

Region 8 State Directors 2012 Presentations

1. North Dakota Bakken, **David Glatt**
2. UIC Permitting Guidance for Oil and Gas Hydraulic Fracturing Activities Using Diesel Fuels, **Sadie Hoskie**
3. Oil and Gas New Source Performance Standard, **Carl Daly/Kate Fay**
4. Implementation of an Interagency MOU to Safeguard Air Quality and Improve Coordination for Federal Oil & Gas NEPA Decisions, **Suzan Bohan**
5. Status of Region 8 Regional Haze Implementation Plans, **Carl Daly**
6. Three State Study - Ozone, **Ken Distler**
7. Uintah Basin 2012 Winter Ozone Study Update, **Amanda Smith**
8. WRAP/Westar Work on Regional Transport, **Amanda Smith**
9. Green House Gas – Prevention of Significant Deterioration, **Carly Daly**
10. Building Bridges between Environmental Regulators (State and Federal) and Utility Regulators, **Ken Colburn, John Shenot**
11. Michigan Agriculture Environmental Assurance Program, **Jim Johnson, Jan Wilford**
12. MAX Portal Presentation, **Anthony DeLoach**

Rockin' the Bakken

North Dakota Oil Development

L. David Glatt, P.E.

North Dakota Department of Health



Bakken

Bismarck

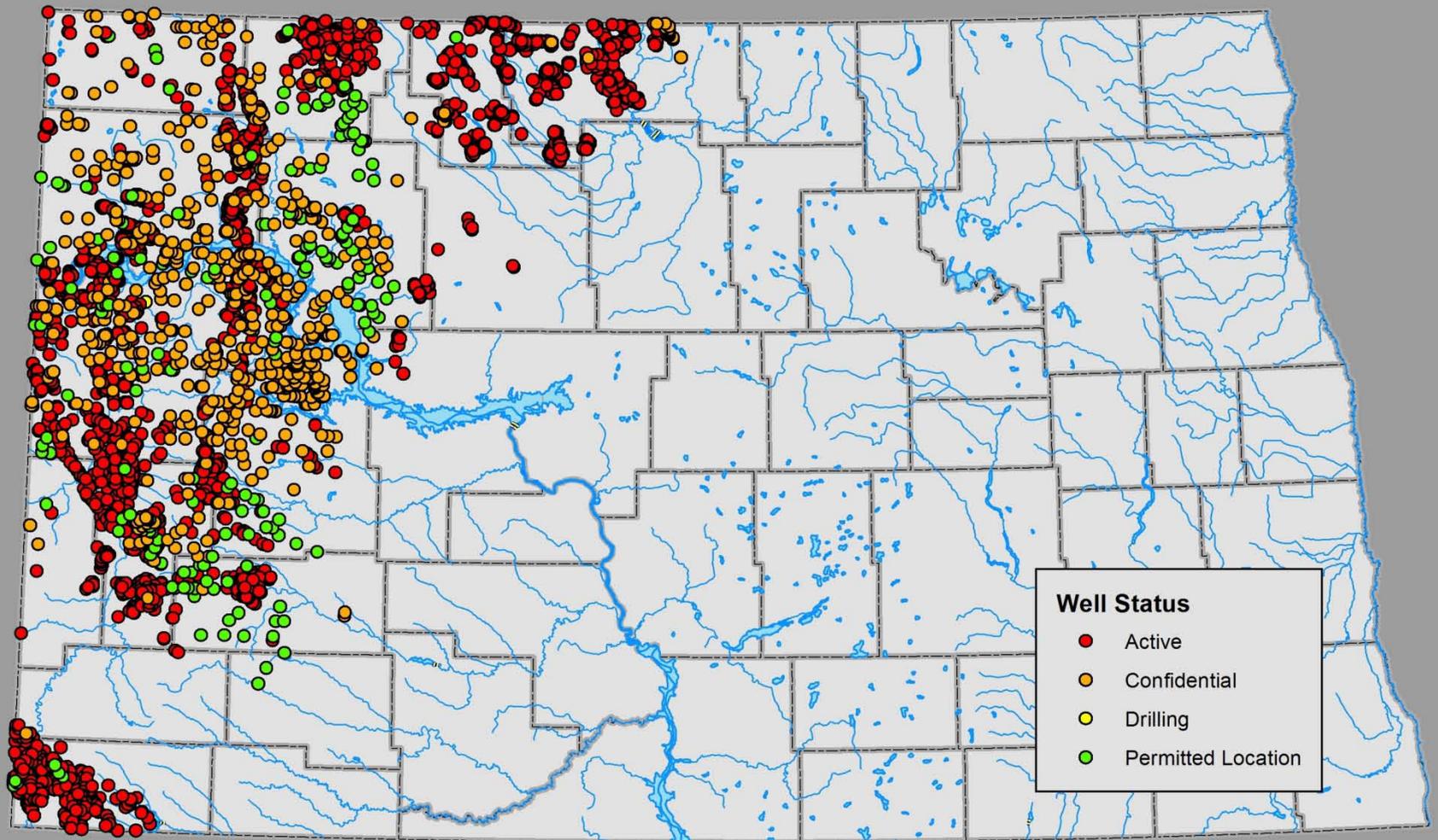
Minneapolis

Sioux Falls

Oil and Gas Activity in North Dakota

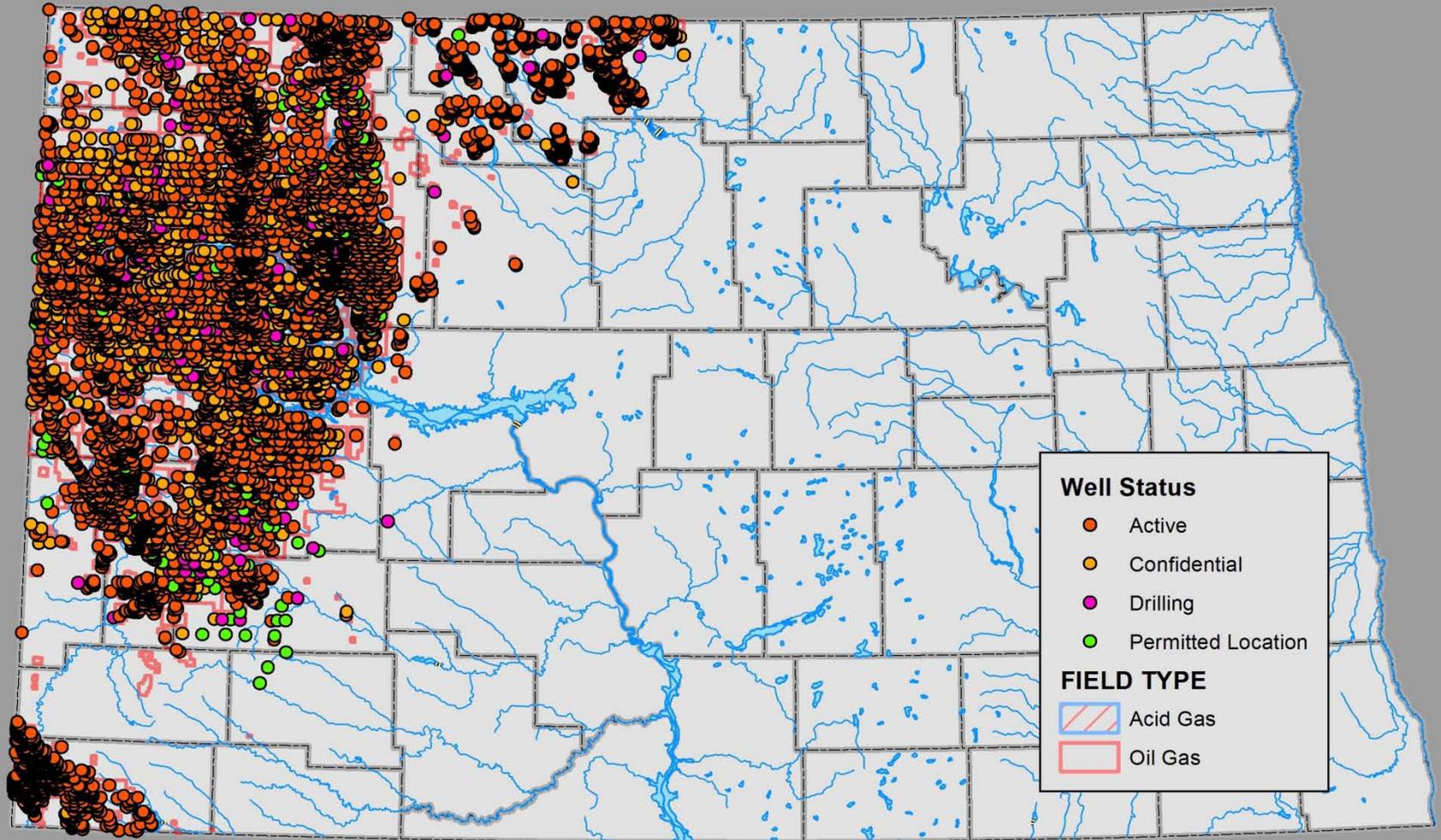
Active, drilling, confidential and permitted locations

1952-2000



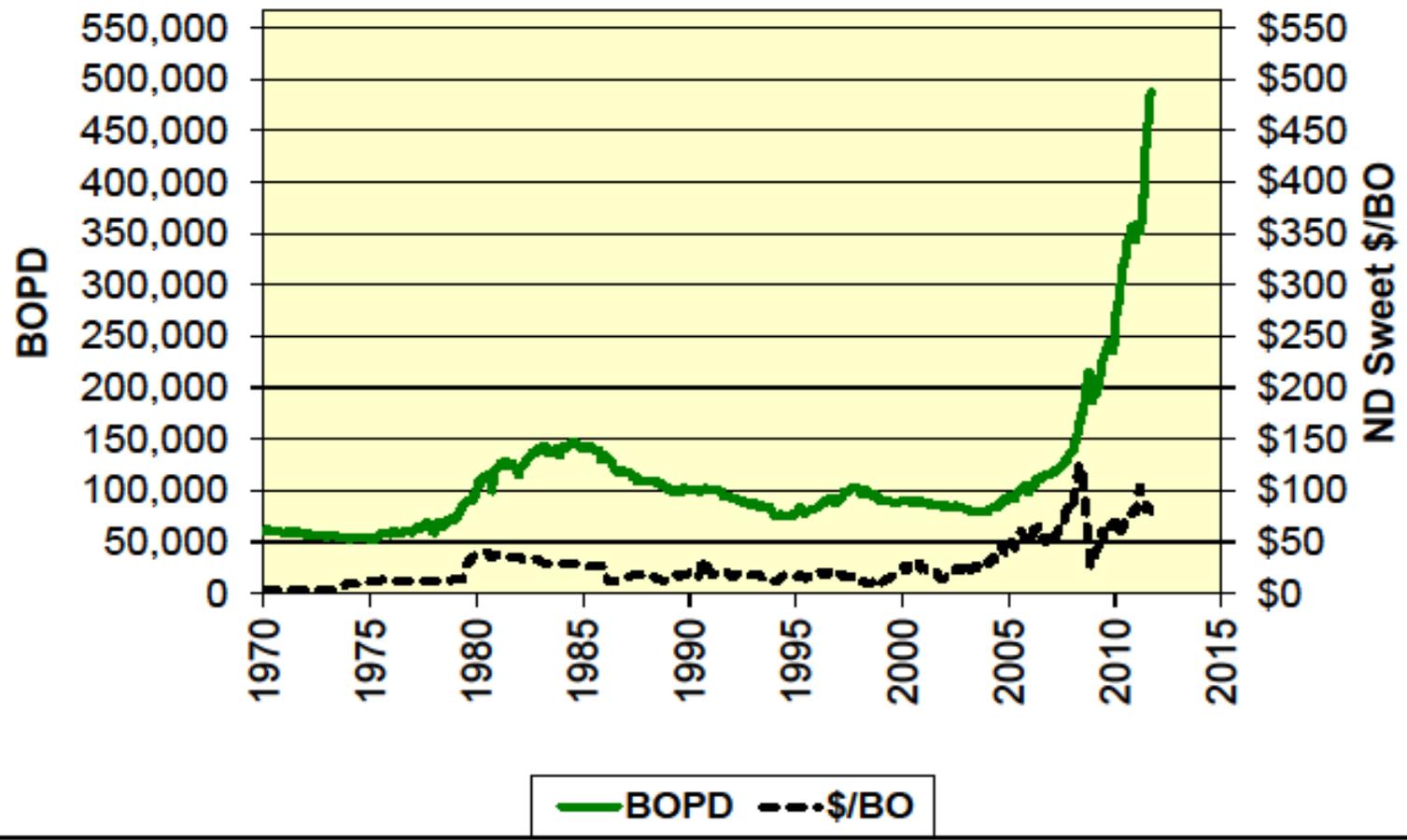
Oil and Gas Activity in North Dakota

All active, drilling, confidential and permitted locations
as of July 23, 2012

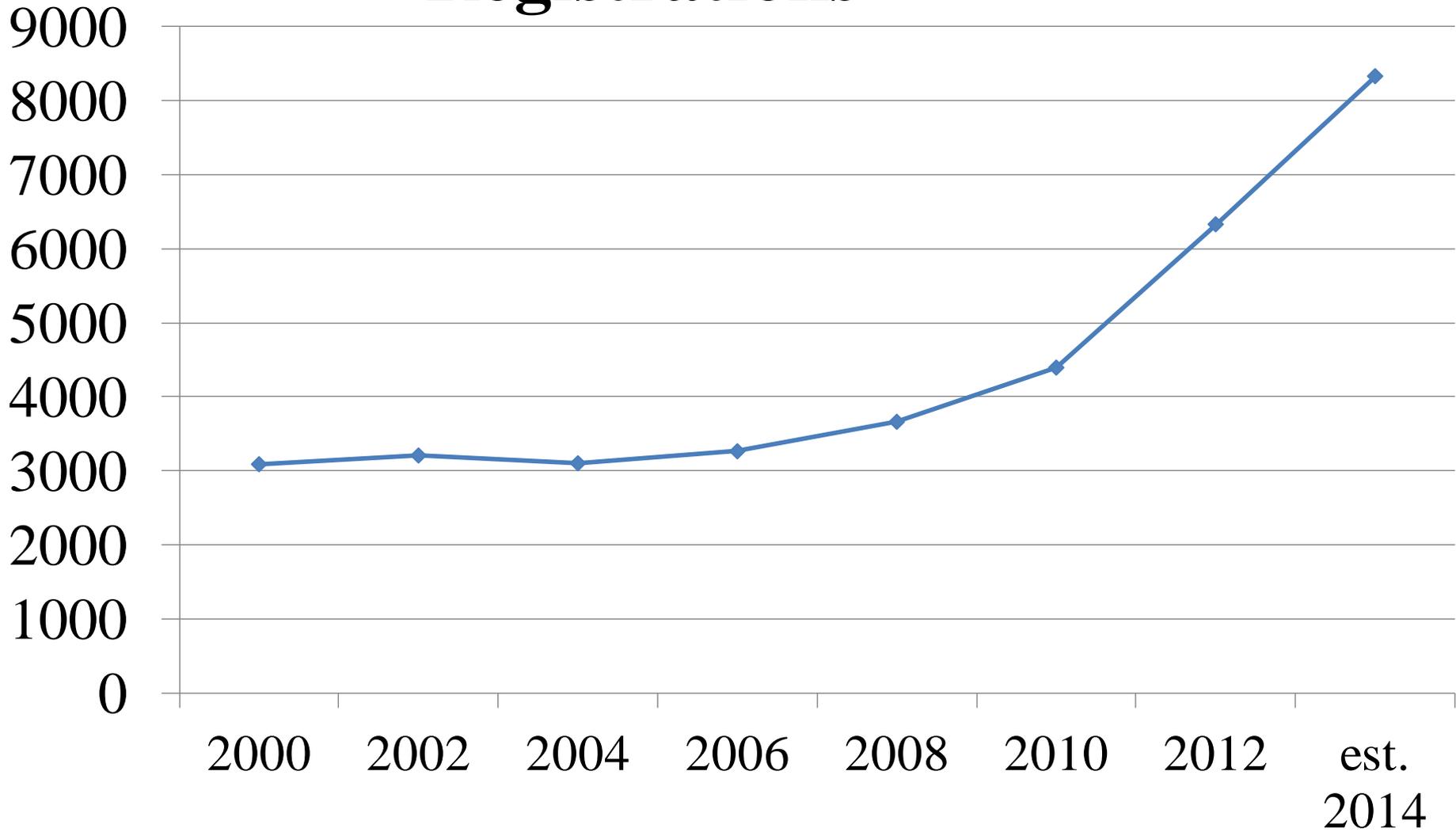




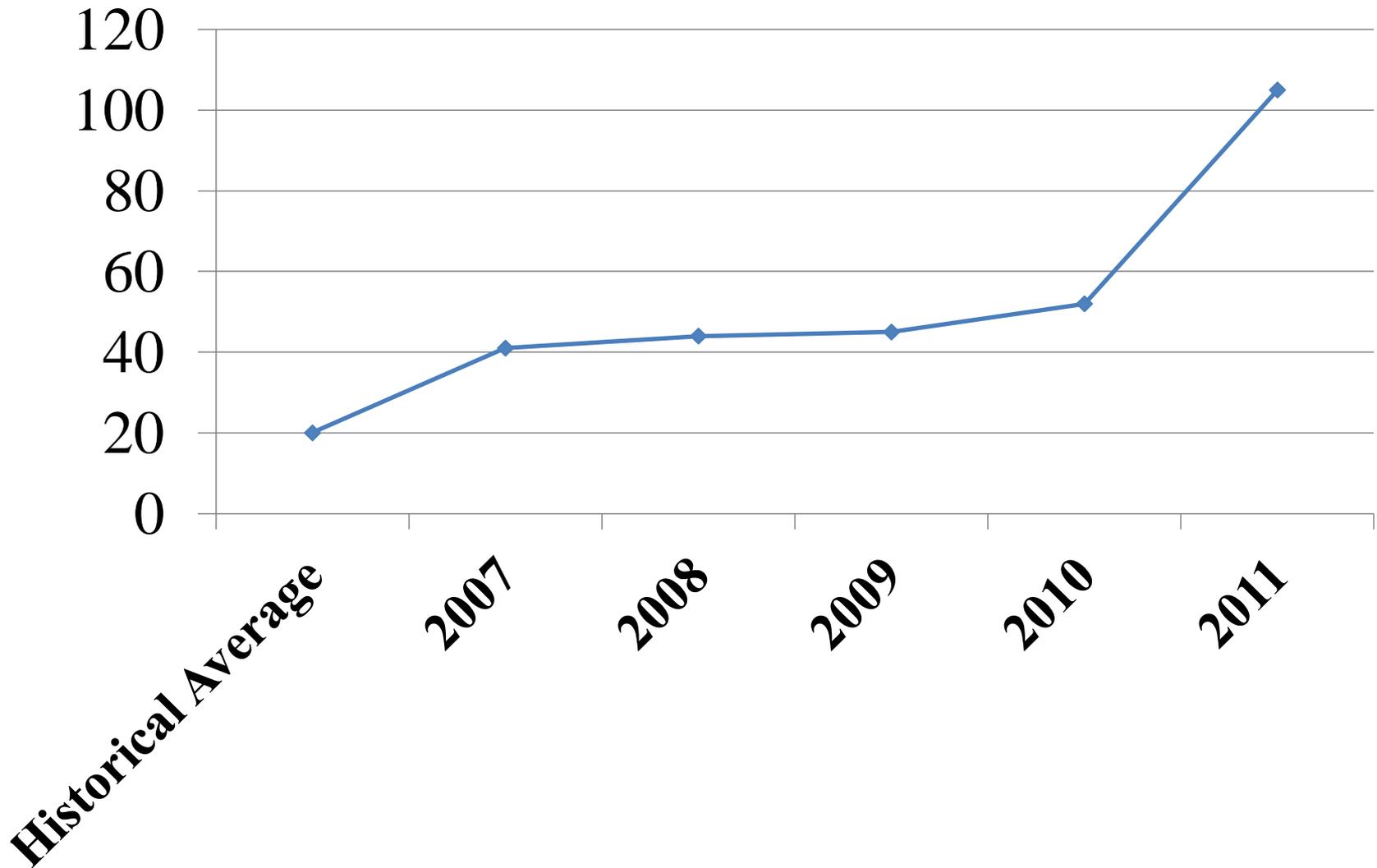
North Dakota Daily Oil Produced and Price



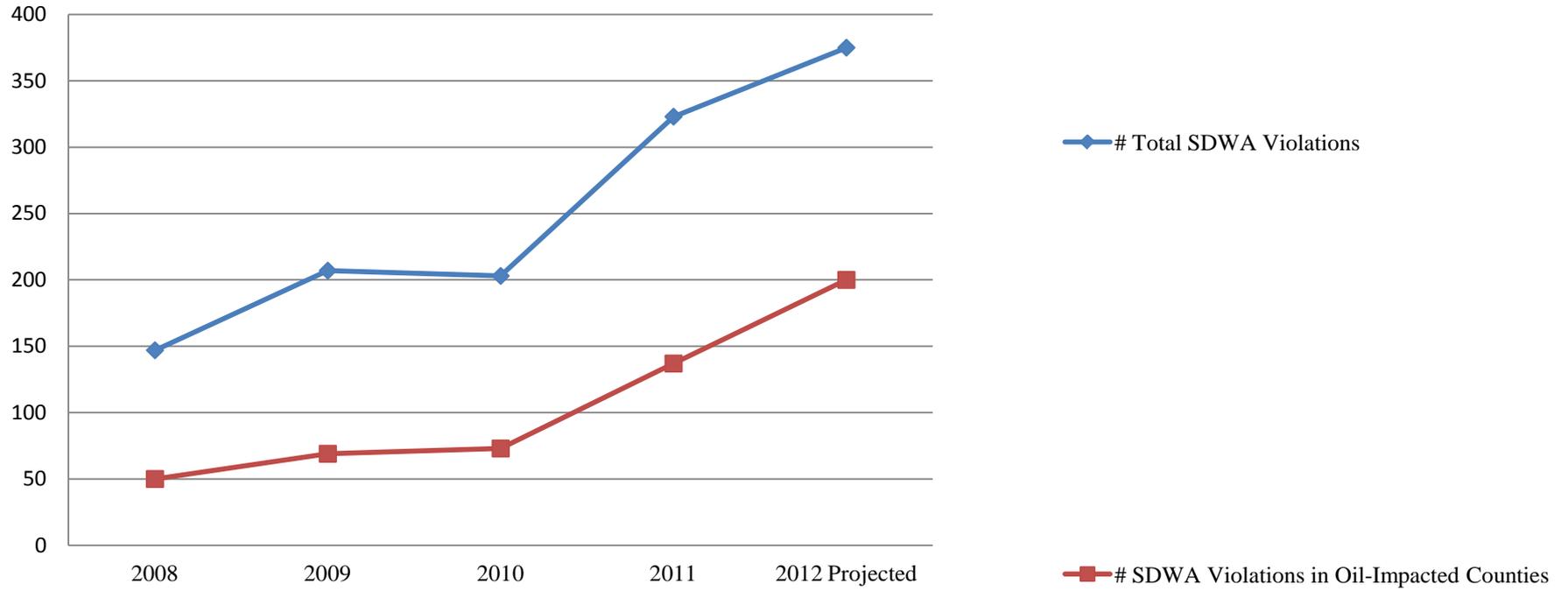
Air Quality Well Permit Registrations



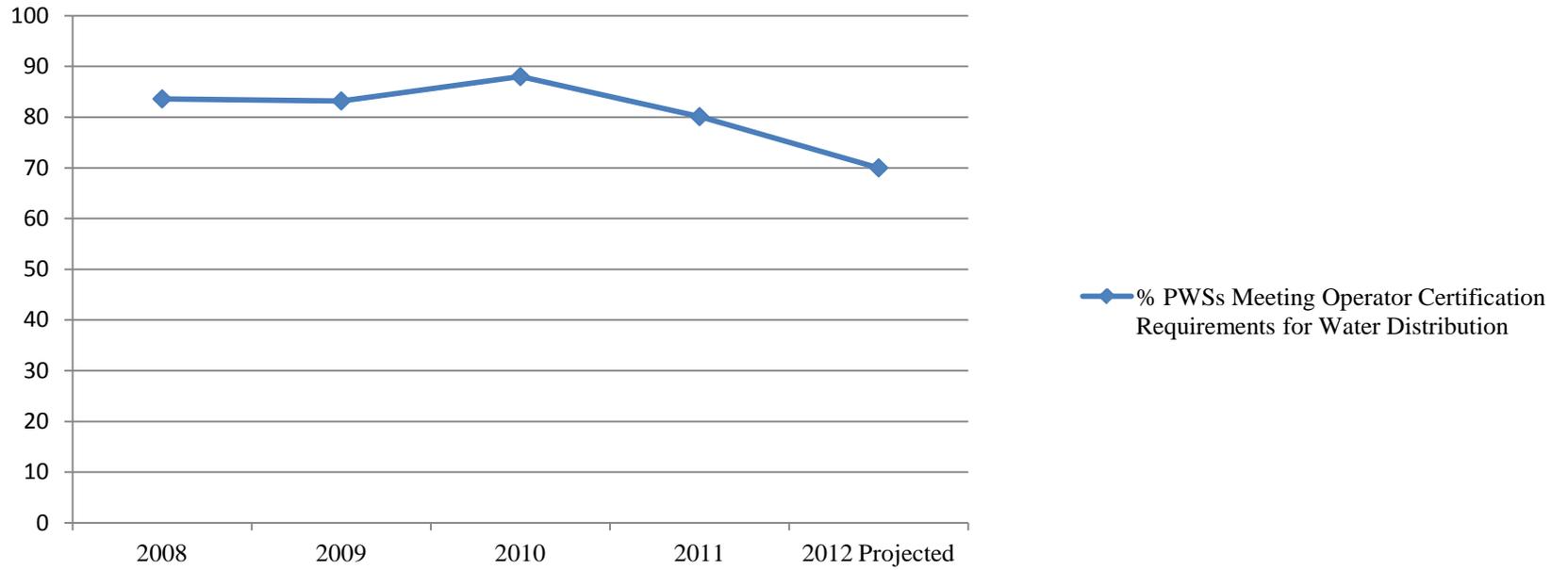
Air Quality Industrial Facility Construction Permits



