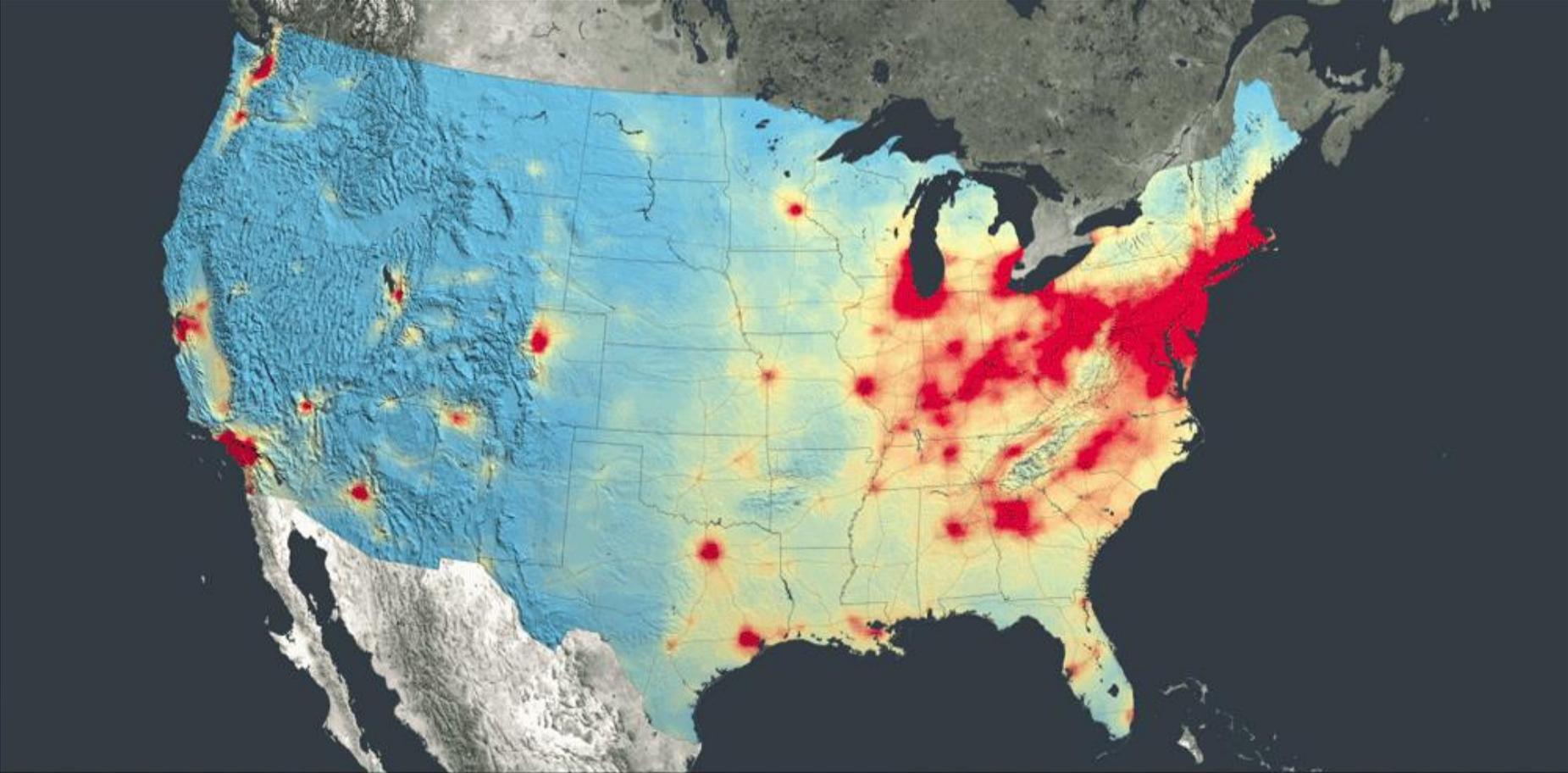


Figure 3.4. Regional Average of Aerosol Extinction by Pollutant for Baseline Period average (2000-2004) for 20% Worst Days.