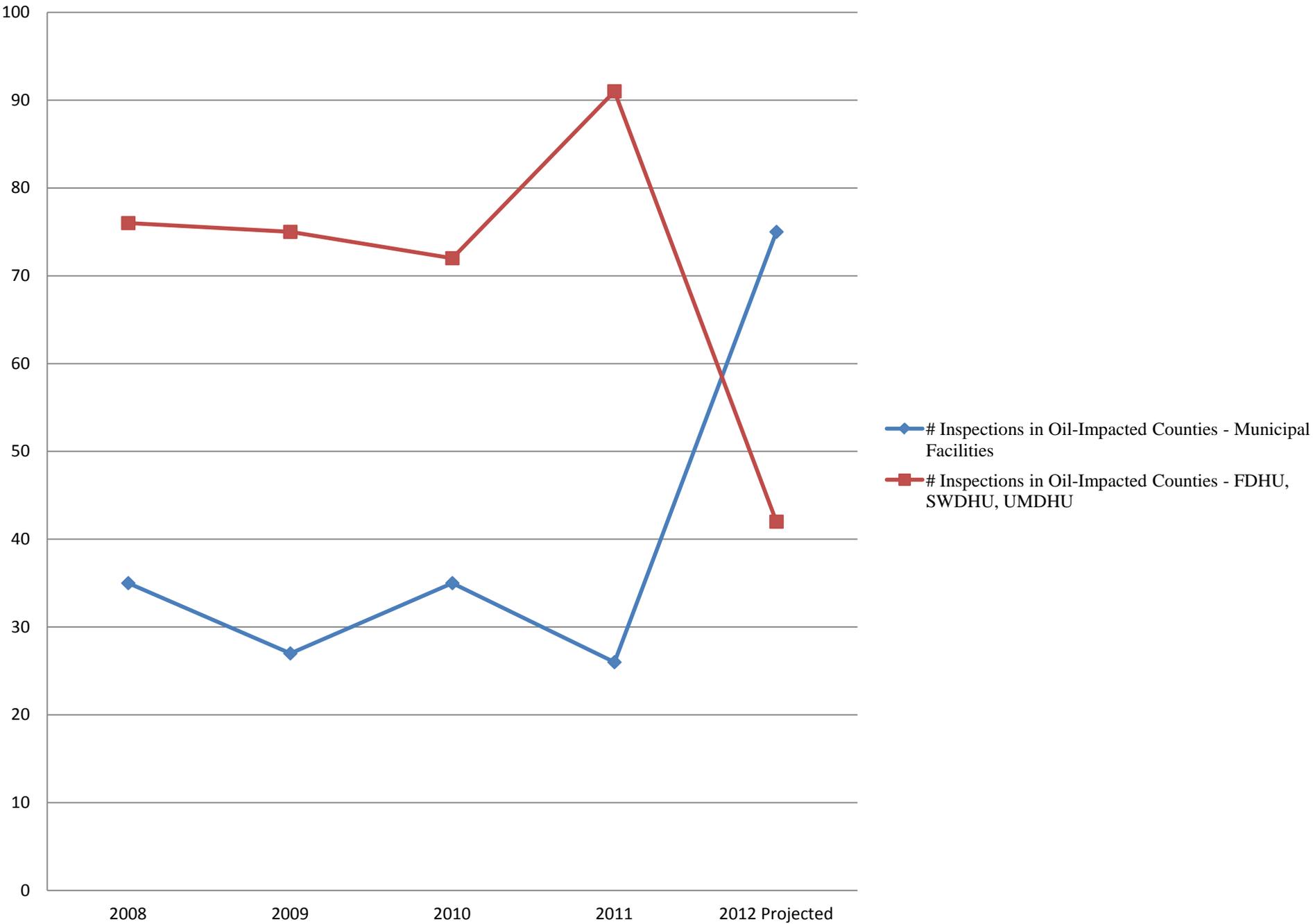
SDWA Violatons



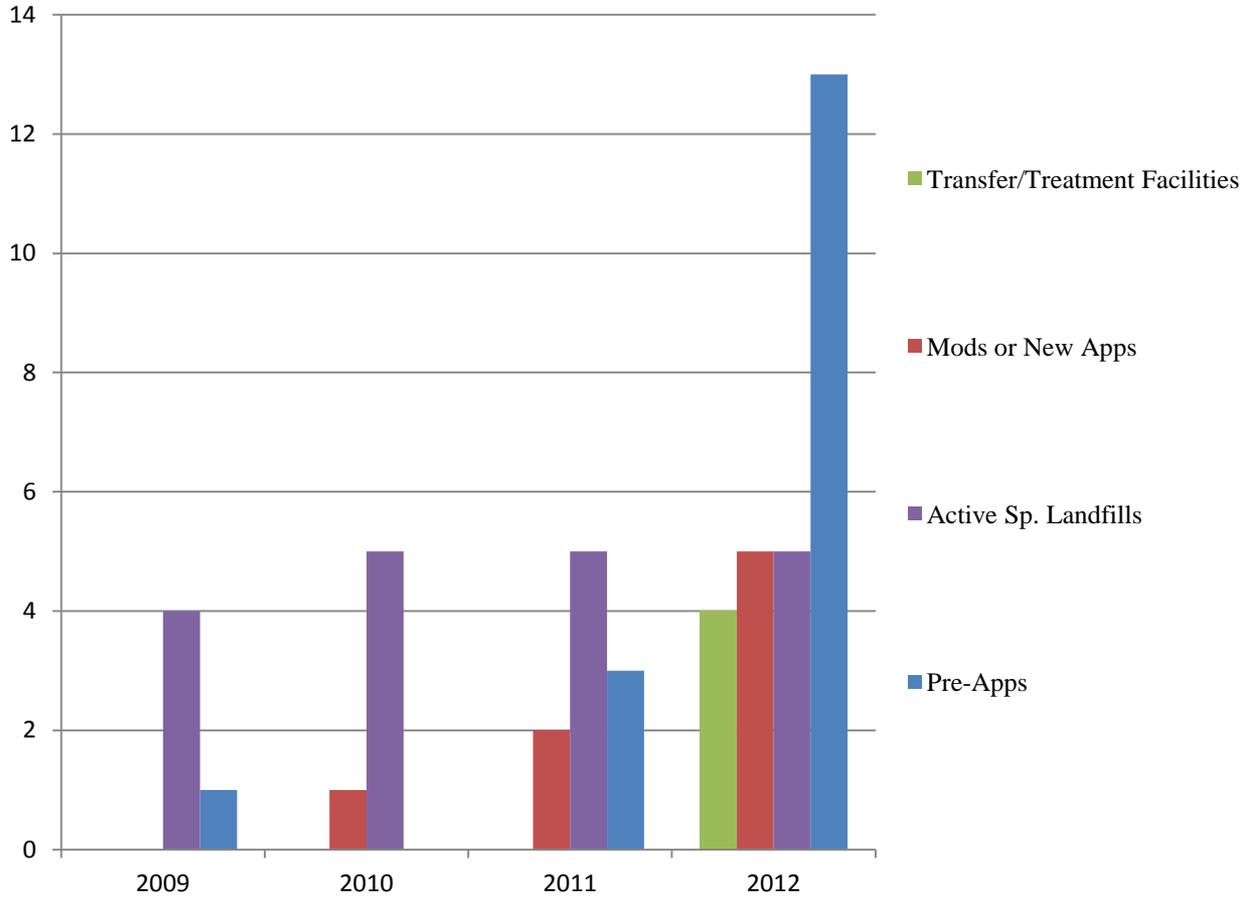
Operator Certification - Water Distribution



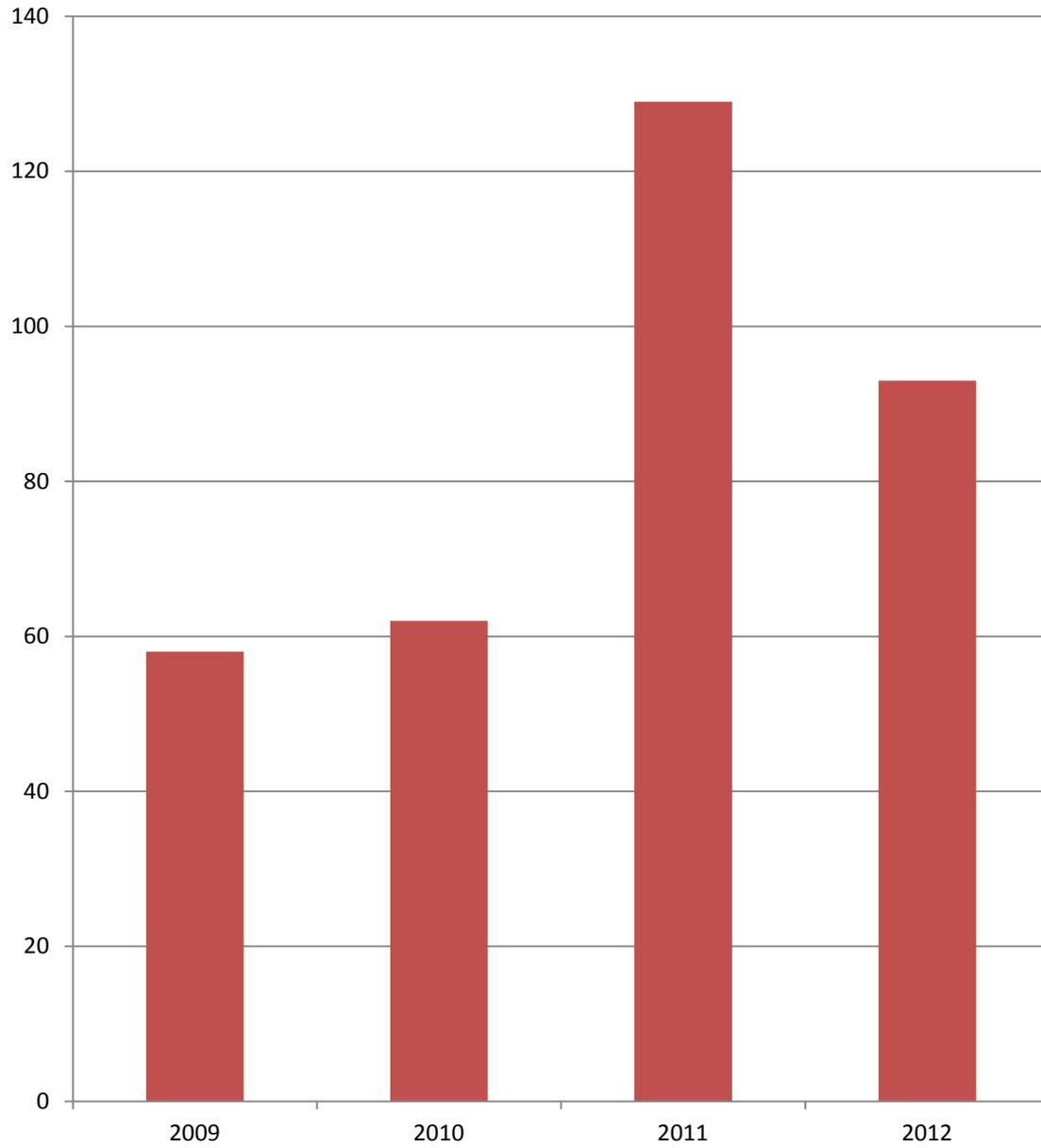
Non-Community Public Water System Inspections



MSW and Special Waste Landfills

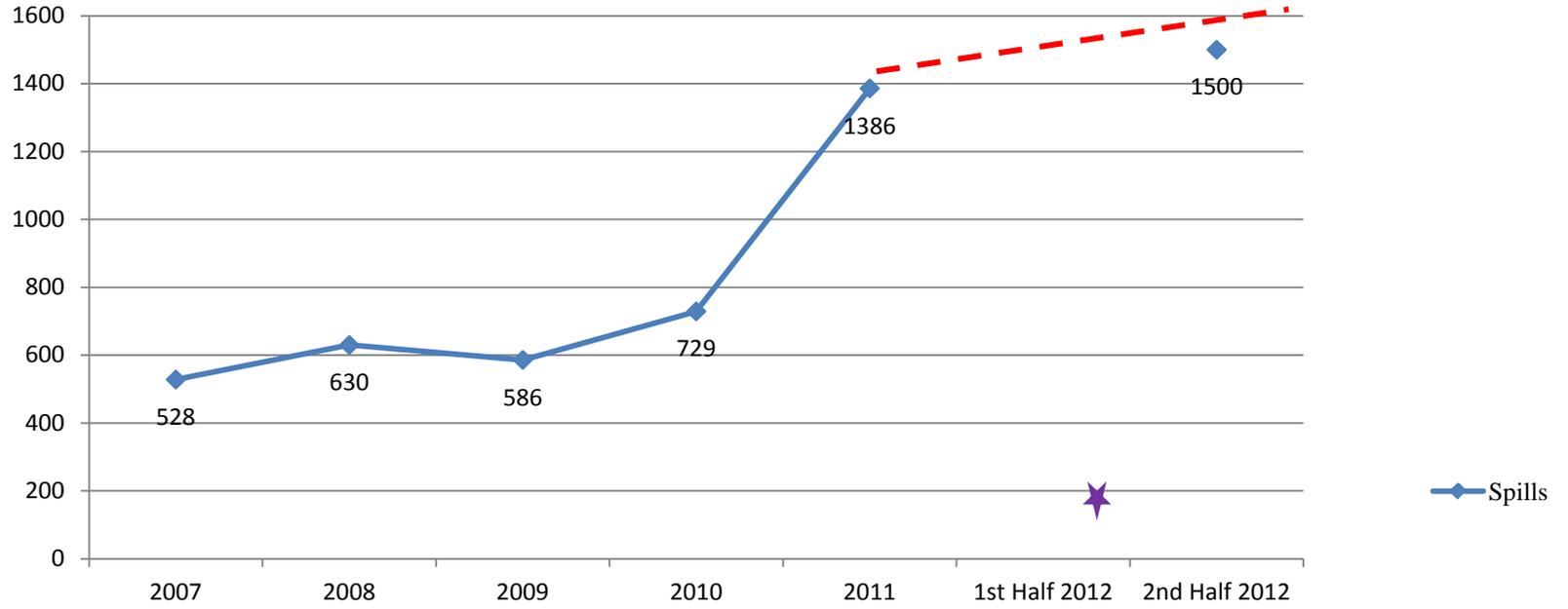


New Waste Transporter Permits



■ New Waste Transporter Permits

Spills

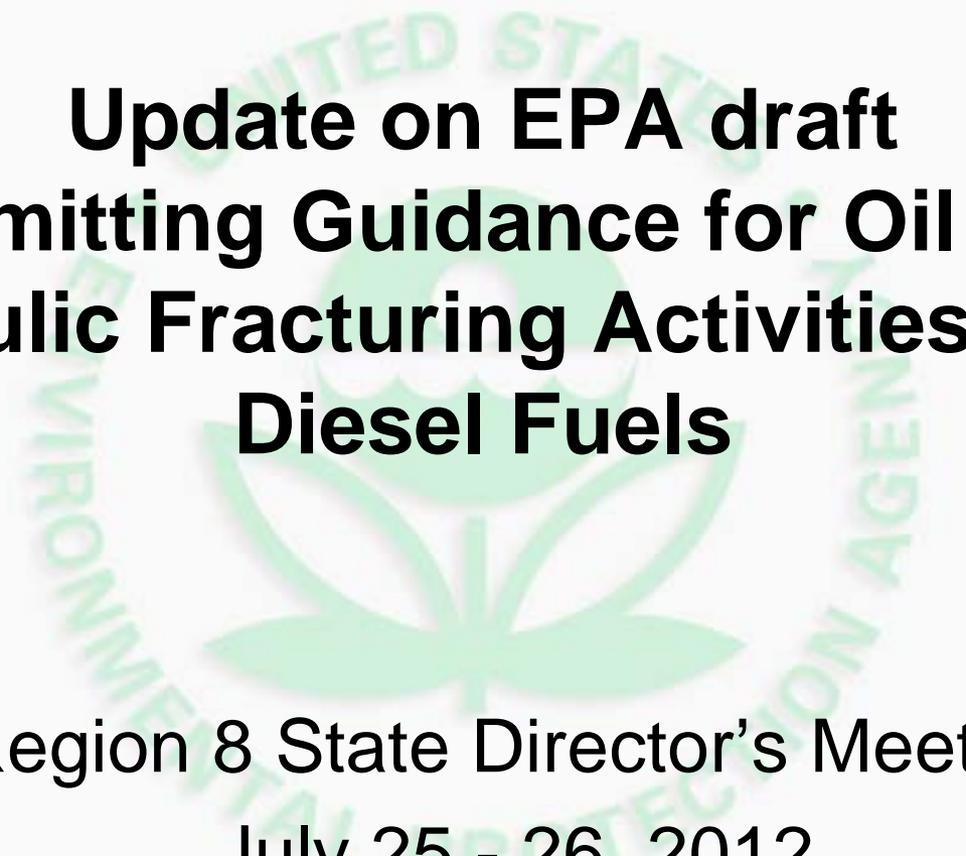


677 Incidents in first half of 2012



Wastewater Challenges





**Update on EPA draft
UIC Permitting Guidance for Oil and Gas
Hydraulic Fracturing Activities Using
Diesel Fuels**

Region 8 State Director's Meeting
July 25 - 26, 2012



Risks and Rationale for Guidance

- **Source Water Availability**
 - Water used for hydraulic fracturing generally comes from public water sources, or directly from ground or surface waters
 - 2-5 million gallons per well may be used depending on the site
- **Groundwater Impacts**
 - Gas or fluid migration from faulty well casing
 - Improper siting, construction or management of UIC disposal wells
- **Surface Water Impacts**
 - Unauthorized surface discharge
 - Publically Owned Treatment Works accepting shale gas wastewater causes concerns for downstream Public Water Systems
 - HF flowback and produced water can contain naturally occurring high concentrations of total dissolve solids, major ions such as: sodium, total dissolved solids, as well as radionuclides.



Guidance Structure

- Applies to EPA UIC direct implementation programs
- Describes current Class II oil and gas injection requirements under SDWA and UIC regulations
- Provides a description of “diesel fuels” for the purposes of UIC Program implementation where EPA is the permit authority
- Provides recommendations for EPA permit writers for tailoring requirements to HF with diesel fuels (DFHF)



Guidance Content

1. UIC Background and Implementation
 - Determination of Class II as appropriate well class
 2. Diesel Fuels Description
3. Use of Area Permits
 4. Information for Permit Application
 5. Area of Review
 6. Permit Duration & Well Closure
 7. Construction & Mechanical Integrity
 8. Operation, Monitoring & Reporting
 9. Financial Responsibility
 10. Public Notification



Diesel Fuels Description

Representative CASRN's

Diesel Fuel / Diesel Fuel No. 1 (68334-30-5)	Diesel Fuel / Diesel Fuel No. 2 (68476-30-2)	Fuel Oil No. 2 / Diesel Fuel (68476-34-6)	Fuel Oil No. 4 / Diesel Fuel No. 4 (68476-31-3)	Kerosene / Marine Diesel Fuel (8008-20-6)	Distillates (Petroleum), Crude Oil / Diesel Fuel (VDF) (68410-00-4)
--	--	---	---	--	---

Note: Guidance does not specify a *de minimis* diesel fuels amount



Key Guidance Recommendations

- Extend surface casing to the base of the lowermost USDW
- Mechanical integrity Test (MIT) before *and after* HF operations to demonstrate no significant fluid movement into USDW
- Consider construction, geologic conditions, and historical activities when determining injection pressures
- Use area permits to address timing concerns associated with public notice
- To address short injection timeframe of HF activity;
 - convert out of UIC program (from injection to production well), or
 - change status to temporarily abandoned after HF injection phase ends, and reduce monitoring, MIT, and reporting requirements during temporary abandonment



Guidance Timeline





Key Public Comment Topics

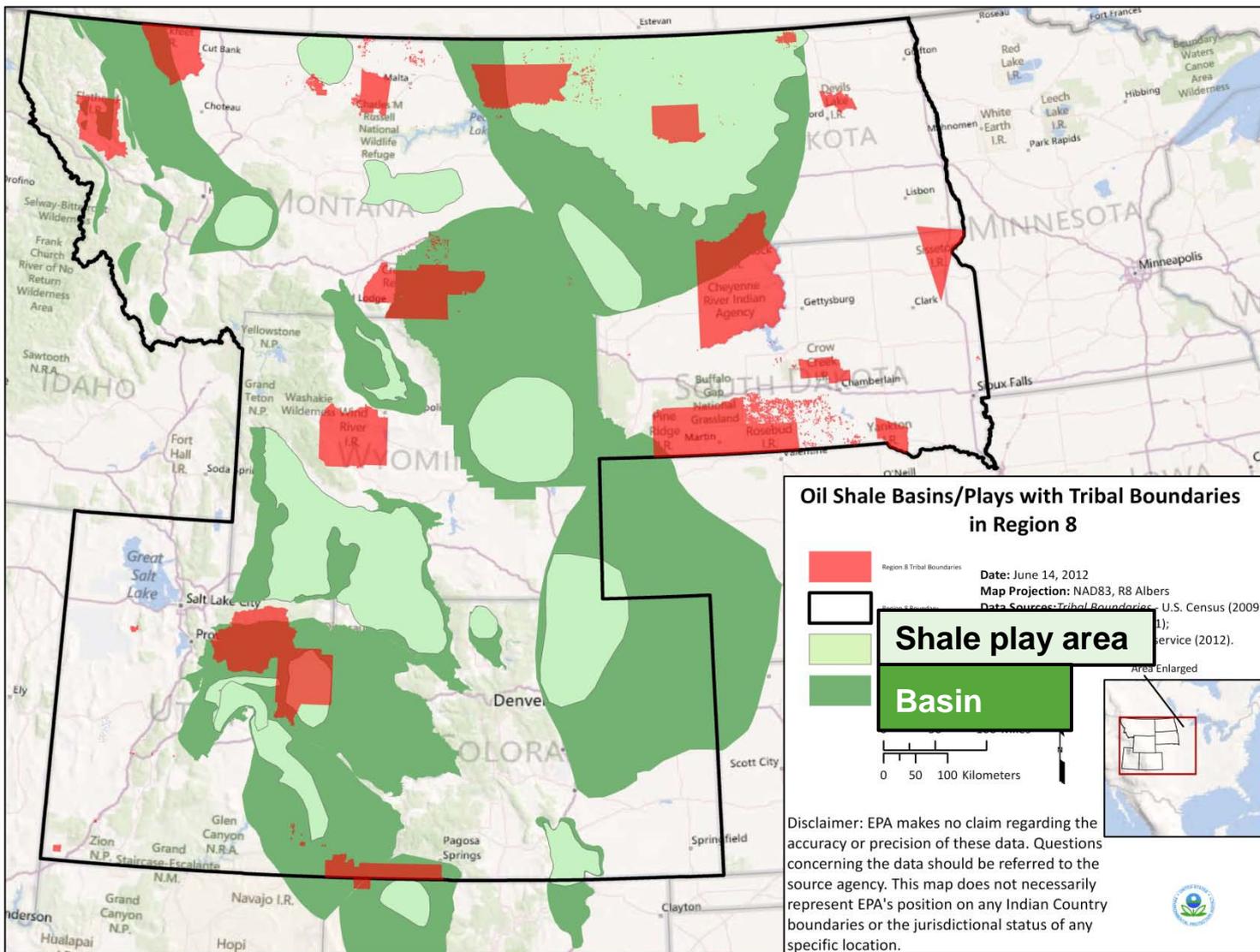
- Definition of 'Diesel Fuels' for UIC permitting
- Absence of any de minimis (threshold) volume
- Tribal consultation
- Significant delays
- Totally ban



Submitting Public Comments

Specify Docket ID No. EPA-HQ-OW-2011-1013

- **Online:** Go to www.regulations.gov, and follow the on-line instructions for submitting comment
- **Email:** OW-Docket@epa.gov
- **Mail:** Permitting Guidance for Oil and Gas Hydraulic Fracturing Activities Using Diesel Fuels - Draft, Environmental Protection Agency, Mailcode: 4606M, 1200 Pennsylvania Ave., NW, Washington, DC 20460.
- **Hand Delivery:** Office of Water (OW) Docket, EPA/DC, EPA West, Room 3334, 1301 Constitution Ave., NW, Washington, DC.



Thank You!



EPA Hydraulic Fracturing Website

www.epa.gov/hydraulicfracturing



Oil and Gas New Source Performance Standard





Implementation of an Interagency MOU to Safeguard Air Quality and Improve Coordination for Federal Oil & Gas NEPA Decisions



Among
Bureau of Land Management
U.S. Forest Service
Environmental Protection Agency
National Park Service
Fish & Wildlife Service



NEPA Requirements

- ▣ Federal agencies must analyze and disclose impacts of major actions
- ▣ Analyze reasonably foreseeable direct, indirect, and cumulative impacts.
- ▣ Identify and evaluate mitigation measures
- ▣ Complete NEPA before action begins



What Does the MOU Mean for Federal Decision Makers & Planners?

- ▣ No change in decision-making authority for Federal oil & gas decisions.
- ▣ Process for gathering and disclosing information now emphasizes collaboration.
- ▣ No change in roles and responsibilities of states or other partners.



MOU Benefits and Expected Outcomes

- Early collaboration will ensure all agencies are informed, have opportunity to participate and reduce disagreements and resulting project delays.
- Consistent consideration and protection of air quality and AQRVs.
- Encourages efficiencies through reusable data, reducing cost and analysis time.



Examples



- ▣ MT/SD RMPs
- ▣ White River RMP





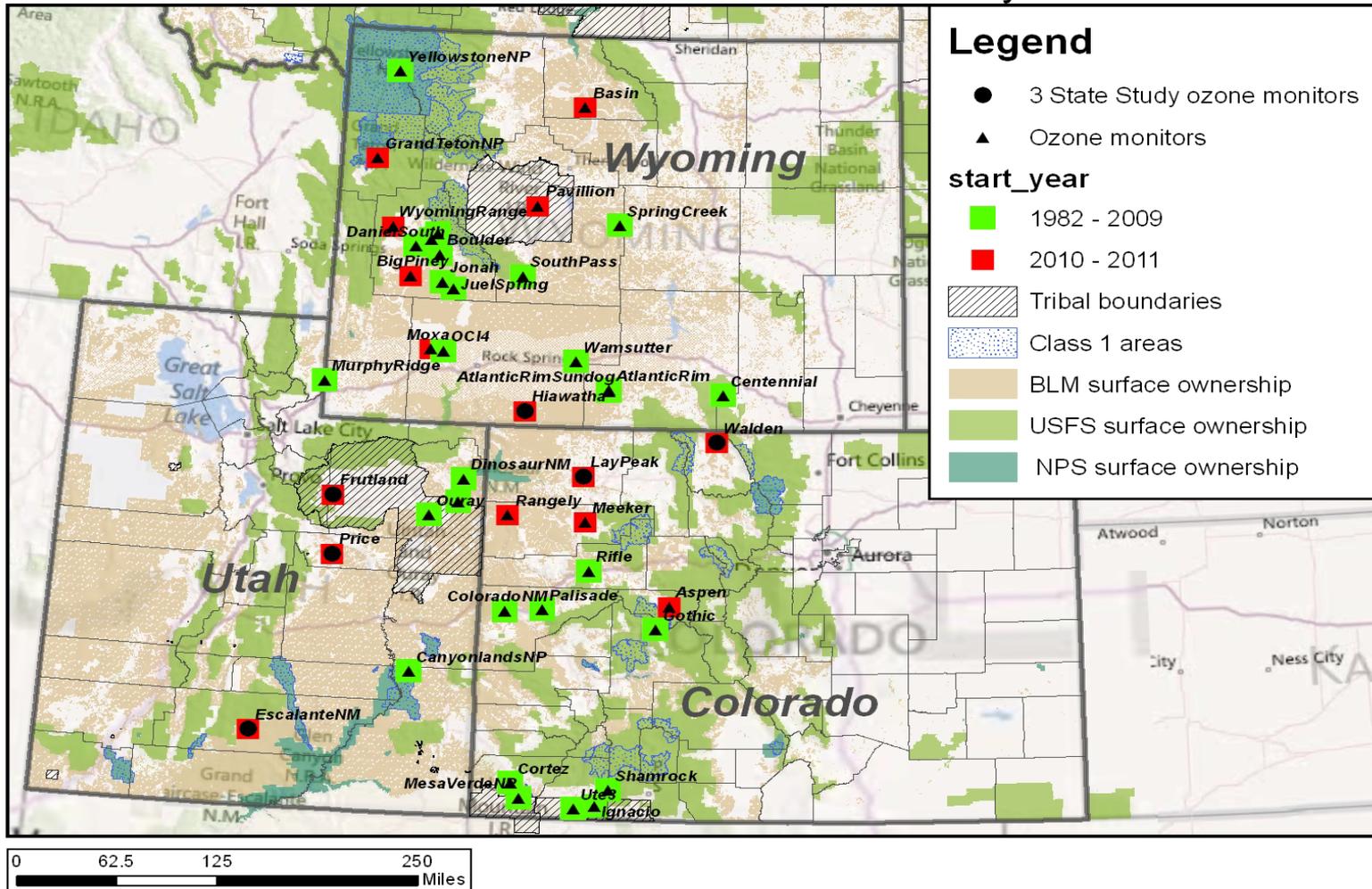
Status of Regional Haze Implementation Plans



3 State Study - Ozone

- Issue
- Study Objectives
- Status

Ozone Monitors in the 3 State Study Area



Disclaimer: EPA makes no claims regarding the accuracy or precision of this data. Questions concerning the data should be referred to the source agency. The Reservation boundaries shown here are suitable only for general spatial reference and do not necessarily represent EPA's position on any Indian country boundaries or the jurisdictional status of any specific location. EPA programs should consult the Office of Regional Counsel for legal advice before making decisions regarding jurisdiction on or near any Reservation.

Uintah Basin 2012 Winter Ozone Study Update

Uintah Basin Air Quality /Oil & Gas Meeting

July 11, 2012

Brock LeBaron, UDEQ

Purpose: understand how ozone is formed in the Basin during wintertime inversion conditions. Identify the chemical pathways that are unique to the Basin's winter situation.

Cooperative Funding and Research

Study team meeting at the BRC





Horse Pool Super Site

Installation of scaffold tower and monitoring pod



Horse Pool Super Site

Monitoring equipment in monitoring pod



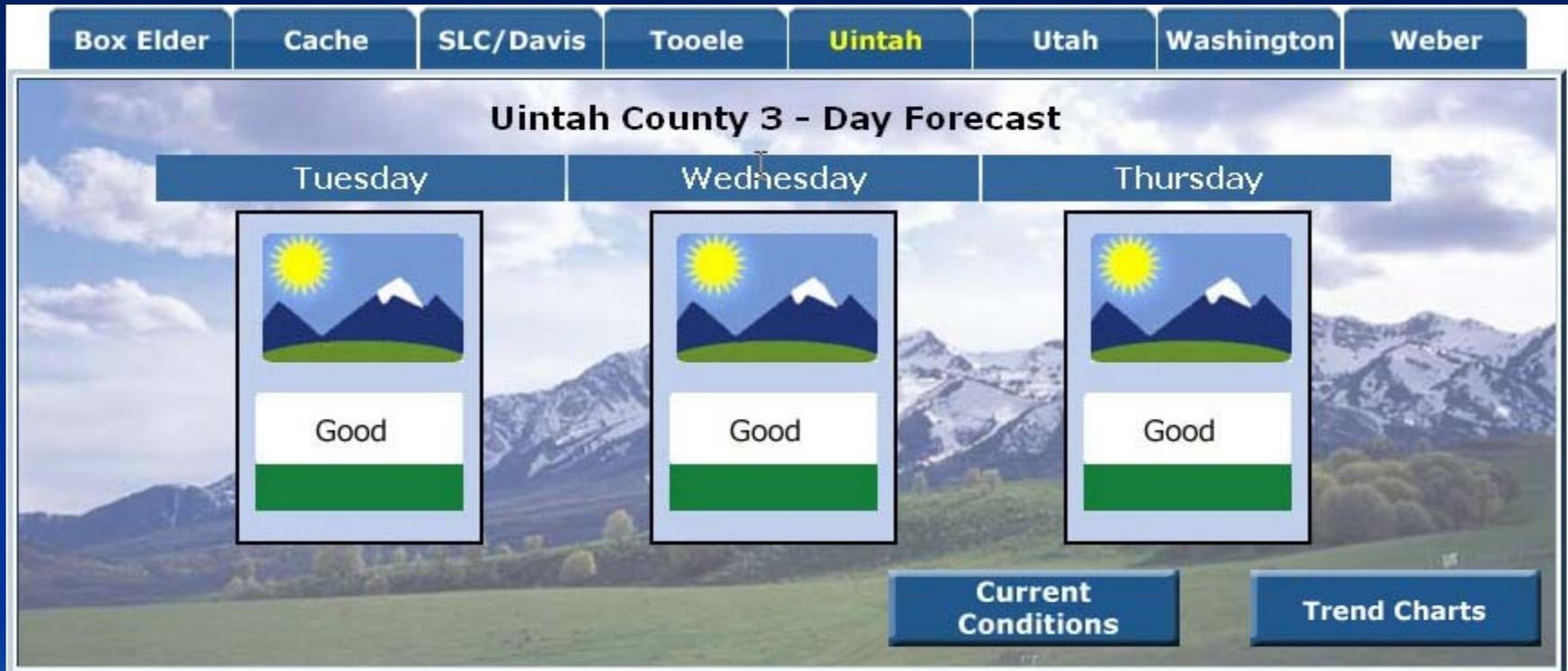
Study Report

- Study was very successful even though strong inversion conditions and snow cover never developed.
- Researchers are currently compiling their results and drafting conclusions to be published in the study report due out this October.
- Recommendations for further research and a direction for ozone mitigation will be part of the report.



Public Notification

Reporting current conditions and daily forecast



Air Quality Tutorials

- Air Quality: [WMV](#) | [MP4](#)
- How to Use DAQ's Web Site: [WMV](#) | [MP4](#)
- Recess Guidance: [WMV](#) | [MP4](#)

Website: www.airquality.utah.gov



Monitored Ozone Values

Standard is 75 ppb – 4th high averaged over 3 years

Site	2009	2010	2011	2012 (thru 4/24)
Ouray	-	117	116	59
Redwash	-	98	100	59
Whiterocks	82	-	- / 64	61
Myton	94	-	111 / 65	62
Vernal	-	-	-	55
Fruitland	-	-	- / 65	60
Dinosaur	-	-	90	62

* Bold values indicate regulatory data



Summary

- Recognition of an air quality problem
- Proactive approach to finding a solution
- Cooperative, voluntary effort
- Mitigation will be science based
- Credit for early reductions





Questions?





Ozone Advance Program

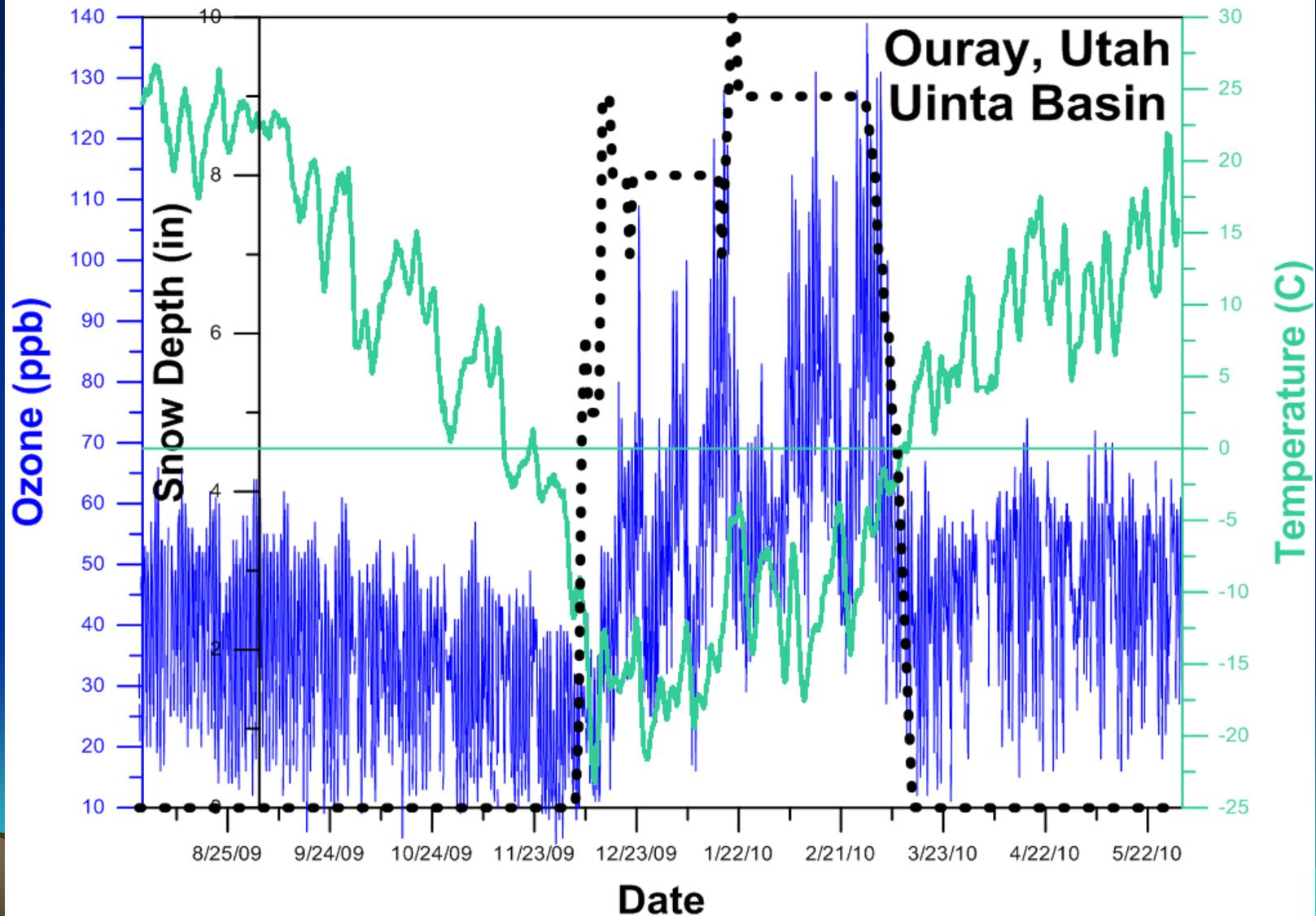
- Governor Herbert requested enrollment of the Uintah Basin on May 21, 2012.
 - Provides a framework to achieve early reductions prior to non-attainment.
 - Accelerates improvements to public health.
 - Ensures that new development continues in the Basin using the best available technology.
 - Provides an avenue to give credit to companies for early action.
 - Provides technical backstop for NEPA regulatory evaluation.
- 



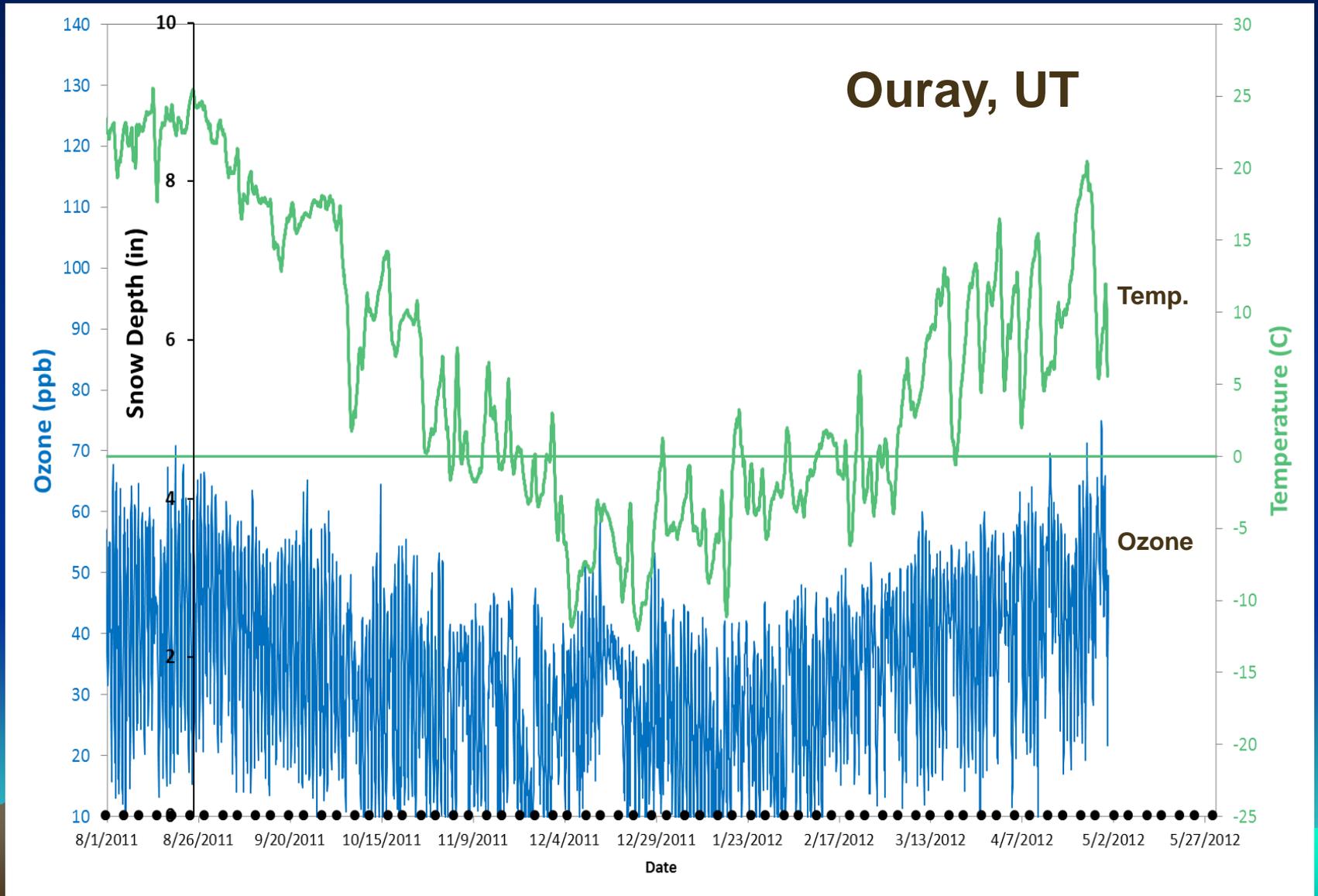
Early Reductions Will Benefit the Uintah Basin

- Improve public health
 - More time to solve the problem
 - Reduce the design value for the SIP
 - The CAA requires areas to be designated based on the severity of the problem
 - Areas closer to the standard have fewer mandatory requirements
 - Potential cost savings for companies
 - Make reductions over time rather than all at once
 - Greater ability to control emission reduction strategy
 - Ability to use voluntary measures and strategies
 - Episodic reductions could be effective
- 

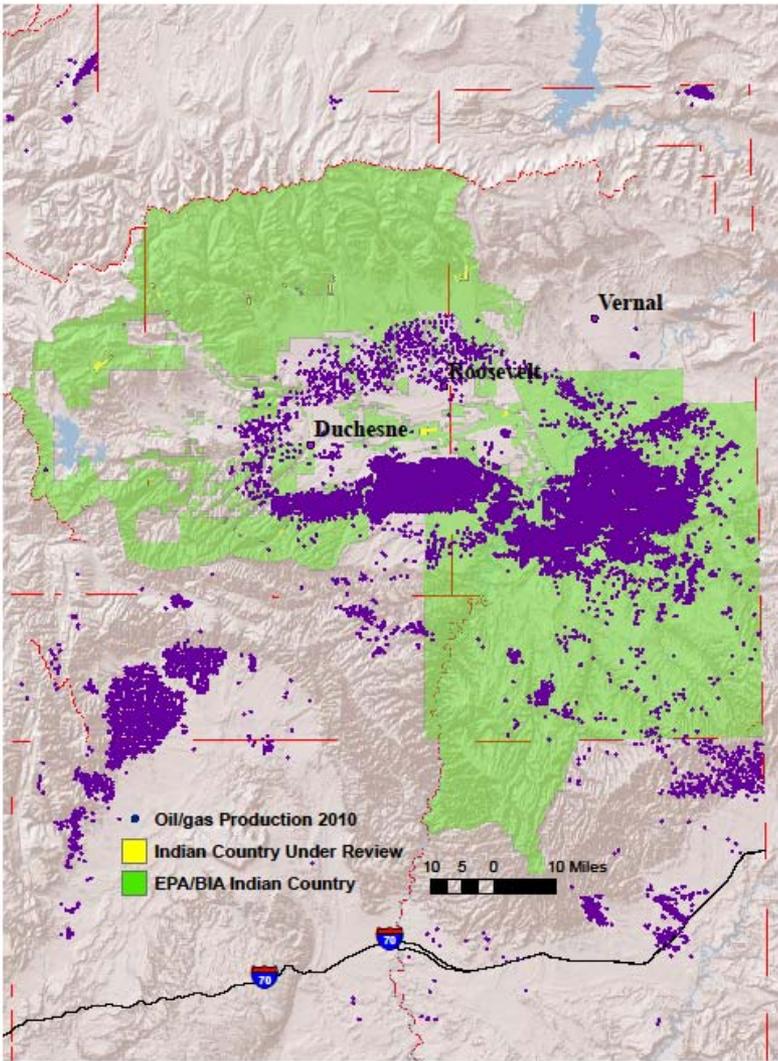
Ozone, Temperature and Snow Depth



Ozone, Temperature and Snow Depth 2011/2012



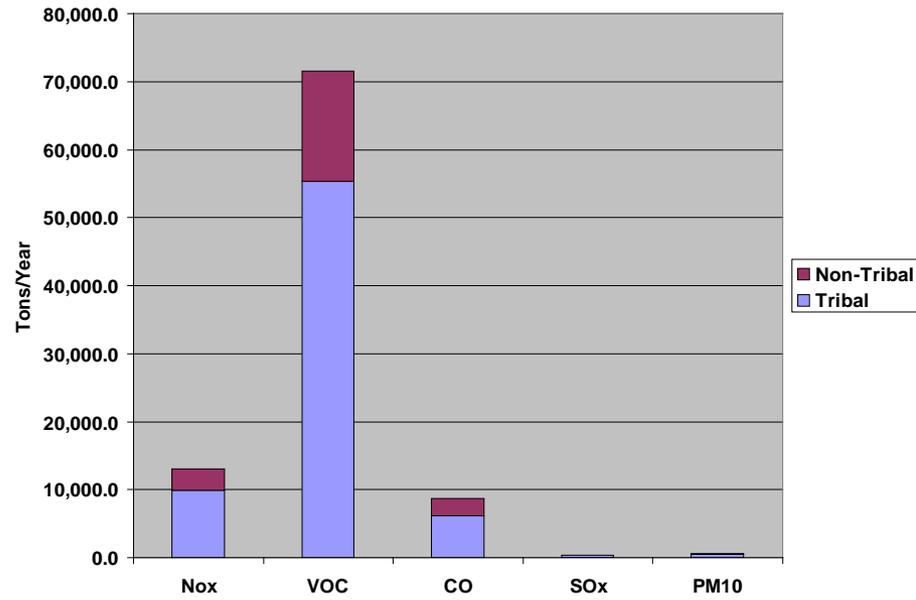
Uintah Basin Air Quality Jurisdiction



Utah Division of Air Quality January, 2011

Regulatory Authority

Tribal vs State Oil/Gas Emissions



* WRAP 2006 Oil/Gas EI - mobile not included



Summary

- Monitoring data indicates an ozone problem although “regulatory” data is meeting the standard
- We have a window of opportunity to mitigate the problem and this has a number of benefits
- Technical experts are evaluating the science so mitigation moves in an appropriate and effective direction
- Jurisdictional issues to address

Website: www.airquality.utah.gov

Click on [Uintah Basin Air Quality and Energy Development](#)



Designation and SIP Process – Ozone

(Sequential Timeline)

Regulatory Monitor Shows 3-Year Average of the 4th High > 75 ppb

EPA Notice to the Governor of Likely Nonattainment

1 yr for Governor to Recommend Nonattainment Status

1 yr for EPA to Publish Final Nonattainment Designation

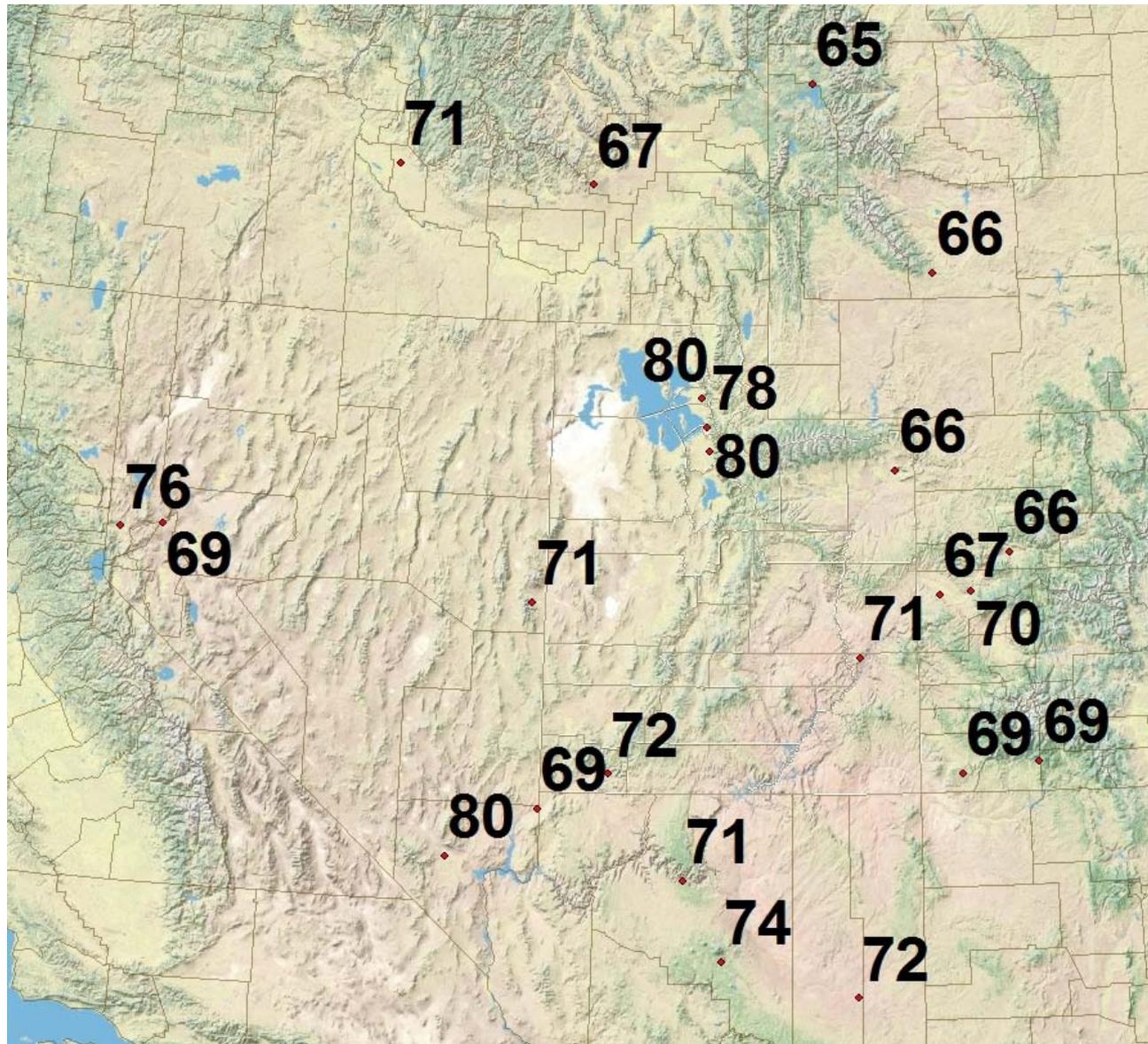
3 yrs to Write State Implementation Plan (SIP)

1 yr to Have Controls in Place

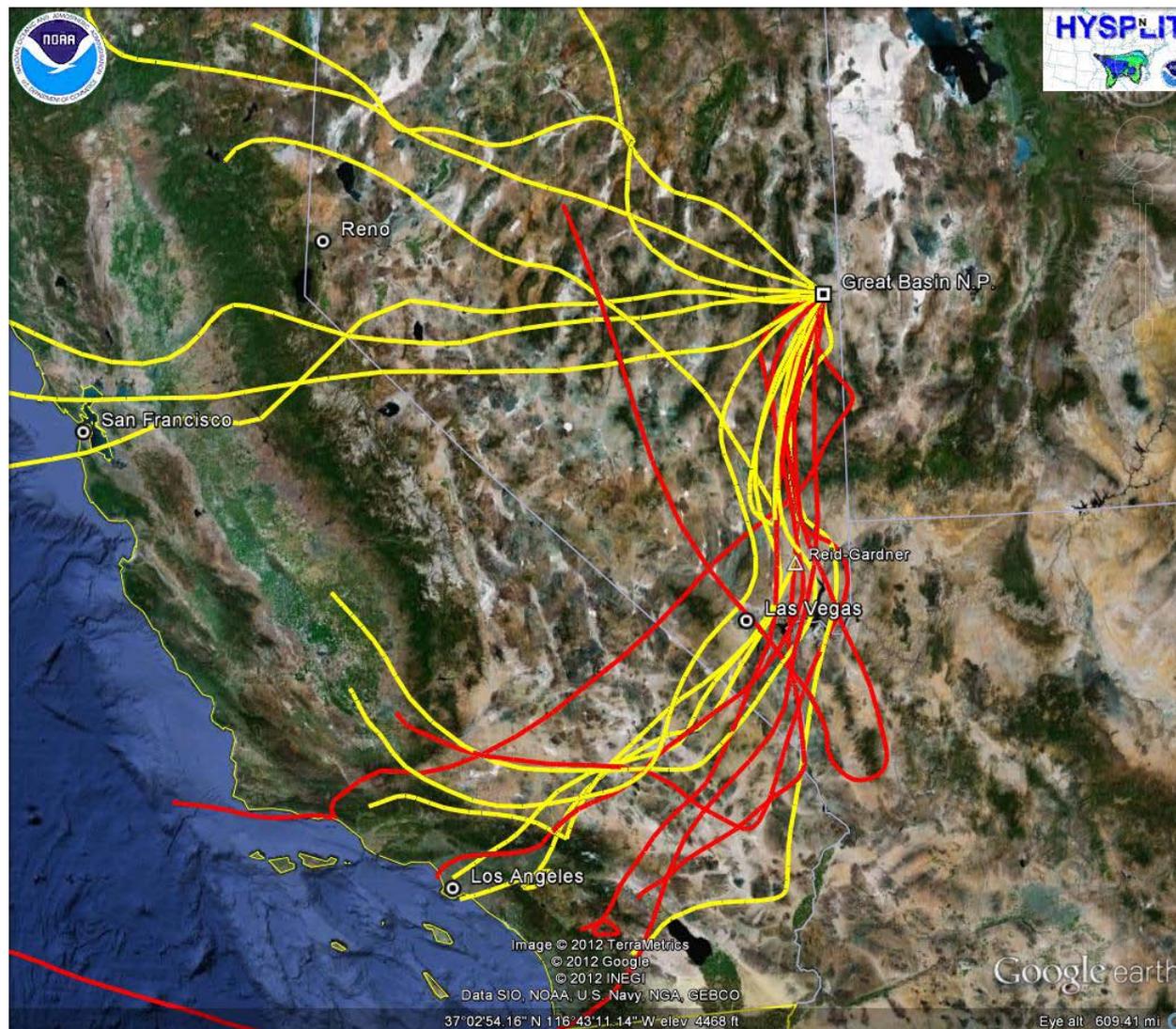
Each of the Next 3 yrs Must Meet the Standard or Bump Up



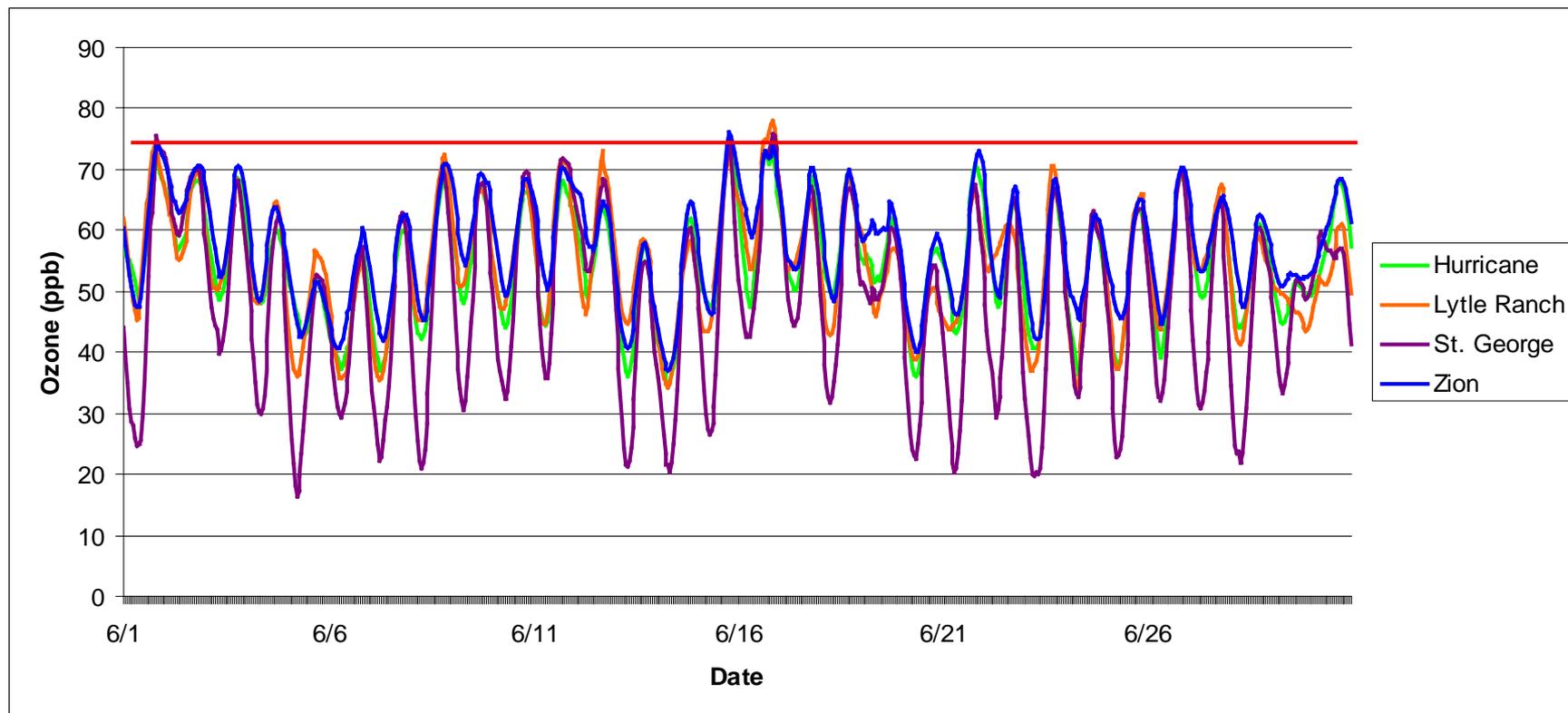
Western Ozone 4th High Values (2008)



NOAA HYSPLIT back trajectories for Great Basin National Park. Trajectories with 8-hour average ozone >70 ppb are in red. Trajectories with 8-hour average ozone >65 ppb, but <70 ppb are in yellow.