Nitrogen Dioxide Pollution Levels

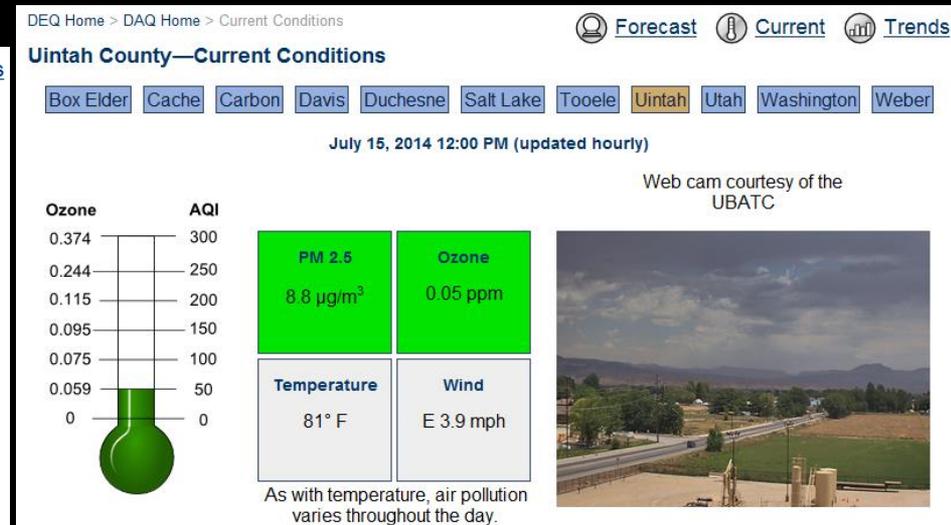
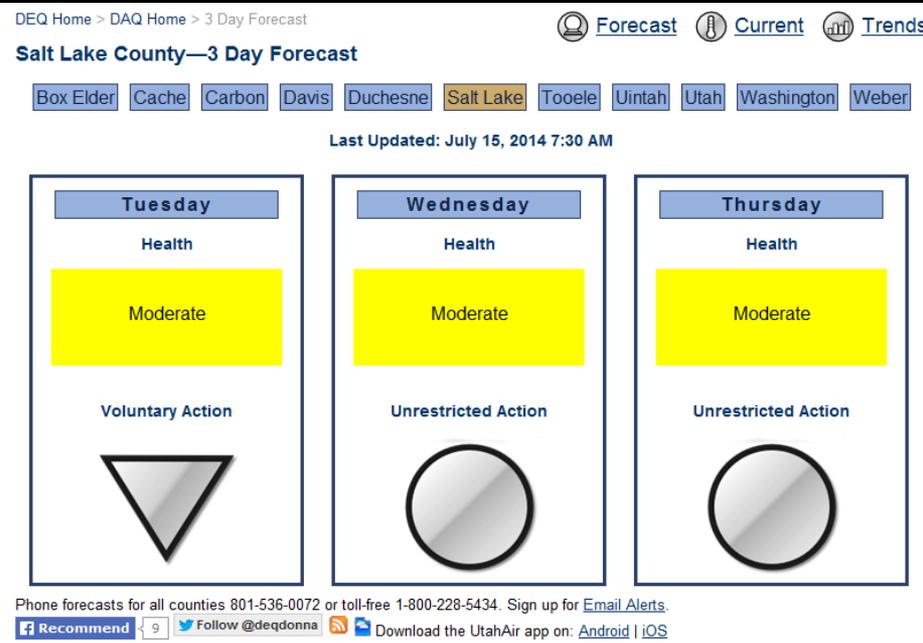


2005

2011

Three Day Forecast

- Notify the Public of:
 - Forecast Air Quality Conditions to allow the Public to Plan Activities
 - Public Health Advisories
- Air Pollution Alert and Action Days



Questions?

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