June 2011 ozone concentrations





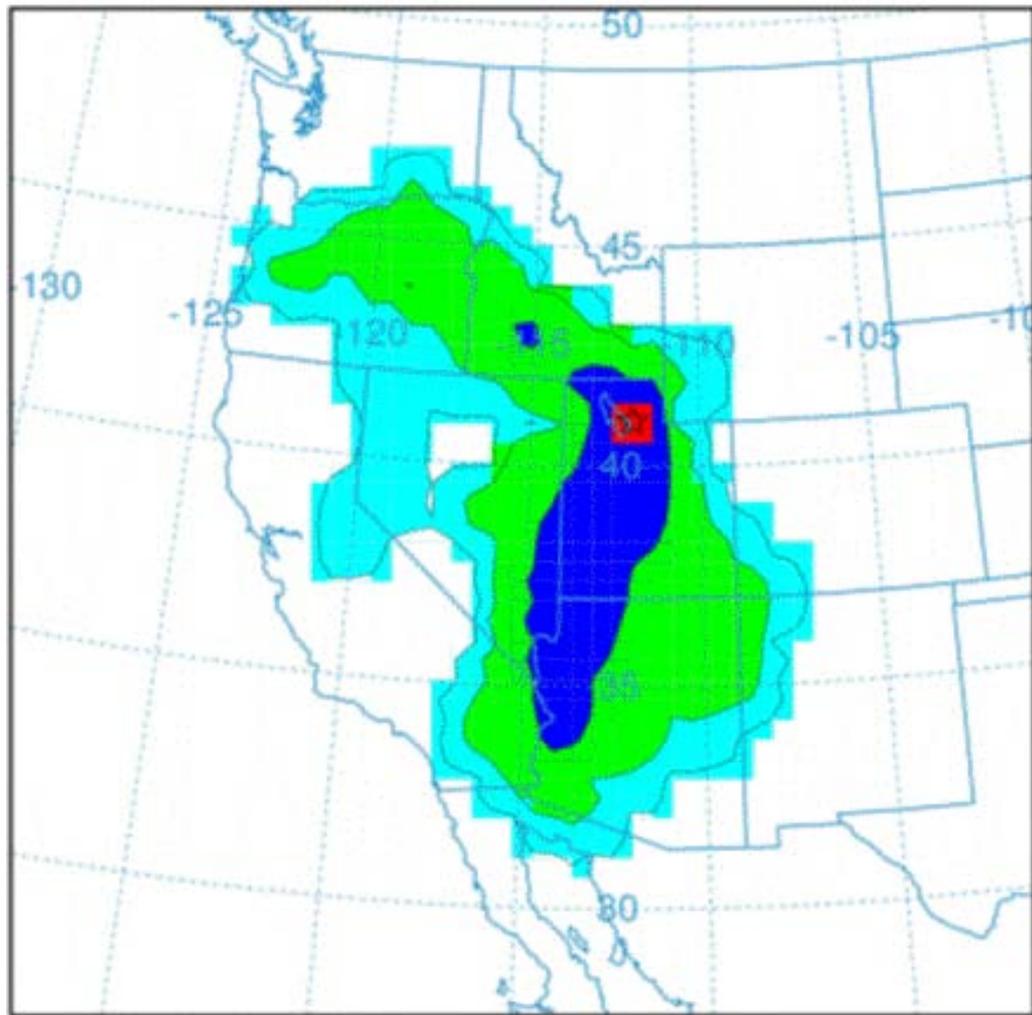
High Ozone Days in Salt Lake

Hysplit and NO_x Statistics for the 39 highest ozone days (O₃>65 ppb)

- 64% passed over southern California
- 74% passed over Las Vegas
- 74% passed over Southern California or Las Vegas
- 64% passed over both
- 17% passing over LA had high NO_x in LA 2 days prior
- 35% passing over Barstow had high NO_x in Barstow 2 days prior
- 48% passing over Las Vegas had high NO_x in Vegas 1 day prior

SLC – 24 Hr. Backward Trajectory Analysis

(Where the air mass came from)



METEOROLOGICAL DATA

Hysplit4 24 Hr Trajectory Analysis

Trajectory every 6 hrs in July

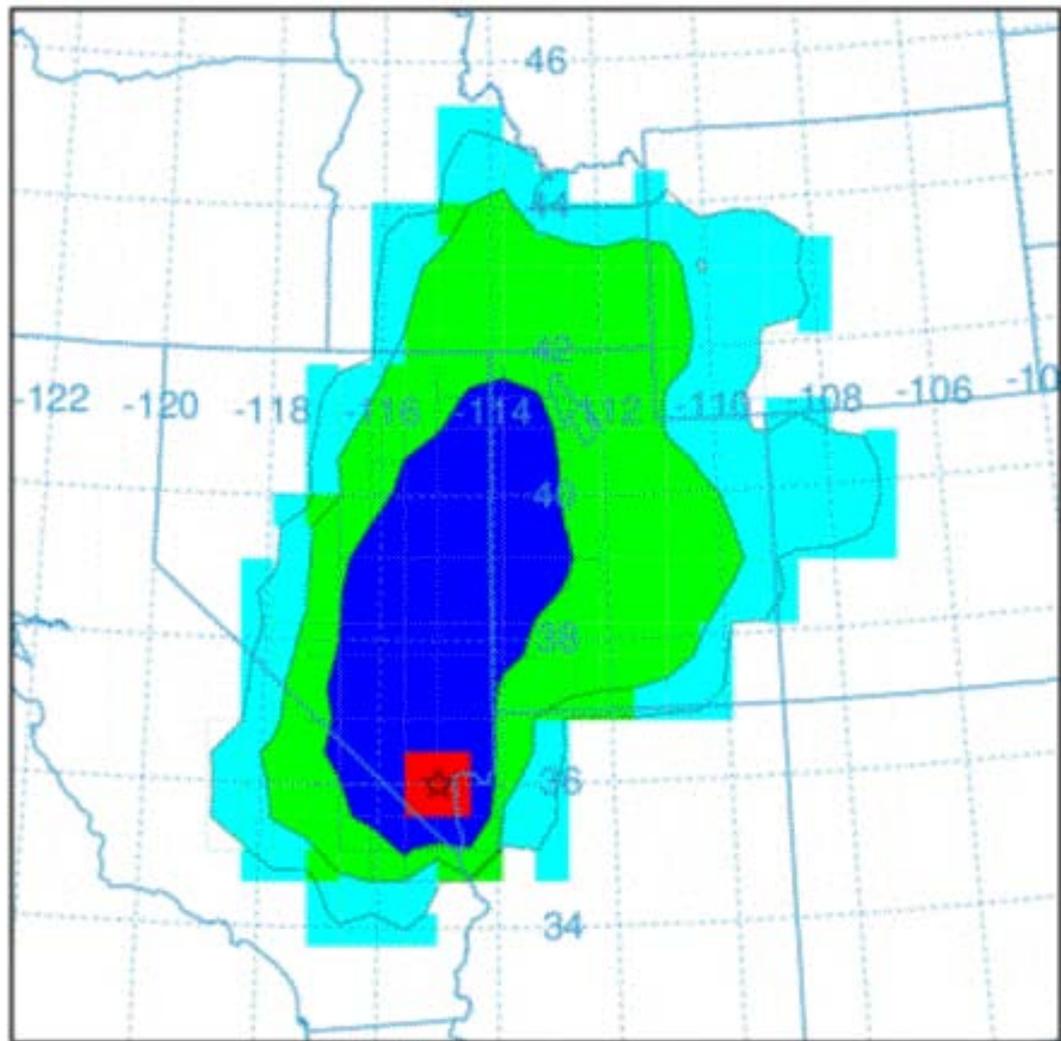
All trajectories began in colored areas and ended in Salt Lake

Dark Blue areas had highest probability of a trajectory passing through it

Light Blue areas had lowest probability of a trajectory passing through it

Vegas – 24 Hr. Forward Trajectory Analysis

(Where the air mass was projected to go)



METEOROLOGICAL DATA

Hysplit4 24 Hr Trajectory Analysis

Trajectory every 6 hrs in July

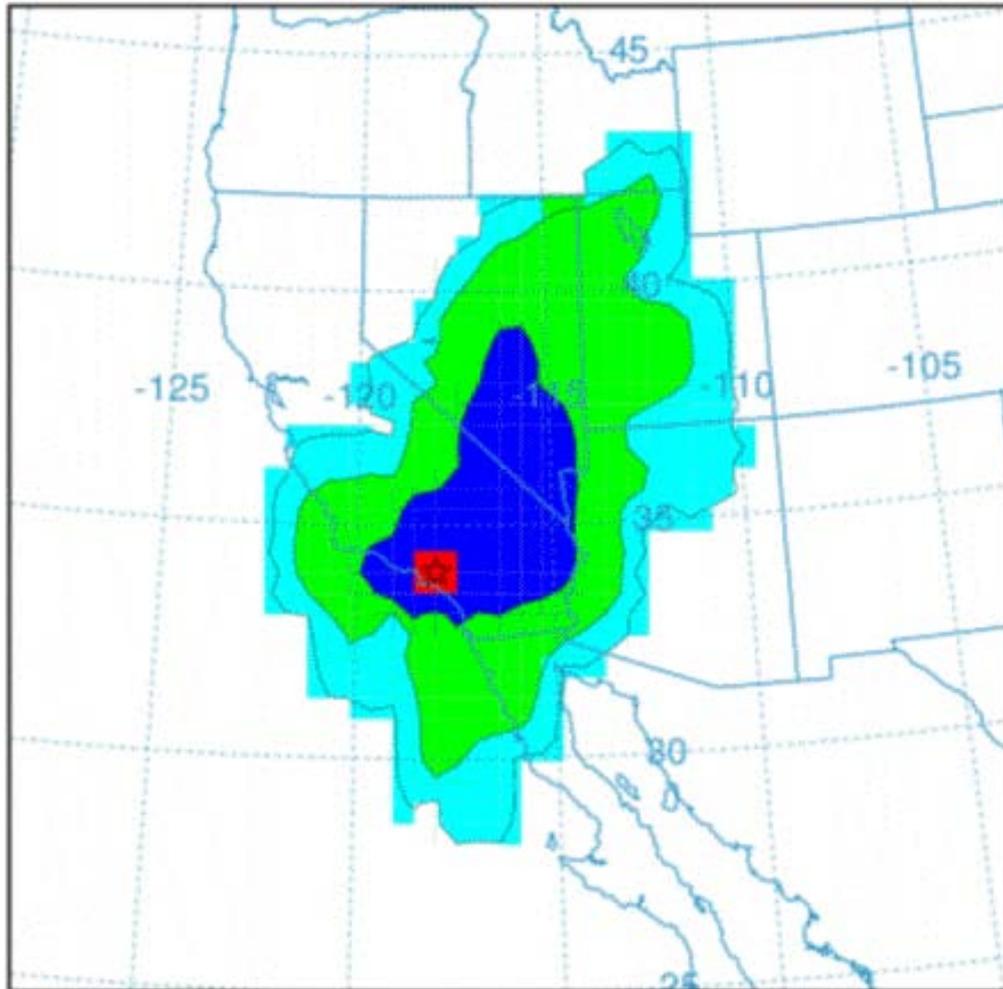
All trajectories ended in colored areas

Dark Blue areas had highest probability of a trajectory passing through it

Light Blue areas had lowest probability of a trajectory passing through it

LA – 24 Hr. Forward Trajectory Analysis

(Where the air mass was projected to go)



METEOROLOGICAL DATA

Hysplit4 24 Hr Trajectory Analysis

Trajectory every 6 hrs in July

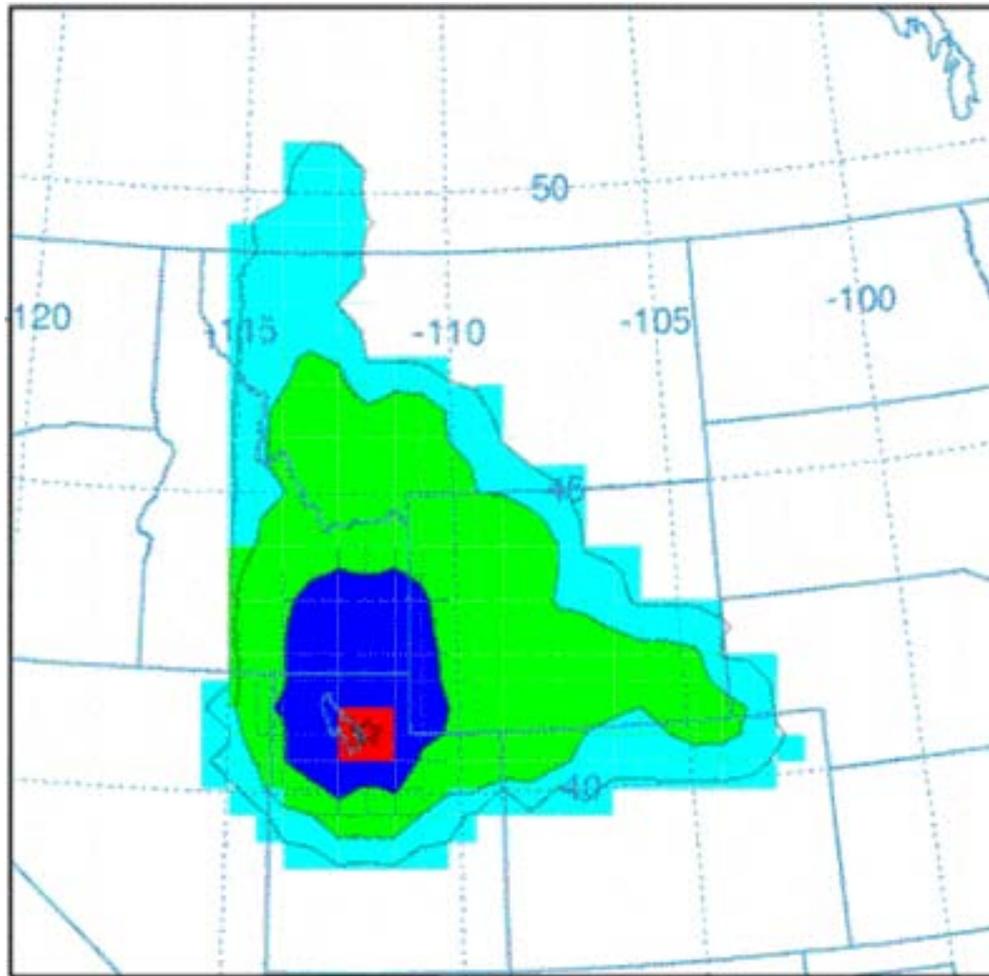
All trajectories ended in colored areas

Dark Blue areas had highest probability of a trajectory passing through it

Light Blue areas had lowest probability of a trajectory passing through it

SLC – 24 Hr. Forward Trajectory Analysis

(Where the air mass was projected to go)



METEOROLOGICAL DATA

Hysplit4 24 Hr Trajectory Analysis

Trajectory every 6 hrs in July

All trajectories ended in colored areas

Dark Blue areas had highest probability of a trajectory passing through it

Light Blue areas had lowest probability of a trajectory passing through it



WRAP Technical Project Status Report – July 10, 2012



		Activities	Deliverables	Approach/Funds
2)	West-wide Jumpstart Air Quality Modeling Study (WestJumpAOMS)	<ul style="list-style-type: none"> High resolution model domain in West 2 types Detailed Source Apportionment Upgraded Meteorological Modeling 2008 NEI Emissions + WRAP projects 2008 Base Case Model Performance Evaluation 	<ul style="list-style-type: none"> Updated Western modeling and source apportionment State-of-the-science modeling platform 	<p>State-EPA-FLM-Local Air Agency direction, coordinated with ORD/OAQPS</p> <p>Funded by State of NM (\$191k), BP (\$30k), and BLM national air program (\$500k)</p>
2)	WRAP Phase III Oil & Gas Emission Inventory	<ul style="list-style-type: none"> Western Energy Alliance and WRAP collaborative project State and EPA O&G permit data Then detailed surveys of O&G operators to determine 100% of their source activity in each Basin 	<ul style="list-style-type: none"> Complete and comparable inventories for 2006 & 2012 Model-ready files <ul style="list-style-type: none"> Used in new OAQPS national modeling platform Applied in project 2 	<p>Transparent, well-documented protocol, results for each Basin reviewed by WRAP O&G workgroup (100+ members, states, feds, industry, enviros)</p> <p>20% FTE WRAP staff time from EPA grant \$100k (State of WY to WRAP)</p> <p>\$1M+ by Western Energy Alliance for contractor work</p> <p>\$50k to WEA from State of ND</p>
2)	Assessment of Smoke's Contribution to Ozone (DEASCO3)	<ul style="list-style-type: none"> Analysis of complex relationship between fires and elevated Ozone Describe how fires contribute to ambient Ozone concentrations National emission inventory development for wildland and agricultural fires in 2002 and 2008 Photochemical grid modeling with fire emissions source apportionment 	<ul style="list-style-type: none"> Develop online tool for FLMs to access results Collaborative review and analysis by NPS and USFS air program staff Documentation and summary reports of methods and results Evaluation of contributions to Ozone NAAQS violations and exceptional events 	<p>FLM collaboration, endorsed by OAQPS and states</p> <p>Leverages project 2 - modeling platform and data</p> <p>Funded by FLM FireScience program (\$370k)</p>

	Activities	Deliverables	Approach/Funds
<p>6) Federal Leadership Forum / 3-State Air Quality Study</p>	<ul style="list-style-type: none"> • NPS, USFS, BLM, EPA-R8 and state air agencies (CO, UT, and WY) working together to: <ul style="list-style-type: none"> ○ Plan for and manage Ozone impacts of energy development ○ Build state and federal agencies' capacity ○ Run additional rural monitors 	<ul style="list-style-type: none"> • CIRA/CSU to construct Data Warehouse for public agencies and their contractors to use (\$250k/year) • Develop and apply protocols • New "Acceleration effort" adds emissions and analysis work to project, cost not fully scoped 	<p>Project direction and funding from member agencies' Steering Committee</p> <p>WRAP staff working 40% FTE time (~\$60k/year) to coordinate technical work and facilitate Steering Committee</p> <p>Stores and applies projects 2 and 4 - modeling platforms and data</p>
<p>Western Biogenic Emissions Inventory Improvement</p> <p><u>Already Completed</u></p>	<ul style="list-style-type: none"> • Develop consistent Western biogenic emissions inventory • Compare models (NCAR to EPA) • In NCAR model: <ul style="list-style-type: none"> ○ Apply current/better land use and land cover information ○ Update algorithms and factors 	<ul style="list-style-type: none"> • New NCAR model version • Updated western emissions, including insect kill trees and current land use • 2008 files applied in project 2, above – also for state, federal, and local agencies 	<p>State-EPA-FLM-Local Air Agency direction, coordinated with ORD/OAQPS</p> <p>Funded by WESTAR Council (\$128k)</p>



WESTAR Fall Technical Conference: Western Ozone Transport

Objective: Increase understanding of the science of ozone background and transport in the West and how the science can help inform state regulatory agency decision making for nonattainment area planning, and interstate transport assessment requirements of the Clean Air Act.

Audience: This conference is intended for state air quality agency science and regulatory staff and scientists working in the field of western ozone transport.

Background: The Clean Air Scientific Advisory Committee (CASAC), in its most recent review of health effects studies of ozone recommended that the National Ambient Air Quality Standard (NAAQS) standard be set at a level in the range of 60 to 70 ppb. In early 2010, EPA proposed reducing the NAAQS for ozone from 75 ppb to a value in this range, however this change was not made. EPA has indicated it will complete another review of the health and welfare effects data for the ozone NAAQS next year. EPA also previously proposed a novel secondary standard for ozone.

In the past, state implementation planning efforts to reduce ozone in the West have focused primarily on urbanized area control strategies. An ozone NAAQS in the range of 60 to 70 ppb would potentially bring many new and largely rural areas without significant air pollution sources into nonattainment and require states to develop plans to bring the areas into attainment with the standard. In addition, Clean Air Act section 110(a)(2)(D) requires states to make determinations about interstate transport of ozone and its impact on other states when the NAAQS is revised.

These regulatory challenges are complicated by uncertainties about the relative contributions of ozone and ozone precursors from natural and anthropogenic sources at the local, regional and international scales, as well as in our understanding of the direct contribution of ozone associated with stratospheric intrusions.



This conference will examine current scientific efforts to understand background and transported ozone in the western United States and the potential for using that knowledge to inform regulatory actions by state air quality agencies.

Specific questions to be addressed at the conference include:

1. What are the source areas of ozone and what is the relevance of each to surface ozone in the western U.S.?
 - a. Local/regional,
 - b. Western regional transport,
 - c. Long-range transport from Asia,
 - d. Stratospheric intrusions and,
 - e. Wildfires.
2. Where are the monitored observations being made; what are the concentrations and trends, and what are emerging methods that can be applied to investigate source areas?
3. What other sources of observational data (i.e. lidar, satellite, etc.) are potentially available for use by state air quality agencies? What is being measured and what observations are useful? Are there other things that need to be measured? What are the limitations of these methods?
4. What global and regional models are being applied to characterize western ozone and how can these tools help us? What are the strengths and weaknesses of these models?
5. What are the Clean Air Act requirements with respect to background and transported ozone and how can the emerging science help states meet the regulatory requirements?

Green House Gas – Prevention of Significant Deterioration

- Issuance of Federal GHG – Only PSD Permits in Region 8
- Review of State PSD Permits in Region 8 Involving GHGs

Building Bridges between Environmental Regulators (State and Federal) and Utility Regulators

Presented by
Ken Colburn and John Shenot

July 26, 2012

The Regulatory Assistance Project

50 State Street, Suite 3
Montpelier, VT 05602

Phone: 802-223-8199
web: www.raponline.org



Introducing RAP

- RAP is a non-advocacy, non-profit organization providing technical and educational assistance to government officials on energy and environmental issues – *usually for free.*
- RAP Principals all have extensive utility or environmental regulatory experience.
- Focused programs in US, EU, China, and India.
- RAP is celebrating its 20th year.

Introducing Ken and John



- Ken Colburn is a RAP senior associate; previously he consulted with states, directed NESCAUM, and led NH's air program.



- John Shenot joined RAP in 2011 after serving as policy advisor to WI's PSC and as an air quality engineer for WI's DNR.

How Does RAP Assist Regulators?

- Research and Publications
- Training/Workshops/Webinars
- Tailored Advice and Assistance
- Regional/National Collaborative Efforts
- “Big Ideas” and Best Practices



Topics for Today

- Energy Efficiency (EE) and Renewable Energy (RE) as Air Quality Strategies
- Transmission Expansion to Support RE
- The Water/Energy Nexus
- Building Bridges between Environmental Regulators and Utility Regulators

EE/RE as Air Quality Strategies



Regional Haze



Glacier NP



Yellowstone NP



Badlands NP



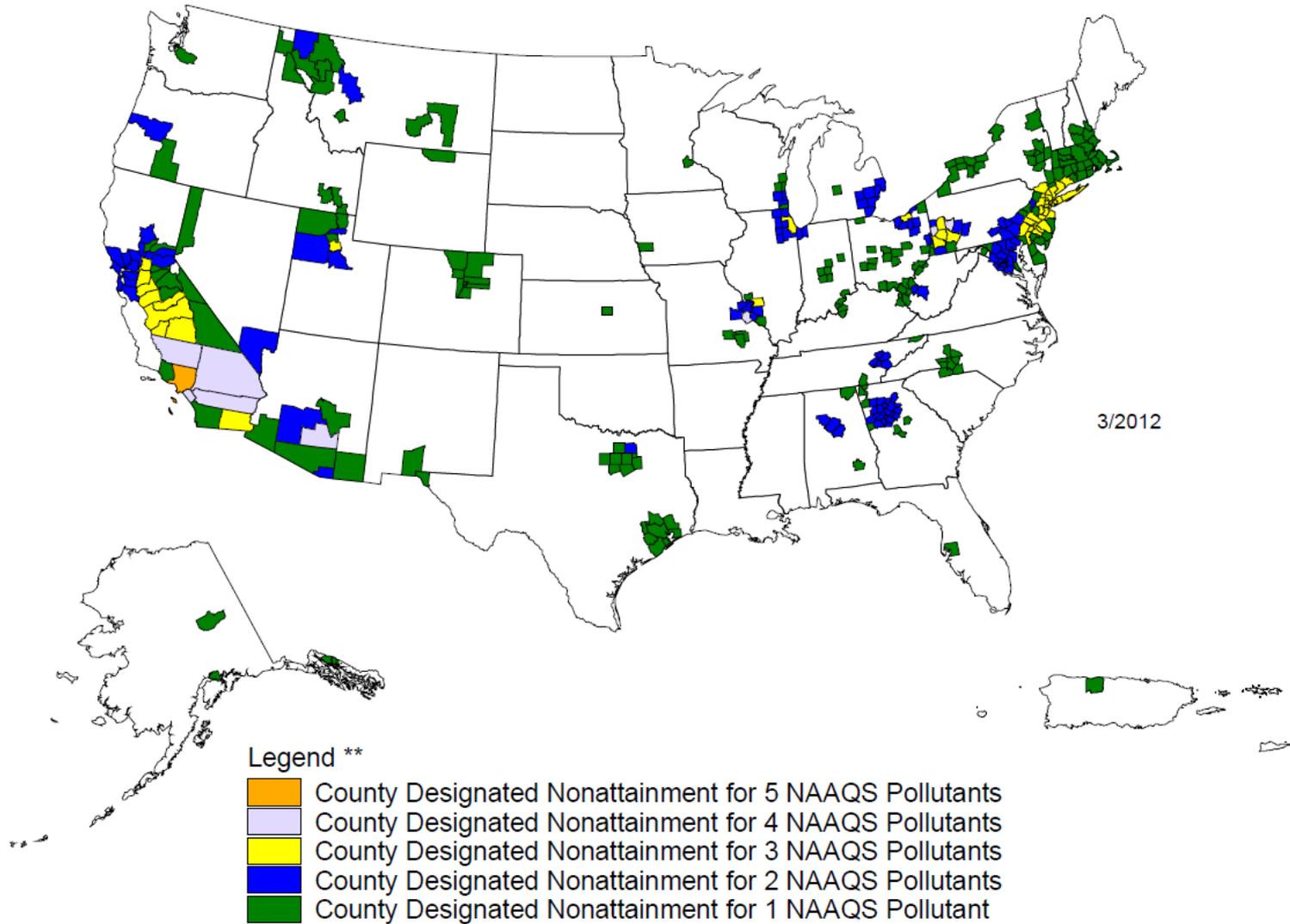
Bryce Canyon NP



Rocky Mountain NP

Counties Designated "Nonattainment"

for Clean Air Act's National Ambient Air Quality Standards (NAAQS) *

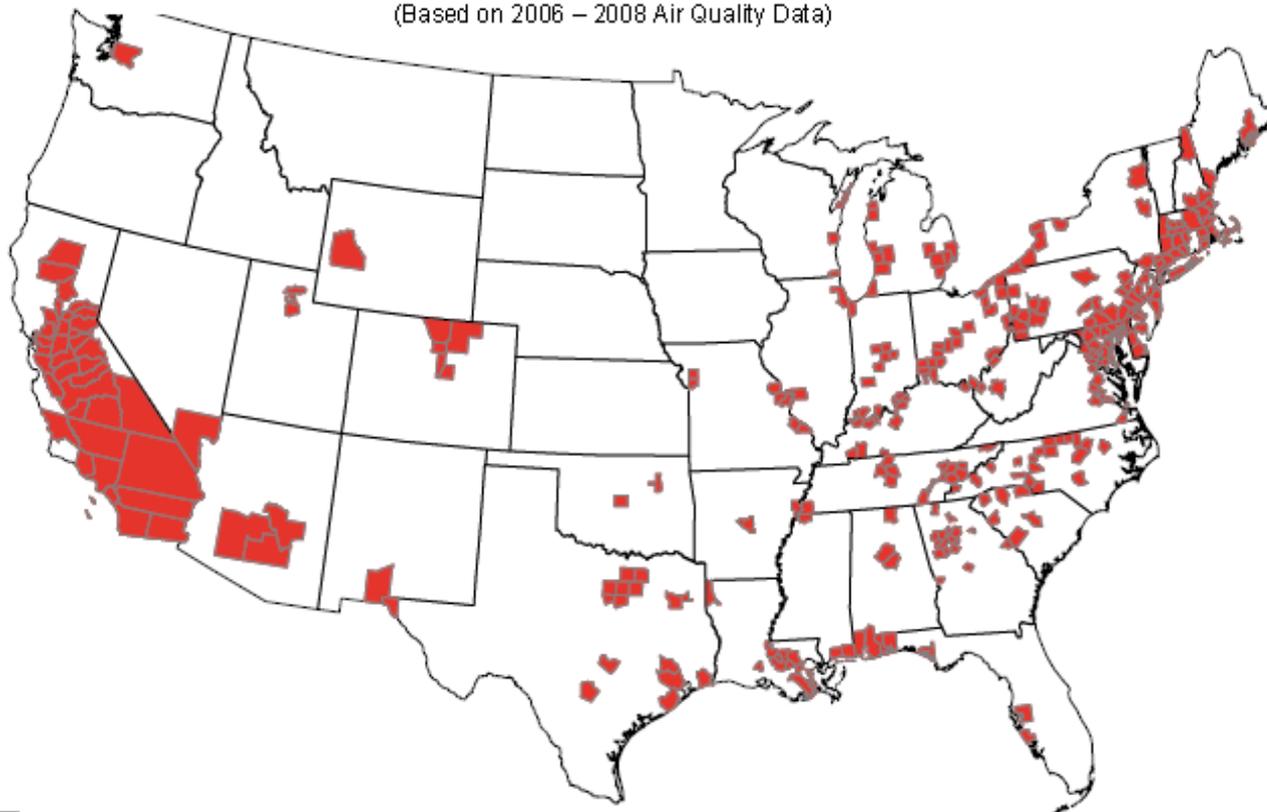


2008 Ozone NAAQS

Counties With Monitors Violating the March 2008 Ground-Level Ozone Standards

0.075 parts per million

(Based on 2006 – 2008 Air Quality Data)



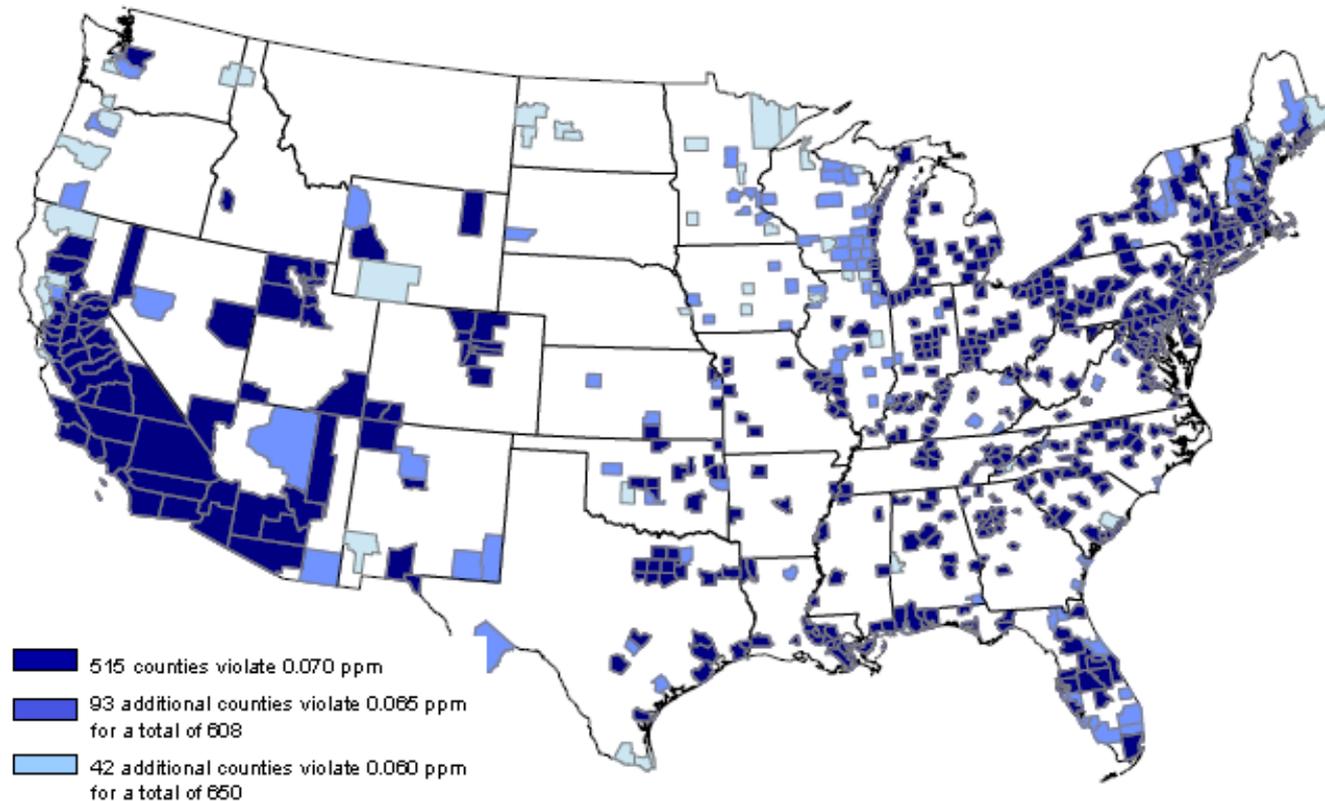
322 of 675¹ monitored counties violate the standard

What if the Ozone NAAQS is Tightened?

Counties With Monitors Violating Primary 8-hour Ground-level Ozone Standards 0.060 - 0.070 parts per million

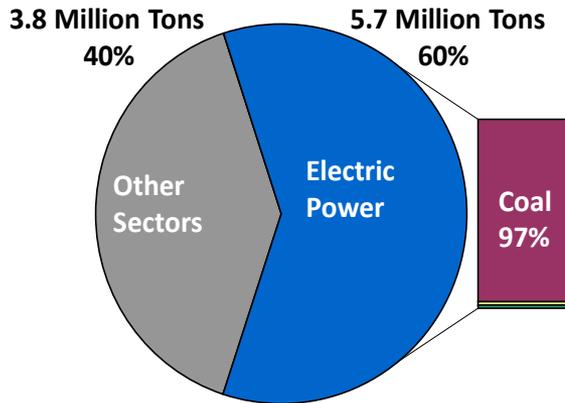
(Based on 2006 – 2008 Air Quality Data)

EP A will not designate areas as nonattainment on these data, but likely on 2008 – 2010 data which are expected to show improved air quality.

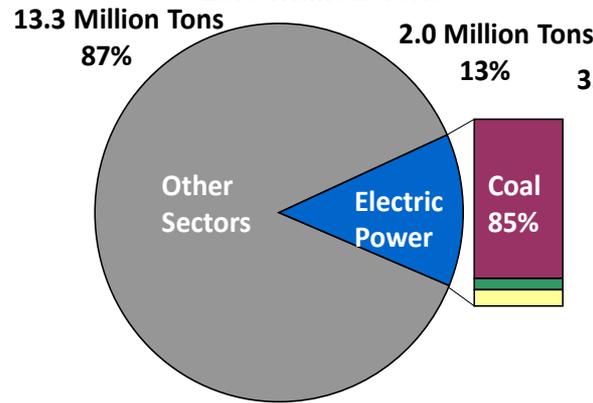


Power Sector: A Major Share of US Air Emissions

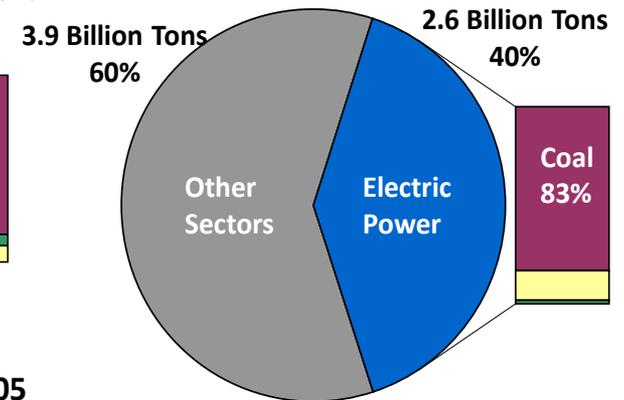
Sulfur Dioxide (SO₂), 2009
9.5 Million Tons



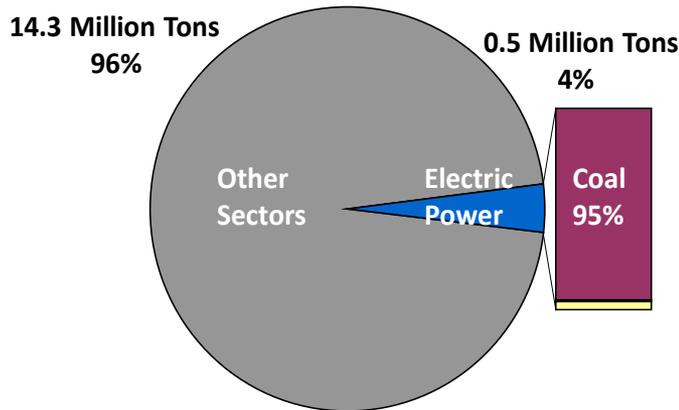
Nitrogen Oxides (NO_x), 2009
15.3 Million Tons



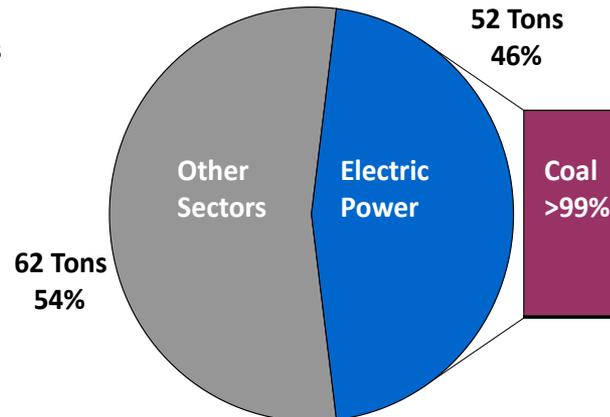
Carbon Dioxide (CO₂), 2008
6.5 Billion Tons



Particulate Matter (PM₁₀), 2005
14.8 Million Tons



Mercury (Hg), 2005
114 Tons



Coal-fired power plants: vast majority of power sector air emissions

Sources: SO₂ and NO_x - NEI Trends Data and NEI 2005 Version 2 (2009) and CAMD Data & Maps (2010); PM₁₀ - NEI Trends Data (2009); Hg - NEI 2005 Version 2 (2009); CO₂ - Inventory of U.S. GHG Emissions and Sinks: 1990-2008 (2010) and 1990-2007; "Other" sources include transportation, other mobile sources, and industrial sources

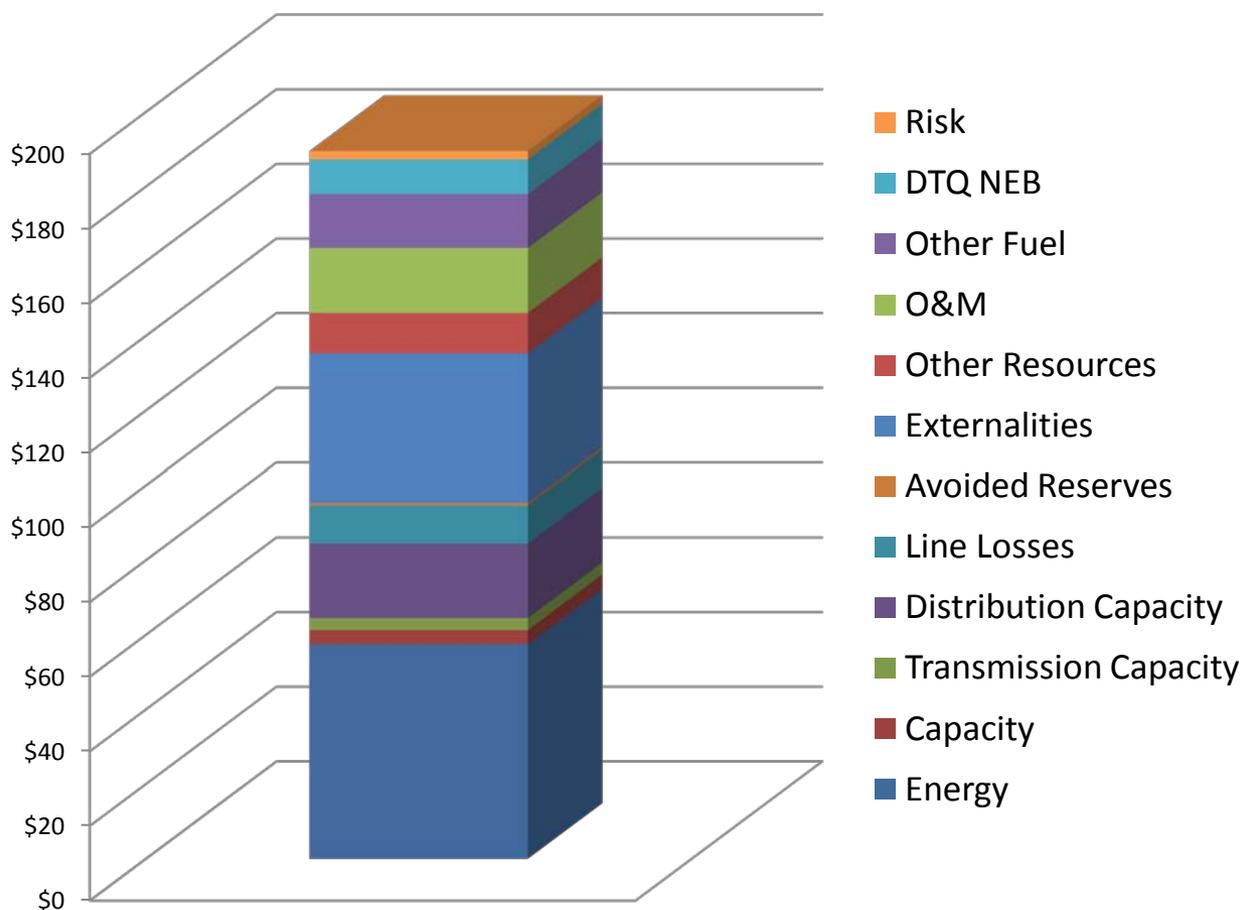


Energy Efficiency vs. Pollution Controls

- Both contribute to environmental quality and improved public health, but...
- **Energy efficiency (EE) is an *investment***
 - Provides co-benefits like reduced water consumption, air emissions, and land discharges
 - Produces economic benefits of \$2-\$4 (or more) for each \$1 invested
 - Improves reliability
 - Lowers overall system-wide costs of serving electric demand
- **Pollution controls are an *expense***
 - Increases system-wide costs of serving electric demand
 - Imposes typical energy penalty of 1%-2%
 - Can increase discharges to water and land

Multiple Benefits of EE

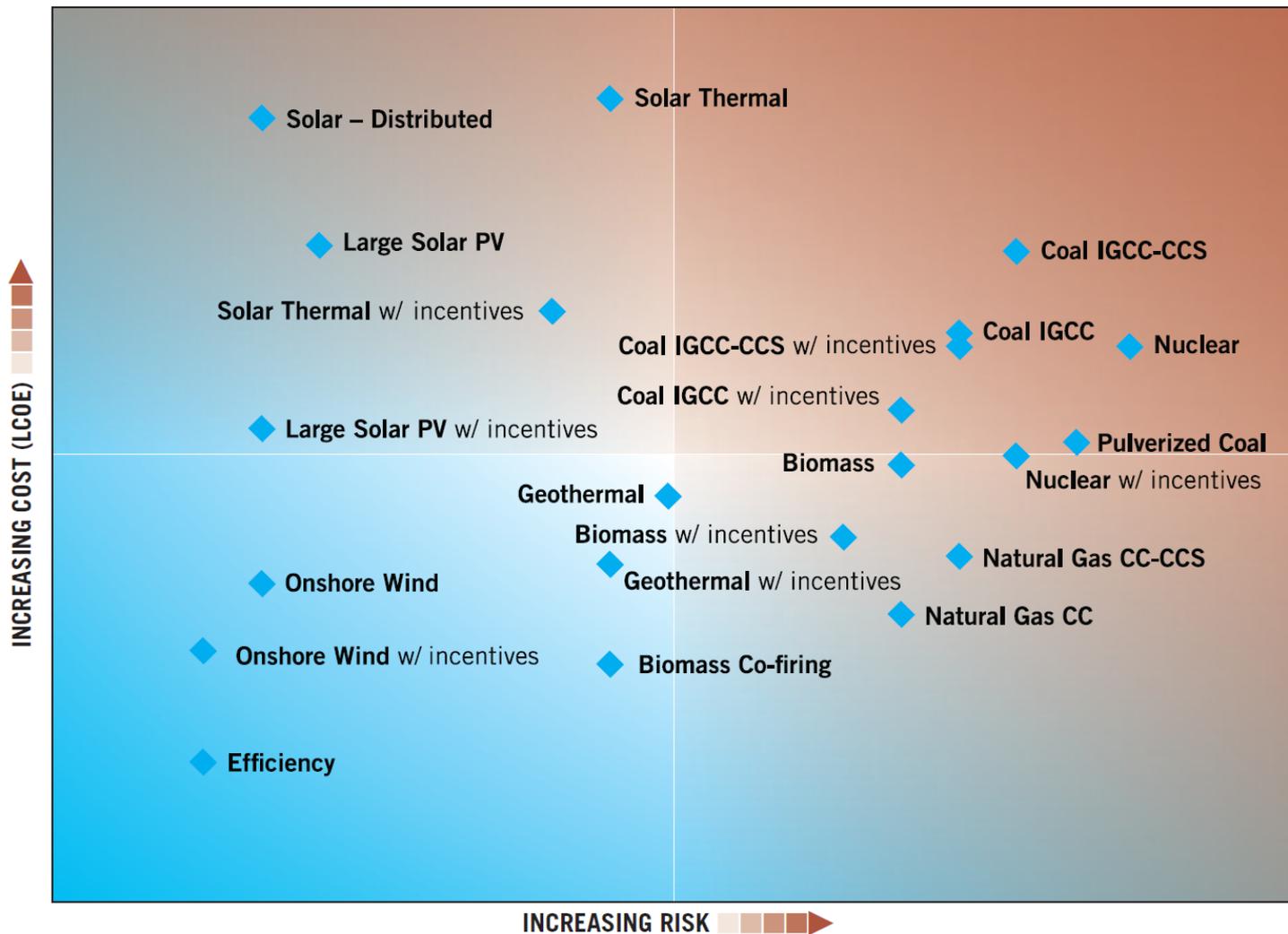
Vermont Energy Efficiency Savings Value
Updated Externality and NEB Values



Most analyses of EE are incomplete:

- Some look only at avoided energy costs.
- Many include production capacity costs, but not transmission or distribution capacity or line losses.
- Few include other resource savings (water, gas, oil).
- Very few try to quantify non-energy benefits.

Relative Cost and Risk of Generation Options



Recent RAP Publications (examples)

- *Preparing for EPA Regulations*
- *Incorporating Environmental Costs in Rates*
- *State Implementation Plans: What Are They and Why Do They Matter?*
- *Clean Energy Standards: State and Federal Policy Options and Implications*



Recent Training/Workshops/Webinars (examples)

- For Northeast states:
 - *EE and Air Quality*
 - *Characterizing RE and Its Benefits*
 - *Engaging With Your PUC*
- For the Virginia DEQ (and PUC and SEO):
 - *Incorporating EE in Air Quality Planning*
 - *Incorporating EE in Air Permits*
- For EPA (OAQPS, Regions 6 & 10, etc.):
 - *Electric Energy Training for Air Officials*
 - *EPA/S-L-T Electricity Generation-Environment Workshop*



RAP Technical Involvement in Regional/National Collaborative Efforts

- State Energy Efficiency Action Network
- Model Rule: Output-Based Emissions Standards for Distributed Generation
- Demand Response Initiatives
 - NEDRI, MADRI, MWDRI, PNDRP
 - National Forum on the National Action Plan
- Regional Greenhouse Gas Initiative



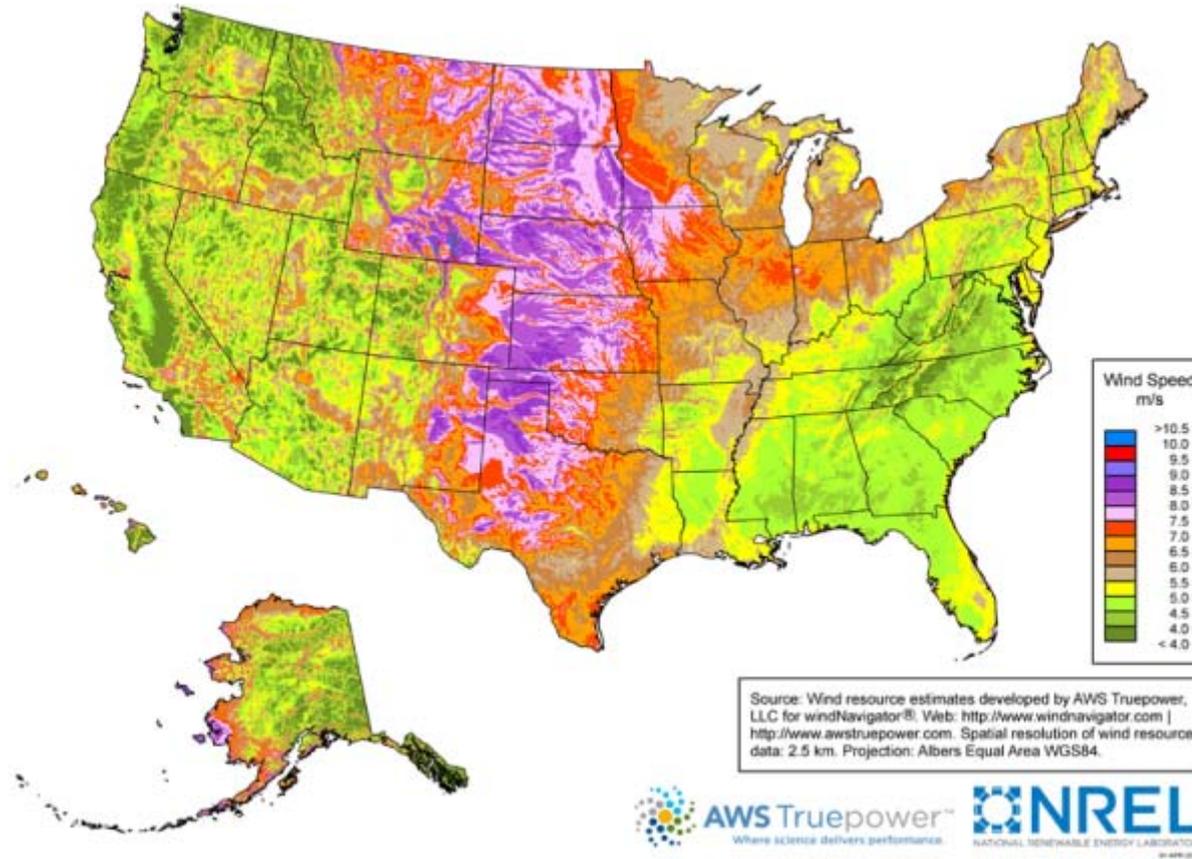
Big Ideas and Best Practices (examples)

- Avoiding non-attainment designations and the endless “do loop” of SIPs
- Multi-pollutant planning
- “Top down tons”
- Clean Energy Standards
- Properly valuing EE
- Risk-aware electricity regulation
- “Decoupling”, “Net Demand”

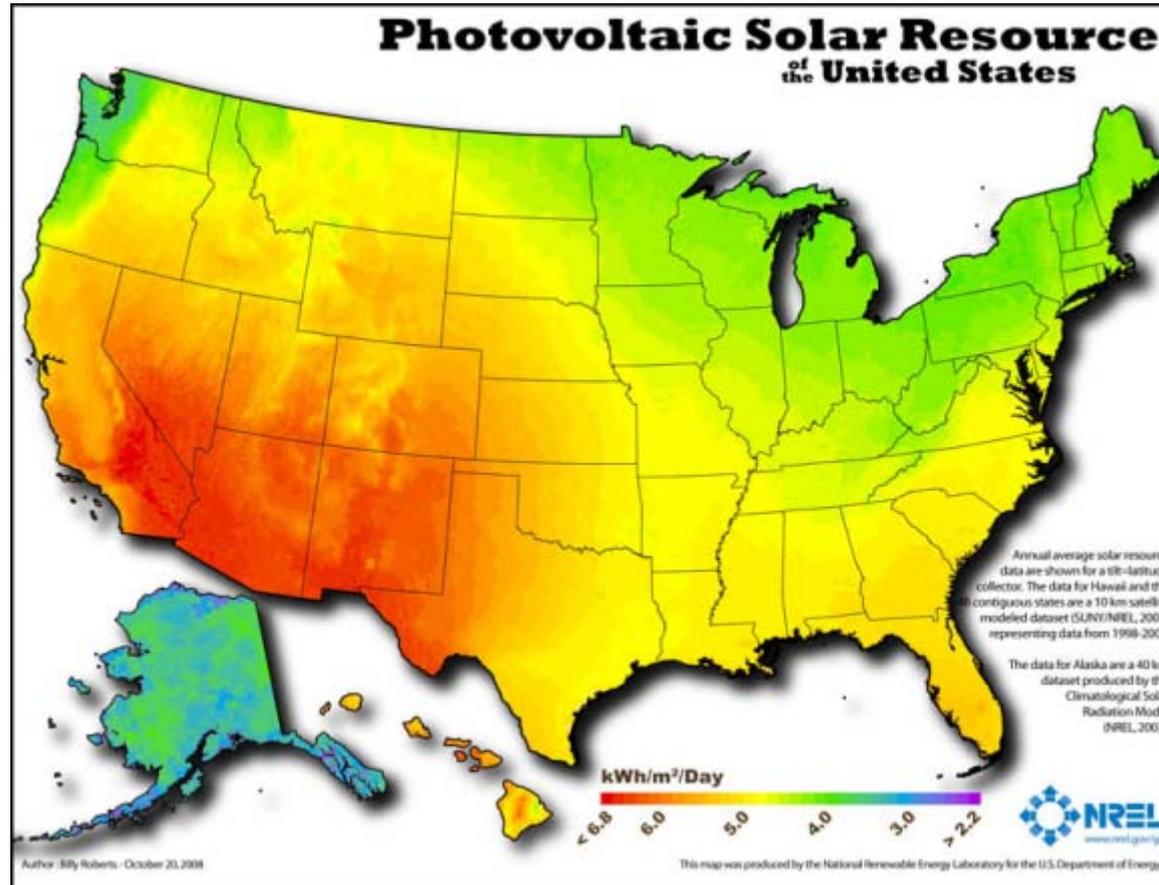
Transmission Expansion to Support RE



Renewable Energy (RE) Potential: Wind



Renewable Energy (RE) Potential: Solar



Power lines where renewable energy isn't

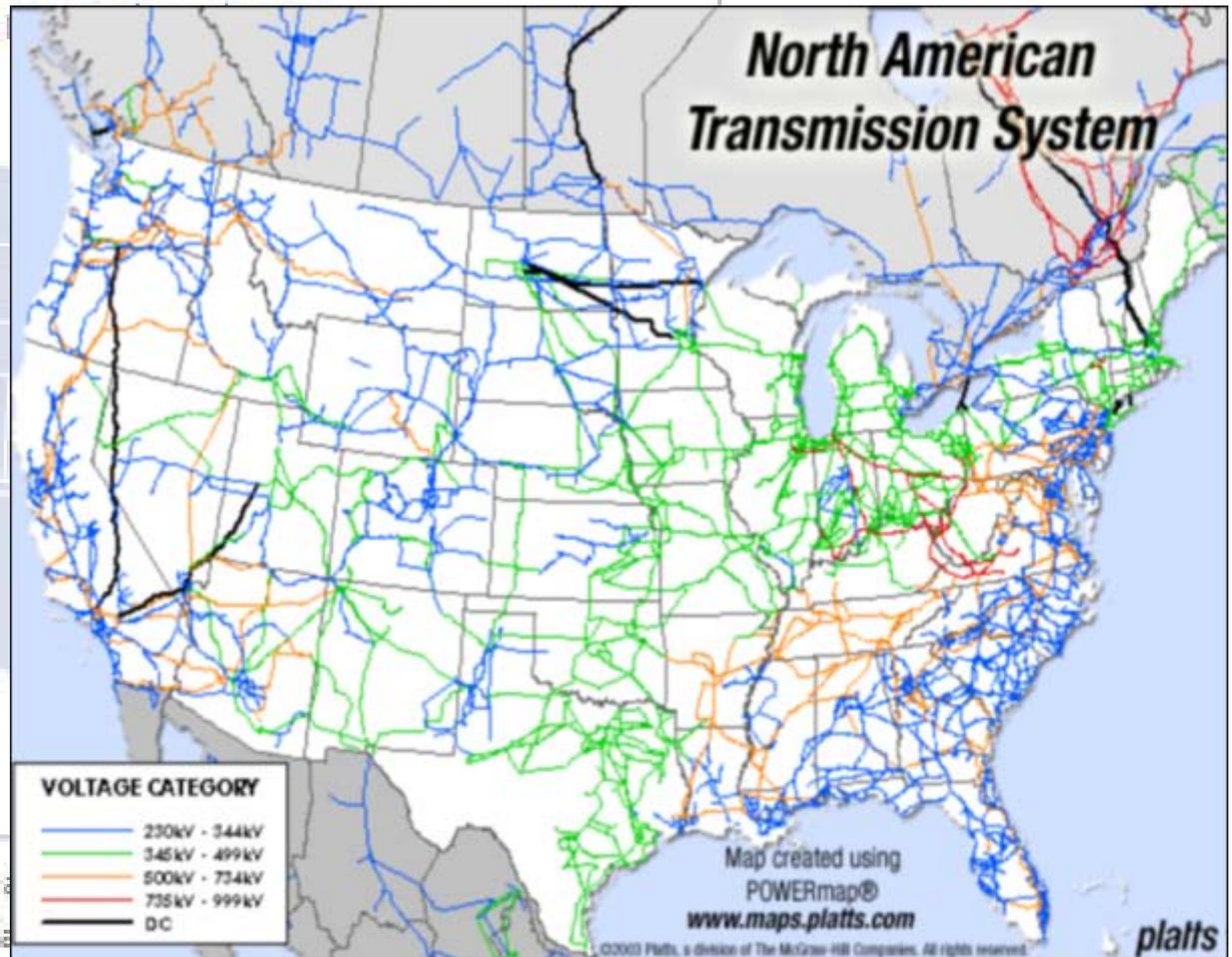
Today's high voltage transmission lines do not connect to the regions where wind power, solar power, and geothermal power are



— High voltage transmission lines*

* Depicted lines are 500 kV–999 kV

Source: Platts POWERmap, www.maps.platts.com



Transmission Studies

- Numerous studies indicate more transmission capacity is needed to move renewable energy from Region 8 states to load centers, e.g.,:
 - WECC 10-Year Regional Transmission Plan
 - MISO Regional Generation Outlet Study
- WECC also published a helpful report on *Environmental Recommendations for Transmission Planning*

Recent RAP Publications (examples)

- *Meeting Renewable Energy Targets in the West at Least Cost: The Integration Challenge*
- *Renewable Resources and Transmission in the West: Interviews on the Western Renewable Energy Zones (WREZ) Initiative*
- *Clean First: Aligning Power Sector Regulation with Environmental and Climate Goals*

RAP Involvement in Regional/National Collaborative Efforts

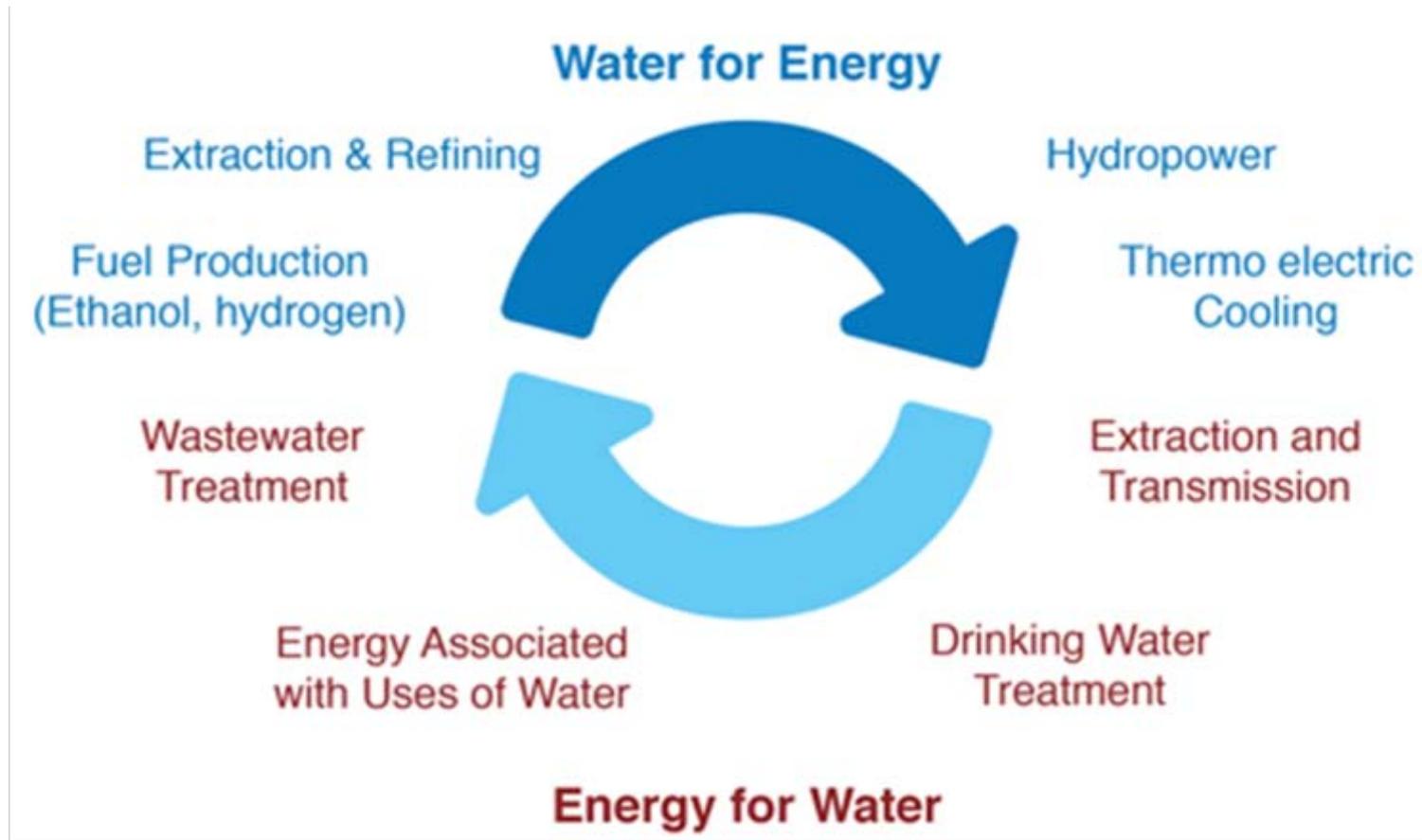
- DOE Electricity Advisory Committee
- Western Governors Association's Western Renewable Energy Zones (WREZ) Initiative
- Western Electric Coordinating Council's (WECC) Transmission Expansion Planning Policy Committee (TEPPC)
- Western Resource Planners Forum

Deloitte.

No water, no energy.
No energy, no water.

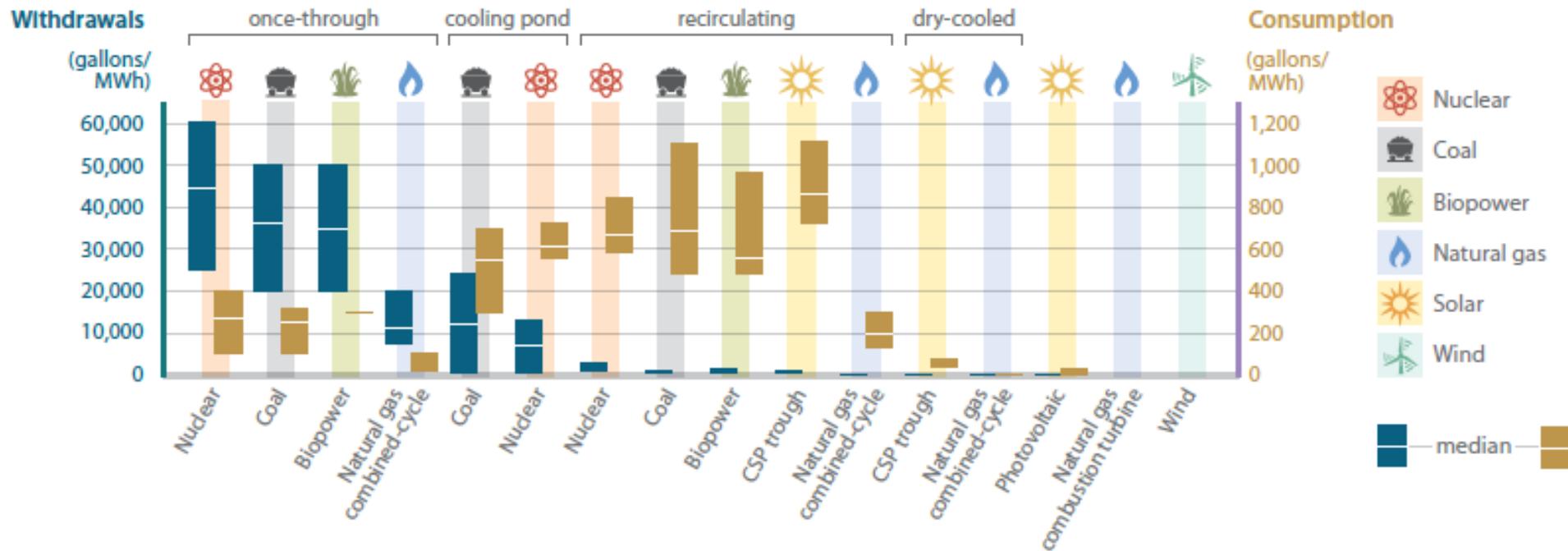


The Water-Energy Nexus



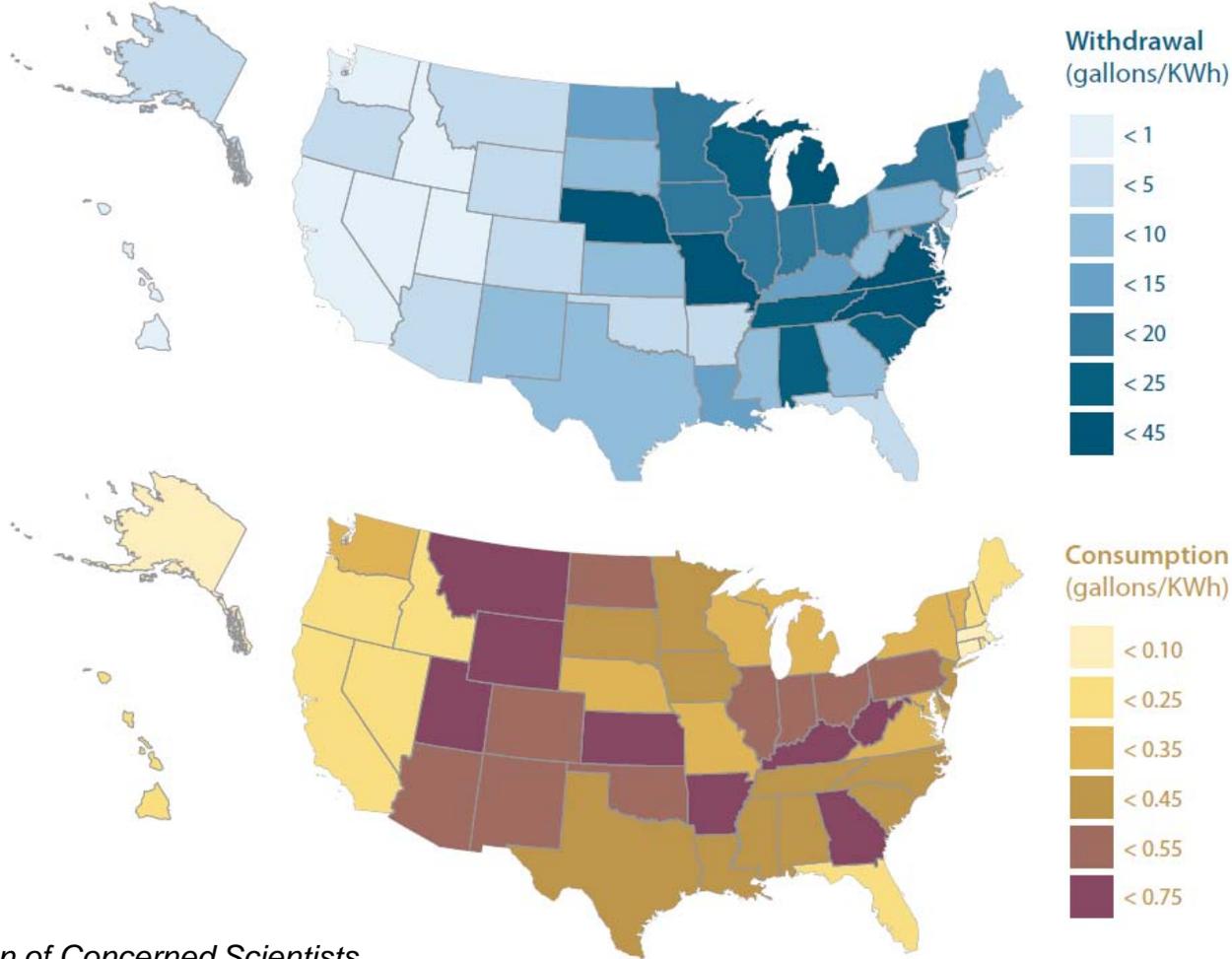
source: www.voxglobal.com

Water Use in Thermoelectric Generation



Source: Union of Concerned Scientists

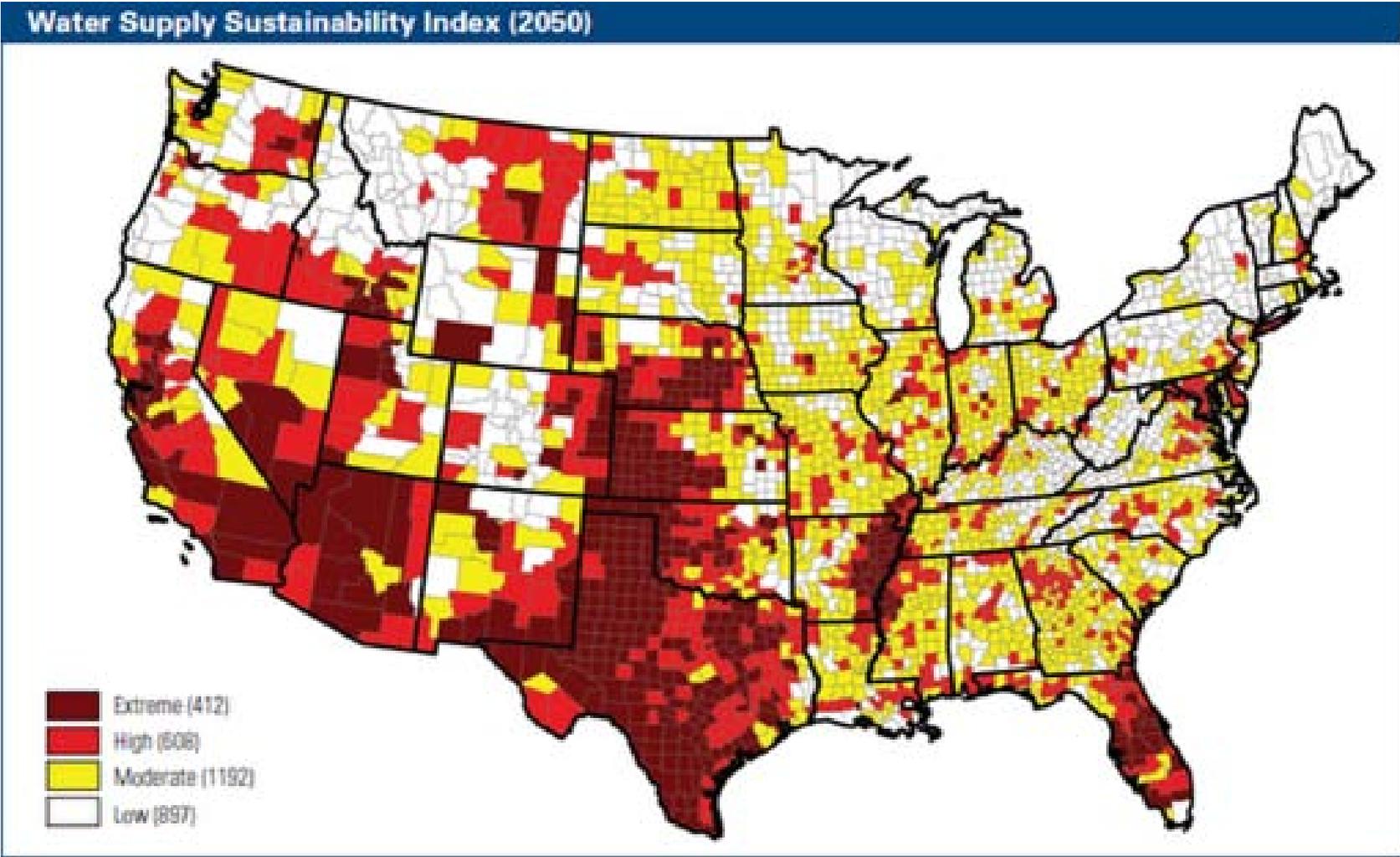
Freshwater Use for Electric Generation



Source: Union of Concerned Scientists



Drought



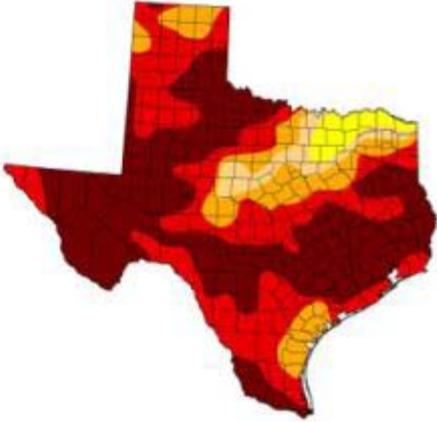
Example: Texas

U.S. Drought Monitor Texas

May 17, 2011
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	97.01	92.40	80.02	47.87
Last Week (05/10/2011 map)	0.00	100.00	97.78	93.89	82.06	47.55
3 Months Ago (02/15/2011 map)	12.52	87.48	58.11	37.35	7.78	0.00
Start of Calendar Year (12/28/2010 map)	7.89	92.11	69.43	37.46	9.59	0.00
Start of Water Year (09/28/2010 map)	75.57	24.43	2.43	0.99	0.00	0.00
One Year Ago (05/11/2010 map)	83.84	16.16	3.44	0.00	0.00	0.00



Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

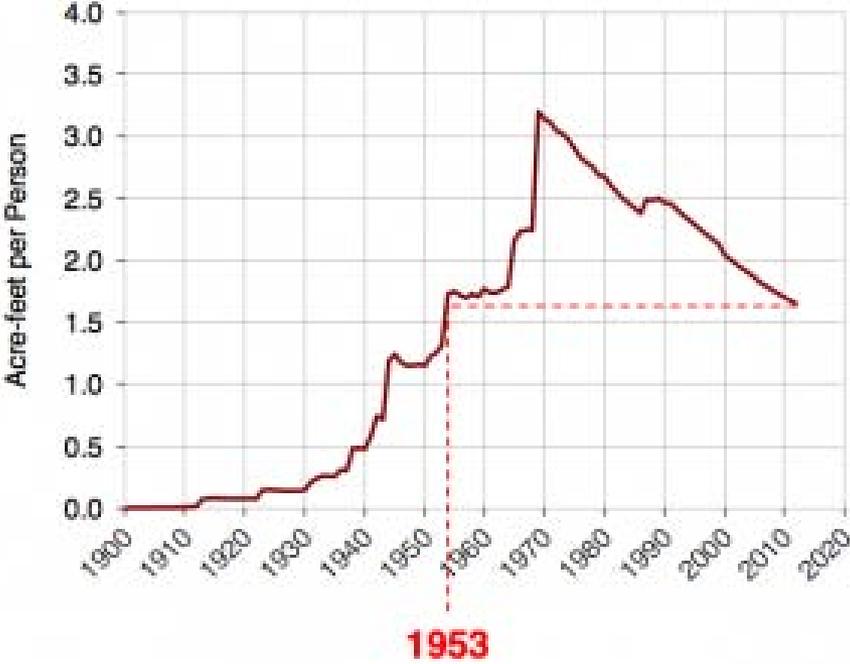
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://drought.unl.edu/dm>



Released Thursday, May 19, 2011
David Miskus, NOAA/NWS/NCEP/CPC

Texas Reservoir Storage Capacity per Capita





Example: Texas (continued)

- The 2011 drought cut off rice farmers from irrigation for the first time in history, pitting them against coal and other industrial plants
- Heavy stress on water systems also led to the curtailment of 12,000 water rights in the state
- At least 24 MW of generation capacity was unavailable due to a lack of water



Why Care About the Water-Energy Nexus?

- 0.5-4 gal/kWh consumption; 9-19% of electric load (to produce, transport & treat)
- Risk, resource allocation (conflicts) issues
- Impacts which future energy scenarios can be pursued (including some RE)
- Water constraints not always included in energy planning processes
- Water prices are low – water as a resource is not always valued
- A major opportunity for synergistic gain

Building Bridges



Promoting Mutual Understanding and Collaboration

- Publications:
 - *Electricity Regulation in the U.S.: A Guide*
 - *State Implementation Plans: What Are They and Why Do They Matter?*
- Webinars:
 - *Engaging With Your PUC*
 - *Introduction to the Electric Power Sector for Air Quality Regulators* (multiple audiences)



Tailored Advice and Assistance

- RAP responds to requests from state regulators, often addressing an immediate need or challenge
- Can be public or confidential
- Short-term/limited scope projects can often be completed at no cost to the state
- For longer-term/more involved projects, we work with states to find resources

Possible Workshops for Region 8 States?

- Similar workshops as for other states:
 - Introduction to the Electric Power Sector for Air Quality Regulators
 - Engaging Your PUC
- Using EPA's new *Roadmap Manual for Incorporating EE/RE Policies and Programs in SIPs/TIPs*
- Water-Energy Nexus

Possible Workshops for Region 8 States? (continued)

- Considering water availability in utility “integrated resource plans” (IRP)
- Accounting for environmental costs and externalities in EE cost-effectiveness tests
- Incorporating environmental policy in transmission planning under FERC Order 1000
- Focused small group session(s) on solving specific problem(s)

About RAP

The Regulatory Assistance Project (RAP) is a global, non-profit team of experts that focuses on the long-term economic and environmental sustainability of the power and natural gas sectors. RAP has deep expertise in regulatory and market policies that:

- Promote economic efficiency
- Protect the environment
- Ensure system reliability
- Allocate system benefits fairly among all consumers

Learn more about RAP at www.raponline.org

Ken Colburn: kcolburn@raponline.org

John Shenot: jshenot@raponline.org



Global
US
China
EU

The Regulatory Assistance Project

50 State Street, Suite 3
Montpelier, Vermont 05602

phone: 802-223-8199
fax: 802-223-8172

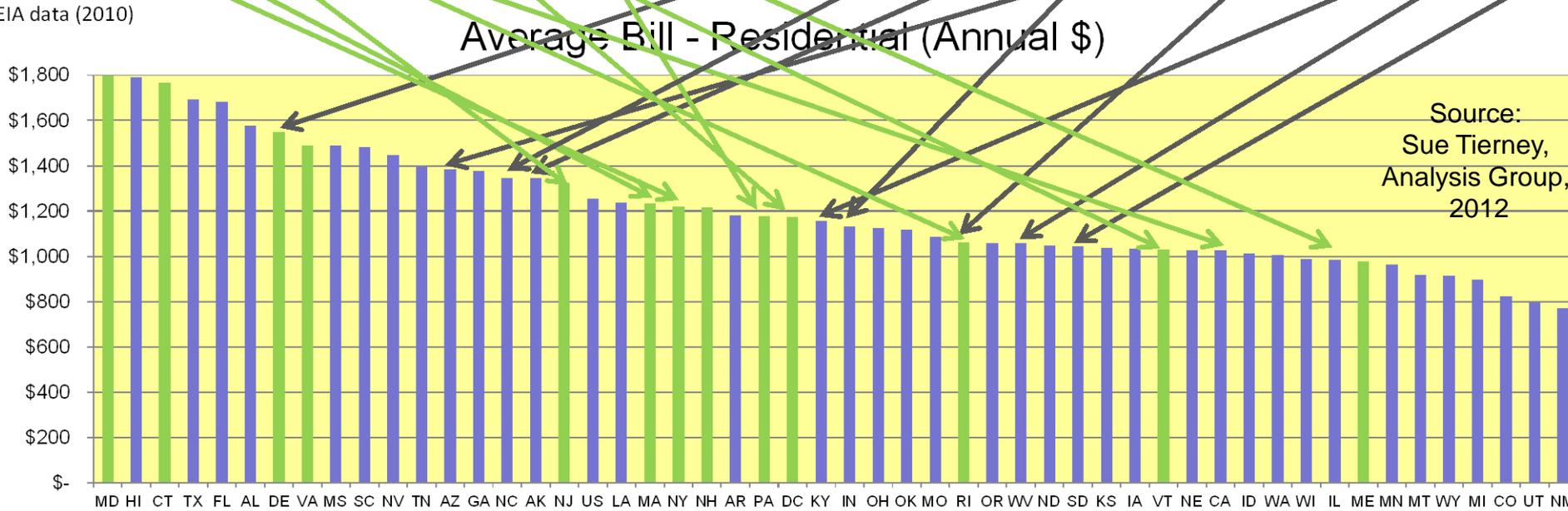
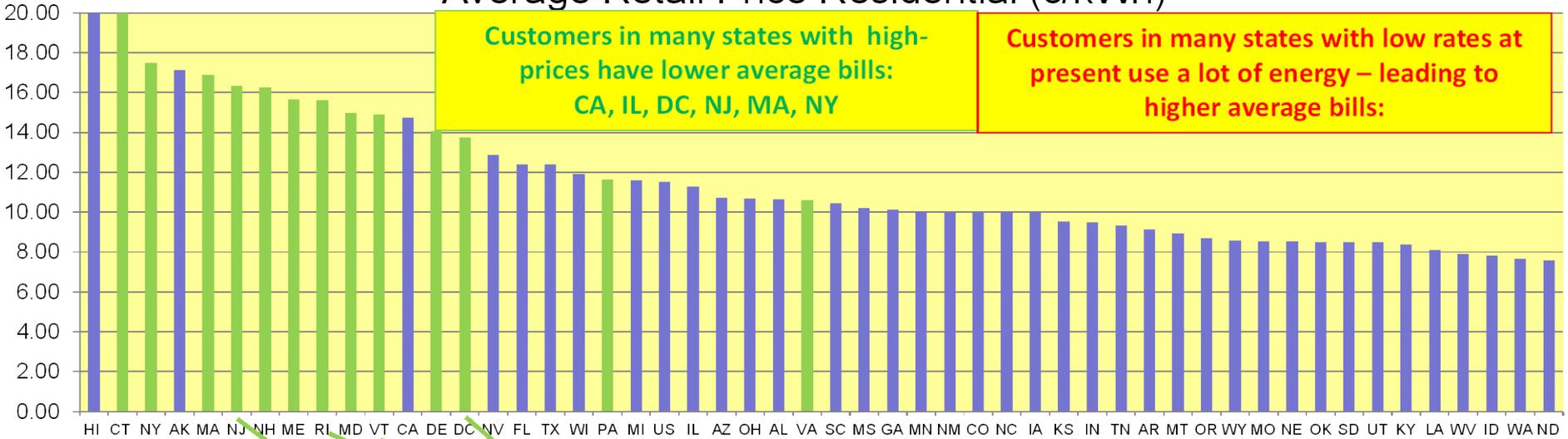
www.raponline.org

Average Unit Price of Electricity Versus Average Electricity Bill

Average Retail Price Residential (c/kWh)

Customers in many states with high-prices have lower average bills:
CA, IL, DC, NJ, MA, NY

Customers in many states with low rates at present use a lot of energy – leading to higher average bills:



Source:
Sue Tierney,
Analysis Group,
2012

Michigan Agriculture
Environmental Assurance Program



Michigan Agriculture
Protecting the Environment

USEPA Region VIII State Director's Meeting July 26, 2012

Jim Johnson, ESD Division Director

Jan Wilford, MAEAP Manager

Michigan Department of Agriculture & Rural Development

MAEAP.org

Michigan Agriculture
Environmental Assurance Program



Michigan Agriculture
Protecting the Environment



Partnership

- Farmers
 - Industry Groups
 - Conservation
 - Agency
 - University
-
- Implemented by MDARD with consultation from the MAEAP Advisory Council
 - All farm types – all sizes

Why MAEAP?



MAEAP verified farms keep their land, water and air as healthy as the food they produce.

They represent the highest standards of environmental stewardship and the pinnacle of responsible agriculture.

MAEAP farms are required to go through a rigorous review by the Michigan Department of Agriculture and Rural Development every three years to ensure they are in compliance with MAEAP Standards.



Our Mission

- To develop and implement a proactive environmental assurance program that targets all size Michigan farms and all commodities, ensuring that farmers are engaging in cost effective pollution prevention practices and working to comply with state and federal environmental regulations.
- ...Facilitating success and long term sustainability.

Michigan Agriculture
Environmental Assurance Program



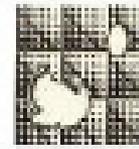
Michigan Agriculture
Protecting the Environment



Dairy Farmers of America



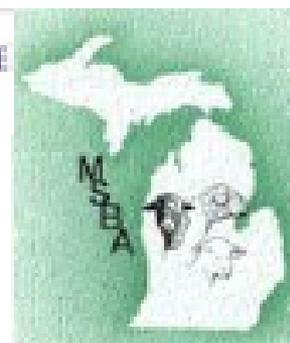
CRAWORLD



MICHIGAN
ALLIED
POULTRY
INDUSTRIES, IN



MICHIGAN TOWNSHIP ASSOCIATION



Over 50 Partners...

Michigan Agriculture
Environmental Assurance Program



Michigan Agriculture
Protecting the Environment

And Growing...



GreenStone[®]
FARM CREDIT SERVICES



Core Marketing Program of Michigan
Marketing Corn Growers Association



Michigan Food & Farming Systems-MIFFS
Bringing Farmers & Communities Together



THE MICHIGAN BEAN
COMMISSION





How does MAEAP Work?





PA 2, 2011

MAEAP codified in law

- Standards
- Advisory Council
- Ag Commission Role
- Regional Assurance Teams
- MOU with MDEQ
- Water Quality Monitoring and more.





Why do farmers participate?

Incentives in law (PA 1, 2011)

- Accidental discharge – No fines & penalties. (responsibility for notification/resource damage).
- TMDL – Farms verified in all applicable systems considered as meeting all required practices.
- Verified farms following standards & receiving defined rainfall with discharge considered nonpoint source discharge. Corrective action to avoid future discharge.

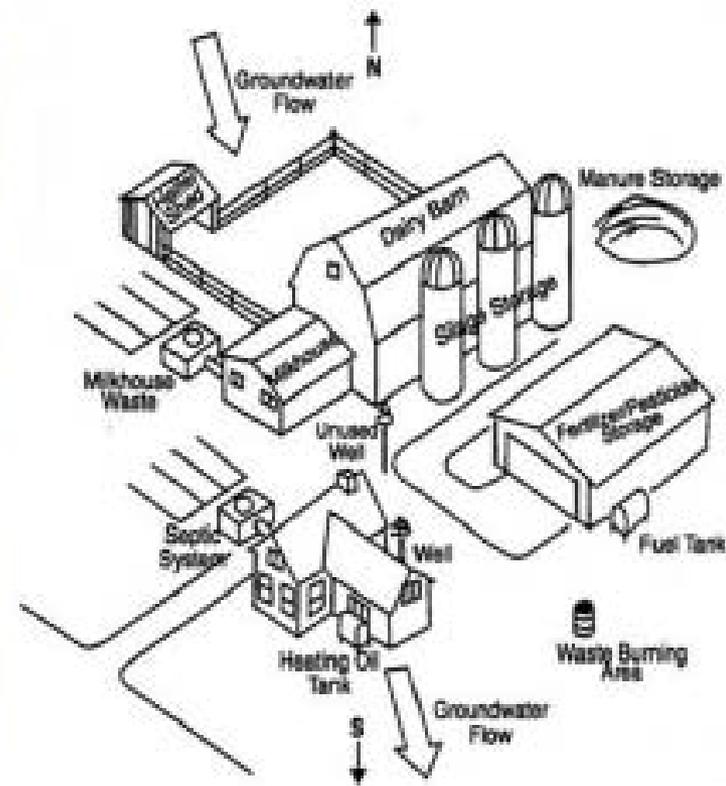


Why do farmers participate?

- Environmental concern
- Marketing opportunities
- Good neighbor
- Legislated incentives (PA 1, 2011)
- Peace of mind/right thing to do
- Access to cost-share and incentive payments
- RUP credits
- Liability/Ins \$ Reduction
- RTF protection
- GAP audit assistance
- Follow State and Federal laws
- Improved Management
 - Plan for long term
 - Ahead of curve
 - Learn & improve
 - Recognition



What does MAEAP do?







MAEAP farms have addressed

- Chemical storage and use
- Fuel storage
- Well safety
- Sensitive areas
- Water resources
- Soil erosion
- All related RTF GAAMP's
& Environmental laws
- And more...



MAEAP Facts: Phosphorus & Nitrogen reduced on MAEAP farms could have grown enough algae to cover over 85% of Higgins Lake at approx. 1/4 " in depth. (Higgins Lake is the 11th largest lake in Michigan)





Environmental Gains

- Currently over 10,000 farms participating with over 1,000 verifications.
- Sediment reduction – Over 200,000 tons per year or 18,164 - 10 yard dump trucks.
- Verified nutrient management plans in place on over half a million acres of MI farmland.
- Phosphorus reduction to surface water over 340,000# per year
- Nitrogen reduction to surface water almost 750,000# per year



MAEAP Stewardship Practices

- Over 240,000 acres receiving pesticides have approved pest management plans.
- Almost 6,000 acres of filter strips have been installed.
- Almost 1,300 gullies have been stabilized, improving water quality.
- Annually, over \$1.2 million is spent for practice implementation by farmers working toward MAEAP verification.



Verification Status – FY2012

Verifications:

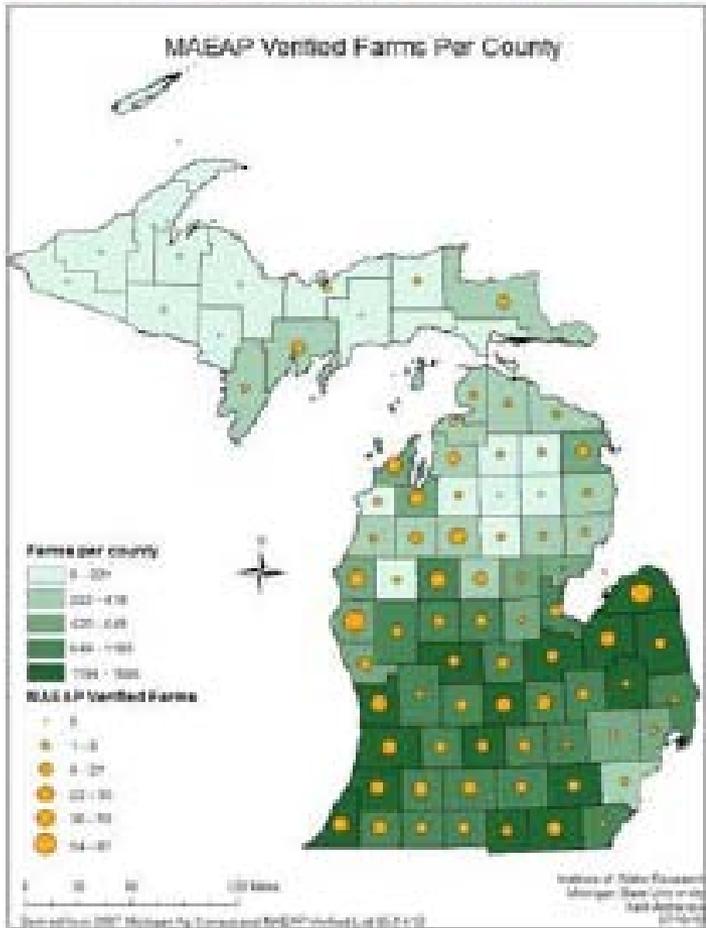
- Livestock – 468
- Farmstead – 440
- Cropping – 263
- Total Verifications - 1171

Moving toward 5,000
verifications by the
end of 2015!

Re-verifications:

- Livestock - 140
- Farmstead - 237
- Cropping – 172
- Total Re-verifications - 549







USEPA Region 5 Partnership

- Applauds Michigan's effort to implement MAEAP to complement Michigan's NPDES program.
- Appreciates reduced pollution for cropping system and small and medium livestock operations.
- Will continue to support MAEAP.
- Continues to assess the impact of 2011 legislation on Michigan's NPDES program.

Susan Hedman

Regional Administrator, Region 5

March 27, 2012



MAEAP Funding FY13

\$1M -

- 12 new FTEs to Conservation Districts
- 2 new MAEAP verifiers
- 1 new MAEAP engineer
- ½ additional administrative support

In addition, \$2.4M+ to Conservation Districts for technical assistance grants through the Groundwater Fund (GWF).

GWF is established through fees collected under part 87, Michigan Natural Resources & Environmental Protection Act.

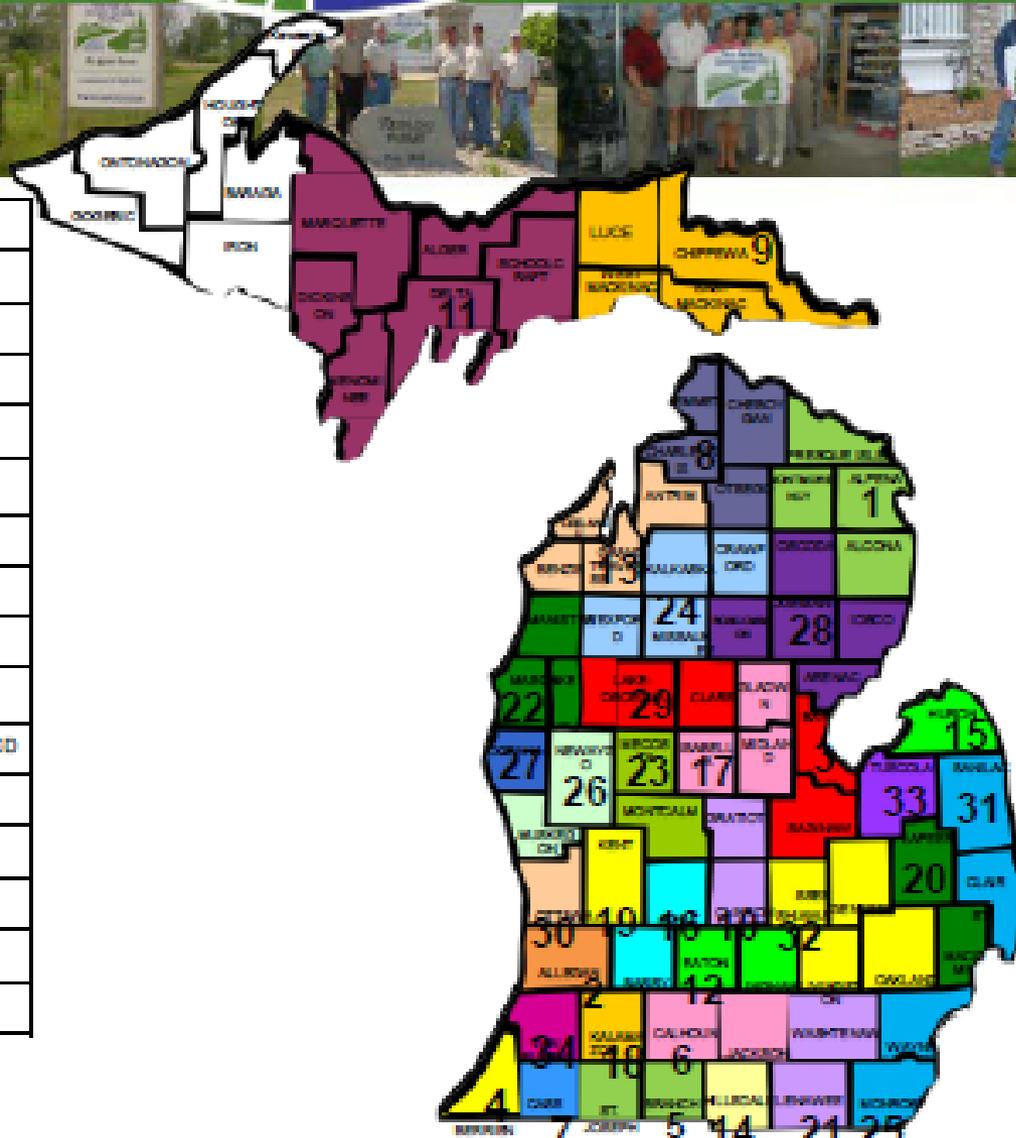
Michigan Agriculture Environmental Assurance Program



Michigan Agriculture
Protecting the Environment



1	Alcona CD	19	Kent CD
2	Alcona CD	20	Lapeer CD
3	Bay CD	21	Leelanau CD
4	Benlen CD	22	Mason-Lake CD
5	Branch CD	23	Macosta CD
6	Calhoun CD	24	Missaukee CD
7	Cass CD	25	Monroe CD
8	Charlevoix CD	26	Newsygo CD
9	Chippewa CD	27	Oceana CD
10	Clinton CD	28	Ogemaw CD
11	Delta CD	29	Oscoda - Lake CD
12	Eaton CD	30	Ottawa CD
13	Grand Traverse CD 2 FTEs	31	Sanilac CD
14	Hillsdale CD	32	Shiawassee CD 2 FTEs
15	Huron CD	33	Tuscola CD
16	Ingham CD	34	Van Buren CD
17	Iscobelle CD		SE MI Greenhouse Jackson CD
18	Isabella CD		



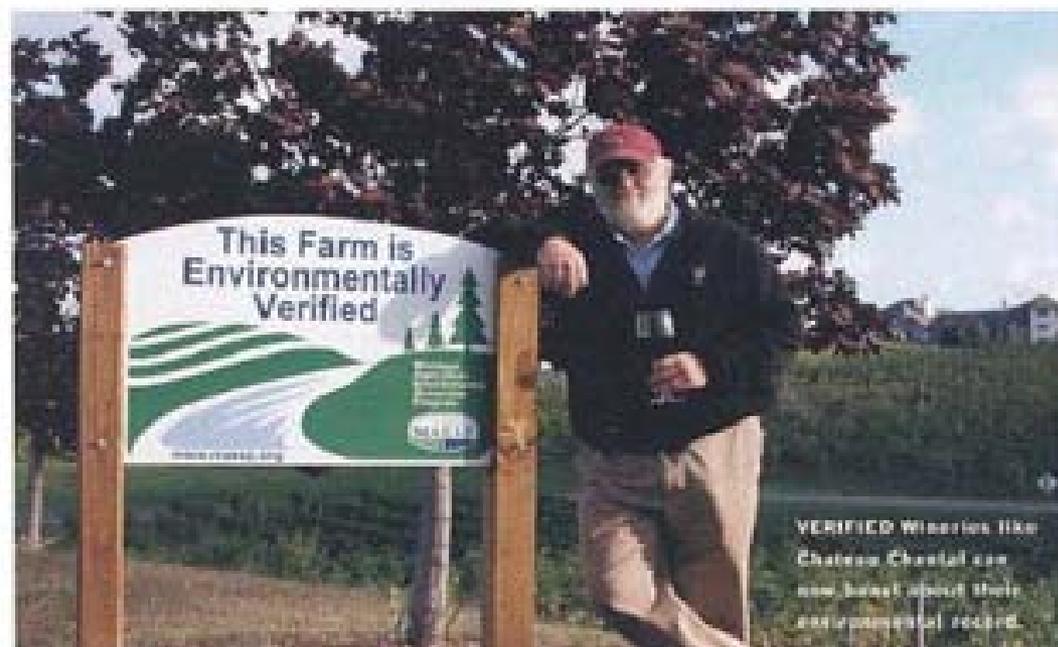


Local Stewards of the Land

Involvement

MICHIGAN WINERIES GROW GREEN WITH MAEAP

By Justice Wilford



VERIFIED Wineries like
Castano Chantal can
now boast about their
environmental record.

Beneath the seeming peacefulness of many Michigan vineyards is an abundance of environmental activity. Farmers have long been regarded as stewards of the land. However, their modern role as caretakers has changed, and life at Michigan's vineyards and wineries is under transformation.

family has always strived to make the land better and more productive. MAEAP verification lets us know we are doing what we can to manage our farms and our land as best we can."

In addition to robust educational requirements, growers are required to work with trained technicians through local conservation districts to establish environmental goals and address identified risks. Following completion of a farm-specific risk assessment and implementing any required corrective actions, farmers may request a third-party objective review by the MDA. The MDA verifies that educational and risk assessment requirements have been met, that the farm is in conformance with Michigan's Right to Farm Generally Accepted Practices and that the practices in place adequately address environmental risks. The farm is then "verified" and the farmer is eligible to purchase a sign to communicate this outstanding accomplishment to the community and to consumers. To maintain certification, the farmer must attend an educational session, update the farm plan, and be subject to an on-site visit every three years.

And the result? MAEAP-verified vineyards have proven they use sound environmental practices to protect natural resources and build



Community Awareness

JUNE 13, 2012 AT 10:27 PM

Ford's Cherry Hill farm honored for reducing agricultural pollution

BY MICHAEL MARTINEZ, THE DETROIT NEWS | 4 COMMENTS



Dale VanVliet (second from left) says he and his wife worked the property for 15 years, started in 1976 as Ford FW-60 dealer. (David Haddock / The Detroit News)

Superior Township— Tuesday wasn't your average day on the farm for Al VanVliet's house.

But then again, Cherry Hill is no run-of-the-mill farm.

"I could be out baling hay, but baling hay isn't as important as this," VanVliet's house said, pointing to the strings of guests outside the barn's shop for a pig roast. "This is very out of the norm."

The pig roast — VanVliet's house's idea — was a nice way to celebrate earning state honors for efforts to reduce farm pollution. The roast also was a fitting gesture. Such a community-building meal would have pleased the property's original owner, Henry Ford.

1



Sam Sparks said it is important that his farm addresses the most current good environmental practices. "The best part is the sense of accomplishment that happens on site and so, hey, they must be doing the farming thing correctly."

By John Eby

LATEST STORIES

MAEAP verifies Sparks farm

Published 10:52pm Tuesday, April 17, 2012

[Print](#) [Email](#) [Share](#) [Comments](#)

CASSIOPOLDS — Ken Sparks of Sparks Cedarlee Farm recently received the Farmstead verification in the Michigan Agriculture Environmental Assurance Program (MAEAP). Sparks Cedarlee Farm consists of 1,300 acres of cash crops and a 250-cow, pasture-based dairy.

MAEAP is a program that helps farms of all sizes and all commodities voluntarily prevent or minimize agriculture pollution risks.

It teaches farmers how to identify and prevent environmental risks and to comply with state and federal environmental regulations.

It is a collaborative effort of producers, Michigan Department of Agriculture,

Michigan Agriculture
Environmental Assurance Program



Michigan Agriculture
Protecting the Environment



MAEAP Verified Farms in Farm Market Promotions

A sign of integrity.

MAEAP-verified farms keep their land, water and air as healthy as the food they produce. They represent the highest standards of environmental stewardship and the pursuit of responsible agriculture.



Look for MAEAP signs at the local farms and markets you visit, and talk with the farmers. They're experts at producing safe, healthy, nutritious foods for you and your family, while caring for the environment that makes their livelihood possible.



Michigan Agriculture
Environmental Assurance
Program
www.maeap.org



Michigan Farmers Are Proud to Be MAEAP Verified!





Questions?



Visit us on
Facebook

www.maeap.org
www.michigan.gov/maeap



MAX.gov

Cloud Services Capabilities

EPA Region 8 Enclave as a subset

Sponsored by the Budget Formulation and Execution
Line of Business (BFELoB)



Government-wide Scope (including Non-federal Partners)



EPA Region 8 MAX Portal Enclave

- Designed for active Collaboration (with Staff and Stakeholders)
- Allows for enhanced communication and coordination
- Reduce duplicative actions with regard to documents (PPAs, Midyear actions, State Profiles, etc)
- Technical support: every day of the week
- Web-based collaboration site, short learning curve
- FISMA(Federal Information Security Management Act) compliant
- Cost to use the tools is covered by OMB, i.e., already funded



ENVIRONMENTAL PROTECTION AGENCY-EXTERNAL

EPA Region 8 State Partnerships

Search The MAX Community

All ▾

RESTRICTED ▾

Environmental Protection Agency-External > Home >

EPA Region 8 State Partnerships (15) ▾

📎 (2)

Edited By Anthony DeLoach(EPA) on Jul 23, 2012 at 11:57 AM ▾

Edit

Add ▾

Favorites ▾

Share

Watchers (2) ▾

[Home](#)[South Dakota](#)[North Dakota](#)[Montana](#)[Utah](#)[Wyoming](#)[Colorado](#)

Welcome to the EPA Region 8 State Partnerships Collaboration Area. This tool was designed to enhance



- **Communication**
- **Coordination and**
- **Collaboration**

with EPA, States and Other Stakeholders.

You can *watch* this page for changes by clicking on the envelope icon in the upper right.

Watch this entire "family of pages" area by clicking on the stacked envelope icon

Total number of views: 1043

EPA Region 8 Enclave
"Navigation Page"



- [Key Milestones for the FY 2013 NPM Guidance Process and FY 2012 Reporting](#)



ENVIRONMENTAL PROTECTION AGENCY-EXTERNAL

Partnership Performance Agreement (PPA) Calendar

Search The MAX Community All

RESTRICTED

Environment Home EPA Region 8 State Partnerships Partnership Performance Agreement (PPA) Calendar (3)

(6) (0)

Edited By Anthony DeLoach(EPA) on Apr 22, 2012 at 03:48 PM

Edit Add Favorites Share Watchers (2)

- Home
- South Dakota
- North Dakota
- Montana
- Utah
- Wyoming
- Colorado

PPA Streamlining Activities

PPA Streamlining Presentation to RLT

- ▶ Performance Partnership Timeline
- ▶ Performance Partnership Agreements Annual Schedule
- ▶ Program Calendars (PPA, OPRA, EPR, ECEJ, Key Milestones)

Child Pages (3) Add Child Page

Attachments (6) Attachment(s) Sort Show Details Advanced

EPA Region 8 Enclave
General Information Page
associated with all state
Partners



RESTRICTED ▾

State Page Example

Environm: Home EPA Region 8 State Partnerships EPA R8 Montana (3) ▾

Edited By Anthony DeLoach(EPA) on Jul 16, 2012 at 06:07 PM ▾

Edit

Add ▾

Favorites ▾

Share

Home

South Dakota

North Dakota

Montana

Utah

Wyoming

Colorado

PPA activities

Collaboration Information

Type	Name	Size	Creator/Modifier	Date ▾	Comment
	TMS_Comments_on_MT_Draft PPA for 2013.docx	12 kB	Anthony DeLoach(EPA)	Jul 12, 2012	Options
	OPRA_Comments_on_MT_Draft PPA for 2013.docx	12 kB	Anthony DeLoach(EPA)	Jul 12, 2012	Options
	EPR_Comments_on_MT_Draft PPA for 2013.docx	12 kB	Anthony DeLoach(EPA)	Jul 12, 2012	Options
	ECEJ_Comments_on_MT_Draft PPA for 2013.docx	12 kB	Anthony DeLoach(EPA)	Jul 12, 2012	Options
	MTPPA_2013Draft_with state track changes.docx	172 kB	Carson Coate(EPA)	Jul 03, 2012	Options
	MTPPA_2013Draft.docx	145 kB	Carson Coate(EPA)	Jul 03, 2012	Options



If the Draft is being edited and you can't wait to write your comments please write your



EPA Region 8 State Directors' Meeting July 25 - 26, 2012

Table of Contents

Agenda day 1..... 3

Agenda day 2..... 5

UIC Permitting guidance for Oil and Gas Hydraulic Fracturing Activities Using Diesel Fuels 6

EPA’s New Source Performance Standards (NSPS) for the Oil & Natural Gas Industry: 12

Implementation of an Interagency MOU to Safeguard Air Quality and Improve Coordination for Federal Oil & Gas NEPA Decisions..... 13

Status of Region 8 Regional Haze State Implementation Plans..... 16

3-State Study – Ozone..... 18

Winter-time problems/studies update..... 20

WRAP/WESTAR work on regional transport..... 28

Green House Gas (GHG) – Prevention of Significant Deterioration (PSD) Permit update..... 34

Regulatory Assistance Project (RAP)..... 35

Michigan Agriculture Environmental Assurance Program presentation 61

MAX Portal Presentation 74

Agenda day 1			
State Directors' Meeting 2012			
Wednesday, July 25th			
	Topic	Leader	Page Reference
8:00 am	Coffee & Rolls		
8:30	Welcome and Introductions	Jim Martin – EPA RA	
8:45	Budget		
	<ul style="list-style-type: none"> EPA budget discussion – latest on FY12 and FY13 	David Bloom, Director, Office of Budget (EPA HQ) (Teleconference)	
	<ul style="list-style-type: none"> Roundtable Discussion - Budget reduction and impact on program delegations and EPA activities in states 	EPA/States	
10:45	Break		
11:00	Energy Development/Issues		
	<ul style="list-style-type: none"> Bakken oil/gas development issues and North Dakota's response 	David Glatt – NDDH	
	<ul style="list-style-type: none"> Roundtable Discussion – What issues/opportunities are other states experiencing? (i.e. impacts to planning, etc.) 	All States	
12:00 pm	Lunch Break		
1:15	<ul style="list-style-type: none"> Energy Roundtable Discussion (continued) 	All States	
2:00	<ul style="list-style-type: none"> Updates and Discussion on : <ul style="list-style-type: none"> EPA Guidance on Diesel Use in Hydrofracturing EPA Study of Potential Impacts of Hydrofracturing on Drinking Water 	Sadie Hoskie/Kate Fay – EPA	6
2:30	<ul style="list-style-type: none"> Oil and Gas New Source Performance Standard Status of rule implementation; EPA/States discuss outlook on how states will implement this regulation NEPA Air Quality MOU Update 	Carl Daly/Kate Fay - EPA Suzanne Bohan - EPA	12 13
3:15	Break (Networking)		
3:45	Air		

Agenda day 1			
State Directors' Meeting 2012 Wednesday, July 25th			
	Topic	Leader	Page Reference
	<ul style="list-style-type: none"> • Regional Haze – Status and schedule 	Carl Daly - EPA	16
	<ul style="list-style-type: none"> • Ozone – Three State Study 	Ken Distler – EPA	18
	Winter-time problems/studies update	Amanda Smith – UDEQ/ Carl Daly – EPA	20
	WRAP/WESTAR work on regional transport	Amanda Smith - UDEQ	28
4:30	Climate Change – GHG		
	<ul style="list-style-type: none"> • Title V/Prevention of Significant Deterioration (PSD) Permitting Update 	Carl Daly - EPA	34
4:45	First Day Wrap Up		
5:15	Happy Hour at Coohills with Optional Dinner (see coohills.com)	All	

Reference Material	Page
National Nonpoint Source Study and the GAO Nonpoint Source Program Review	77

Agenda day 2			
State Directors Meeting 2012			
Thursday, July 26th			
	Topic	Leader	Page Reference
8:00 am	Coffee & Rolls		
8:30	Guest Speakers – John Shenot and Ken Colburn with the Regulatory Assistance Project (RAP)		
	<ul style="list-style-type: none"> Building Bridges Between Environmental Regulators (State and Federal) and Utility Regulators. <p>RAP is a non-profit, non-advocacy organization comprised of former state utility and environmental regulators, which offers free technical assistance, mostly on issues related to electricity policy, to current state regulators.</p> <p>Issues RAP has recently worked on are: 1) energy efficiency and renewable energy as air quality strategies; 2) promoting better understanding and constructive interaction between environmental regulators and utility commissions; 3) transmission expansion as a way to bring renewable energy from remote locations to where the energy is needed; and 4) the nexus between water and energy issues.</p>	John Shenot (bio p 56) and Ken Colburn (bio p 57) - RAP	35
9:30	Nutrients		
	<ul style="list-style-type: none"> Michigan Agriculture Environmental Assurance Program (MAEAP) Presentation 	Jan Wilford (bio p 59) - MAEAP/Jim Johnson (bio p 59) – MDARD (Adobe connect)	61
	<ul style="list-style-type: none"> Updates from State Ag & Env Directors 	States	
10:45	BREAK		
11:00	Performance Partnerships		
	<ul style="list-style-type: none"> State Program Delegations – Status of EPA Workgroup and ECOS 	Martha Rudolph – CDPHE/Gerard Bulanowski - EPA	
	<ul style="list-style-type: none"> PPA Streamlining – MAX System Demonstration 	Anthony DeLoach - EPA	74
11:30	Wrap Up	Jim Martin – EPA RA	
11:45 am	Adjourn		

UIC Permitting guidance for Oil and Gas Hydraulic Fracturing Activities Using Diesel Fuels

Update on EPA draft UIC Permitting Guidance for Oil and Gas Hydraulic Fracturing Activities Using Diesel Fuels

Region 8 State Director's Meeting
July 25 - 26, 2012

1



Risks and Rationale for Guidance

- **Source Water Availability**
 - Water used for hydraulic fracturing generally comes from public water sources, or directly from ground or surface waters
 - 2-5 million gallons per well may be used depending on the site
- **Groundwater Impacts**
 - Gas or fluid migration from faulty well casing
 - Improper siting, construction or management of UIC disposal wells
- **Surface Water Impacts**
 - Unauthorized surface discharge
 - Publically Owned Treatment Works accepting shale gas wastewater causes concerns for downstream Public Water Systems
 - HF flowback and produced water can contain naturally occurring high concentrations of total dissolve solids, major ions such as: sodium, total dissolved solids, as well as radionuclides.

2



Guidance Structure

- Applies to EPA UIC direct implementation programs
- Describes current Class II oil and gas injection requirements under SDWA and UIC regulations
- Provides a description of “diesel fuels” for the purposes of UIC Program implementation where EPA is the permit authority
- Provides recommendations for EPA permit writers for tailoring requirements to HF with diesel fuels (DFHF)

1



Guidance Content

1. UIC Background and Implementation
 - Determination of Class II as appropriate well class
 2. Diesel Fuels Description
3. Use of Area Permits
 4. Information for Permit Application
 5. Area of Review
 6. Permit Duration & Well Closure
 7. Construction & Mechanical Integrity
 8. Operation, Monitoring & Reporting
 9. Financial Responsibility
 10. Public Notification

4



Diesel Fuels Description

Representative CASRN's

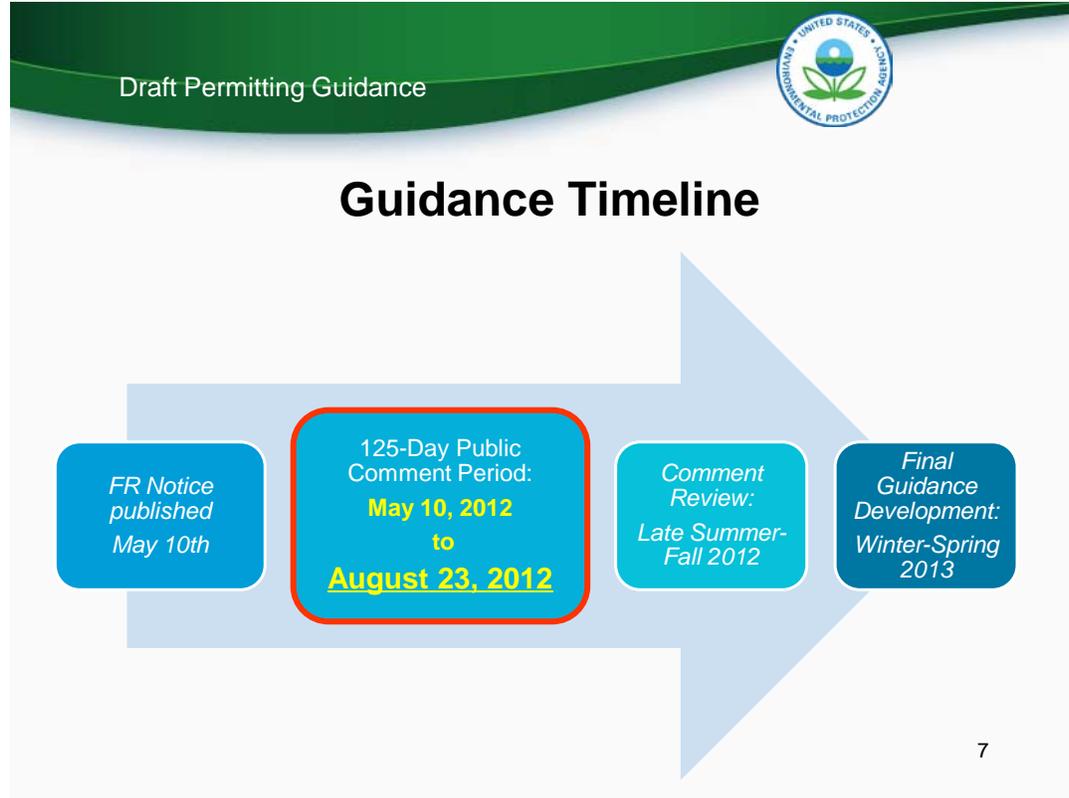
Diesel Fuel / Diesel Fuel No. 1 (68334-30-5)	Diesel Fuel / Diesel Fuel No. 2 (68476-30-2)	Fuel Oil No. 2 / Diesel Fuel (68476-34-6)	Fuel Oil No. 4 / Diesel Fuel No. 4 (68476-31-3)	Kerosene / Marine Diesel Fuel (8008-20-6)	Distillates (Petroleum), Crude Oil / Diesel Fuel (VDF) (68410-00-4)
---	---	--	--	--	--

Note: Guidance does not specify a *de minimis* diesel fuels amount



Key Guidance Recommendations

- Extend surface casing to the base of the lowermost USDW
- Mechanical integrity Test (MIT) before and after HF operations to demonstrate no significant fluid movement into USDW
- Consider construction, geologic conditions, and historical activities when determining injection pressures
- Use area permits to address timing concerns associated with public notice
- To address short injection timeframe of HF activity;
 - convert out of UIC program (from injection to production well), or
 - change status to temporarily abandoned after HF injection phase ends, and reduce monitoring, MIT, and reporting requirements during temporary abandonment



-
- Key Public Comment Topics**
- Definition of 'Diesel Fuels' for UIC permitting
 - Absence of any de minimis (threshold) volume
 - Tribal consultation
 - Significant delays
 - Totally ban
- 8



Submitting Public Comments

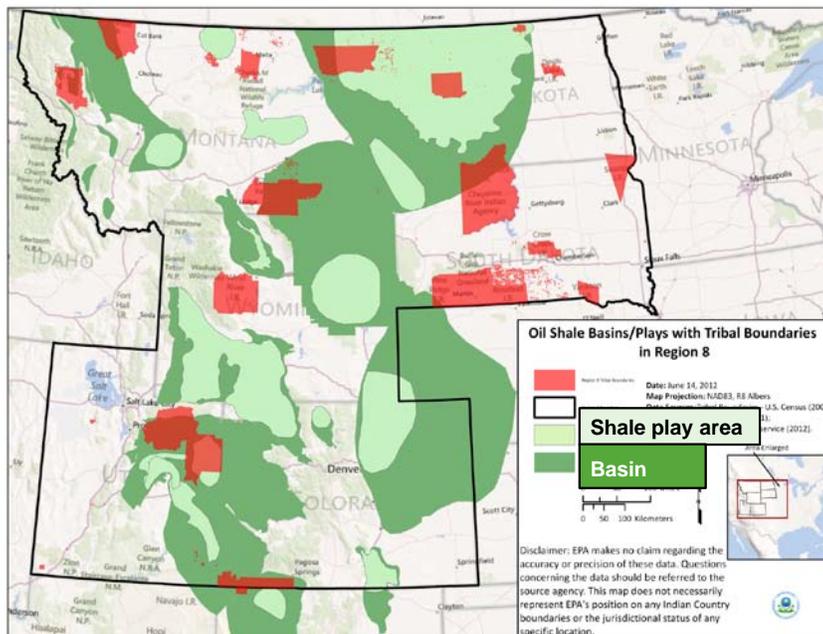
Specify Docket ID No. EPA-HQ-OW-2011-1013

- **Online:** Go to www.regulations.gov, and follow the on-line instructions for submitting comment
- **Email:** OW-Docket@epa.gov
- **Mail:** Permitting Guidance for Oil and Gas Hydraulic Fracturing Activities Using Diesel Fuels - Draft, Environmental Protection Agency, Mailcode: 4606M, 1200 Pennsylvania Ave., NW, Washington, DC 20460.
- **Hand Delivery:** Office of Water (OW) Docket, EPA/DC, EPA West, Room 3334, 1301 Constitution Ave., NW, Washington, DC.

7/23/2012

U.S. Environmental Protection Agency

9



10

Thank You!



EPA Hydraulic Fracturing Website

www.epa.gov/hydraulicfracturing

EPA's New Source Performance Standards (NSPS) for the Oil & Natural Gas Industry:

On April 17, 2012, EPA issued a final NSPS for control of volatile organic compounds (VOCs) from oil and natural gas production. The final NSPS has not yet been published in the federal register.

The NSPS establishes two phases for reducing VOCs during natural gas well completions.

In the first phase (before Jan. 1, 2015), industry must reduce VOC emissions either by flaring or using a combustion device or by capturing the gas using green completions. EPA encourages industry to begin using green completions during this time.

After Jan. 1, 2015, operators must capture the gas and make it available for use or sale, which they can do through the use of green completions.

EPA estimates that use of green completions during the flowback period reduces VOC emissions from completions and recompletions of hydraulically fractured wells by 95 percent at each well.

Green completions are not required for new exploratory wells or hydraulically fractured low-pressure wells, where natural gas cannot be routed to the gathering line.

The NSPS for well completions applies to new natural gas wells that are hydraulically fractured. It does not apply to oil wells.

The NSPS has requirements for new storage vessels at a well site.

New storage tanks at oil and natural gas wells with VOC emissions of 6 tons a year or more must reduce VOC emissions by at least 95 percent. EPA expects this will generally be accomplished by routing emissions to a combustion device.

The rule provides a one-year phase-in for this requirement. After one year, owners/operators of new storage tanks will have 30 days to determine the emissions from a tank; and another 30 days to install controls.

The NSPS has requirements for new & modified pneumatic controllers.

For controllers used at the well site, the gas bleed limit is 6 cubic feet of gas per hour at an individual controller. A controller is subject to this rule if it was in stock or ordered after Aug. 23, 2011.

The rule phases in this requirement over one year, to give manufacturers of pneumatic controllers time to test and document that the gas bleed rate of their pneumatic controllers is below 6 cubic feet per hour.

Low-bleed controllers (with a gas bleed rate less than 6 standard cubic feet per hour) are not subject to this rule.

More Information: For summary information on requirements for other types of facilities, or to read the final rules, visit www.epa.gov/airquality/oilandgas.

MOU Air Quality and Federal Oil & Gas NEPA Decisions

Implementation of an Interagency MOU to Safeguard Air Quality and Improve Coordination for Federal Oil & Gas NEPA Decisions



Implementation of an Interagency MOU to Safeguard Air Quality and Improve Coordination for Federal Oil & Gas NEPA Decisions

Among

- Bureau of Land Management
- U.S. Forest Service
- Environmental Protection Agency
- National Park Service
- Fish & Wildlife Service



1

NEPA Requirements

- ❑ Federal agencies must analyze and disclose impacts of major actions **MOU Implementation**
- ❑ Analyze reasonably foreseeable direct, indirect, and reasonably foreseeable cumulative impacts.
- ❑ Identify and evaluate mitigation measures



2

What Does the MOU Mean for Federal Decision Makers & Planners?

- ❑ No change in decision-making authority for Federal oil & gas decisions.
- ❑ Process for gathering and disclose information now emphasizes collaboration.
- ❑ No change in roles and responsibilities of states or other partners.



3

MOU Benefits and Expected Outcomes

- ❑ Early collaboration will ensure all agencies are informed, have opportunity to participate and reduce disagreements and resulting project delays.
- ❑ Consistent consideration and protection of air quality and AQRVs.
- ❑ Encourages efficiencies through reusable data, reducing cost and analysis time.



4

Examples



- ▣ MT/SD RMPs
- ▣ White River RMP

Status of Region 8 Regional Haze State Implementation Plans

Background

On January 19, 2011, the National Parks Conservation Association (NPCA), in conjunction with numerous other environmental groups including Wild Earth Guardians (WEG), filed a notice of intent to sue, because EPA had not met its obligation to approve a Regional Haze (RH) state implementation plan (SIP) or issue a federal implementation plan (FIP) for many states (nationally) by the January 15, 2011 deadline. (The January 15, 2009 finding of failure to submit included North Dakota, South Dakota, Montana, Colorado and Wyoming for Region 8. Utah was not part of the findings as they did submit a RH SIP in September 2008.) A national consent decree was negotiated with NPCA and other environmental groups, which includes deadlines for our action on South Dakota. Region 8 negotiated separately with WEG, NPCA, and Environmental Defense Fund on the rest of the Region 8 states in order to coordinate timing of deadlines with the Region's other existing consent decree deadlines.

Region 8 State Status on RH Plans

Colorado

Date RH SIP Submitted	Consent Decree Proposed Action Signature Deadline	Consent Decree Final Action Signature Deadline	Status
5/25/11	3/8/12	9/10/12	Proposed SIP approval signed on 3/8/12. Rulemaking published on 3/26/12.

Montana

Date RH SIP Submitted	Consent Decree Proposed Action Signature Deadline	Consent Decree Final Action Signature Deadline	Status
The state gave back the RH program in a 6/19/06 letter.	3/20/12	8/15/12	Proposed FIP and approval of smoke management SIP signed on 3/20/12. Rulemaking published on 4/20/12.

North Dakota

Date RH SIP Submitted	Consent Decree Proposed Action Signature Deadline	Consent Decree Final Action Signature Deadline	Status
State submitted a 308 SIP on 3/10/10 and amendments on 7/27/10 and 7/28/11.	9/11/11	3/2/12	Final FIP and partial approval/disapproval of SIP signed on 3/1/12. Rulemaking published on 4/6/12.

South Dakota

Region 8 State Directors' Meeting | 2012

Regional Haze State Implementation Plans

Date RH SIP Submitted	Consent Decree Proposed Action Signature Deadline	Consent Decree Final Action Signature Deadline	Status
State submitted a 308 SIP on 1/21/11 and an amendment to its SIP on 9/19/11.	11/29/11	3/29/12	Final approval of SIP signed on 3/29/12. Rulemaking published on 4/26/12.

Utah

Date RH SIP Submitted	Consent Decree Proposed Action Signature Deadline	Consent Decree Final Action Signature Deadline	Status
State submitted a 309 SIP on 9/9/08. The state revised this SIP and submitted it on 5/26/11.	4/30/12	10/31/12	Proposed SIP partial approval/disapproval signed on 4/26/12. Rulemaking published on 5/16/12.

Wyoming

Date RH SIP Submitted	Consent Decree Proposed Action Signature Deadline	Consent Decree Final Action Signature Deadline	Status
State submitted a 309 SIP on 11/21/08. State submitted a 309(g) SIP on 1/14/11.	5/15/12	10/15/12	Proposed partial approval/disapproval and FIP for 309(g) signed on 5/15/12. Rulemaking published on 6/4/12. Proposed approval notice for 309 SIP signed on 5/9/12. Rulemaking published on 5/24/12.

3-State Study – Ozone

Issue

Due to duplicative, time consuming and costly air quality analysis in NEPA work – 3 State Study was formulated by FLMs and states.

- monitoring
- data warehouse
- base case modeling with evaluations

Study Objectives

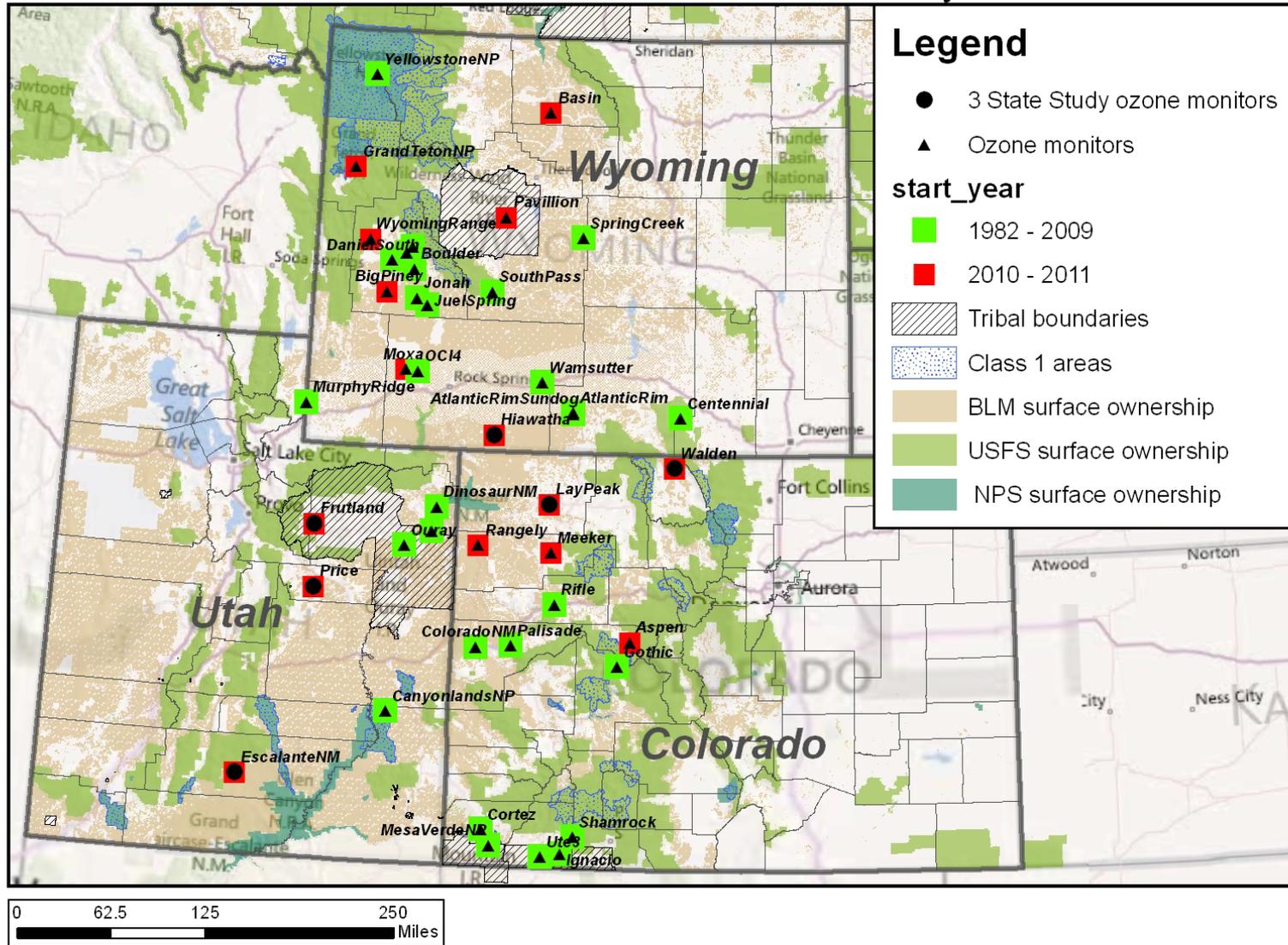
- Add additional ozone monitoring sites - 3 years:
 - baseline monitoring and understand spatial extent
 - trends
 - model evaluations
- Improve emissions estimates
- Integrate monitoring, emissions and modeling data in one place- Data Warehouse
- Provide a framework for more consistent and frequent modeling assessments

Status

- 3 State Study MOU signed (EPA R8, WYDEQ, UDEQ, CDPHE, USFS, BLM -3 State Offices, NPS) Jan 2011.
- 6 monitoring sites reporting to AQS in 2011(see attached map).
- Study is fully funded through 2013 and currently on schedule with MOU Timeline. Funding is necessary after 2013 for additional monitoring, modeling and data warehouse upkeep.
- Data Warehouse
 - Work being done by Western Governors Association (WGA) and the Colorado Institute for Research in the Atmosphere (CIRA) under direction from Steering Committee with advice from technical workgroups on data warehouse design.
 - Contractors have hired emissions modeler and about to hire other additional staff for Study.
 - Database will be component of existing CIRA VIEWS database network (<http://views.cira.colostate.edu/web/>).
 - Computing resources for warehouse has been purchased and some of the database programming started.
 - Current thinking is to provide internet access to basic smaller aspects to data.
 - Working on ensuring consistency with EPA NEI emissions data.
- Warehouse contract work is being done by Current Study plan is to integrate 2008 modeling WESTJUMP project with 3-State Study. All data projected to 2011, then modeled and evaluated. Future modeling years under evaluation -principally for NEPA purposes.
- Putting specific details into workplan for data warehouse
- Update meetings held regularly with workgroups , Steering Committee and FLF/State Air Directors.
- This study potentially meets the National DOI, USDA and EPA oil/gas MOU described as **reusable model framework**.
- CO, UT and WY have been active and valuable participants on the study.

3 state study

Ozone Monitors in the 3 State Study Area



Disclaimer: EPA makes no claims regarding the accuracy or precision of this data. Questions concerning the data should be referred to the source agency. The Reservation boundaries shown here are suitable only for general spatial reference and do not necessarily represent EPA's position on any Indian country boundaries or the jurisdictional status of any specific location. EPA programs should consult the Office of Regional Counsel for legal advice before making decisions regarding jurisdiction on or near any Reservation.

Unita Basin 2012 Winter Ozone Study Update

Winter-time problems/studies update

**Uintah Basin 2012
Winter Ozone Study Update**

Uintah Basin Air Quality /Oil & Gas Meeting
July 11, 2012
Brock LeBaron, UDEQ

Purpose: understand how ozone is formed in the Basin during wintertime inversion conditions. Identify the chemical pathways that are unique to the Basin's winter situation.

Randy Martin Department of Environmental Quality  Division of Air Quality





Study Report

- Study was very successful even though strong inversion conditions and snow cover never developed.
- Researchers are currently compiling their results and drafting conclusions to be published in the study report due out this October.
- Recommendations for further research and a direction for ozone mitigation will be part of the report.

Public Notification

Reporting current conditions and daily forecast

Box Elder Cache SLC/Davis Tooele **Uintah** Utah Washington Weber

Uintah County 3 - Day Forecast

Tuesday	Wednesday	Thursday
Good	Good	Good

Current Conditions Trend Charts

Air Quality Tutorials Website: www.airquality.utah.gov

- Air Quality, WMV | MP4
- How to Use DAAQ's Web Site, WMV | MP4
- Recess Guidance, WMV | MP4

Monitored Ozone Values

Standard is 75 ppb – 4th high averaged over 3 years

Site	2009	2010	2011	2012 (thru 4/24)
Ouray	-	117	116	59
Redwash	-	98	100	59
Whiterocks	82	-	- / 64	61
Myton	94	-	111 / 65	62
Vernal	-	-	-	55
Fruitland	-	-	- / 65	60
Dinosaur	-	-	90	62

* Bold values indicate regulatory data

Summary

- Recognition of an air quality problem
- Proactive approach to finding a solution
- Cooperative, voluntary effort
- Mitigation will be science based
- Credit for early reductions

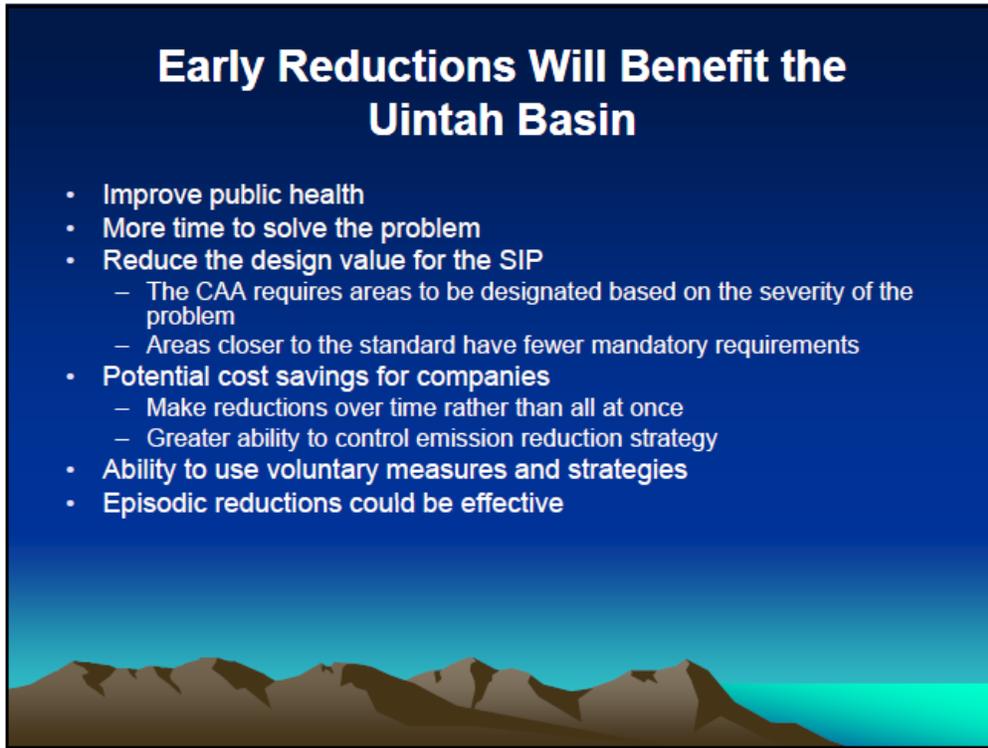


Ozone Advance Program

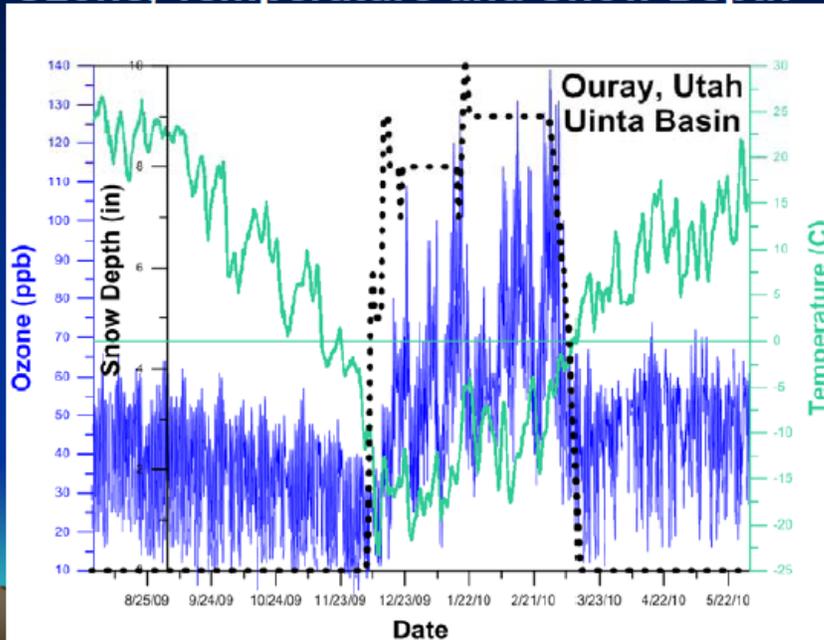
- Governor Herbert requested enrollment of the Uintah Basin on May 21, 2012.
- Provides a framework to achieve early reductions prior to non-attainment.
- Accelerates improvements to public health.
- Ensures that new development continues in the Basin using the best available technology.
- Provides an avenue to give credit to companies for early action.
- Provides technical backstop for NEPA regulatory evaluation.

Early Reductions Will Benefit the Uintah Basin

- Improve public health
- More time to solve the problem
- Reduce the design value for the SIP
 - The CAA requires areas to be designated based on the severity of the problem
 - Areas closer to the standard have fewer mandatory requirements
- Potential cost savings for companies
 - Make reductions over time rather than all at once
 - Greater ability to control emission reduction strategy
- Ability to use voluntary measures and strategies
- Episodic reductions could be effective



Ozone, Temperature and Snow Depth

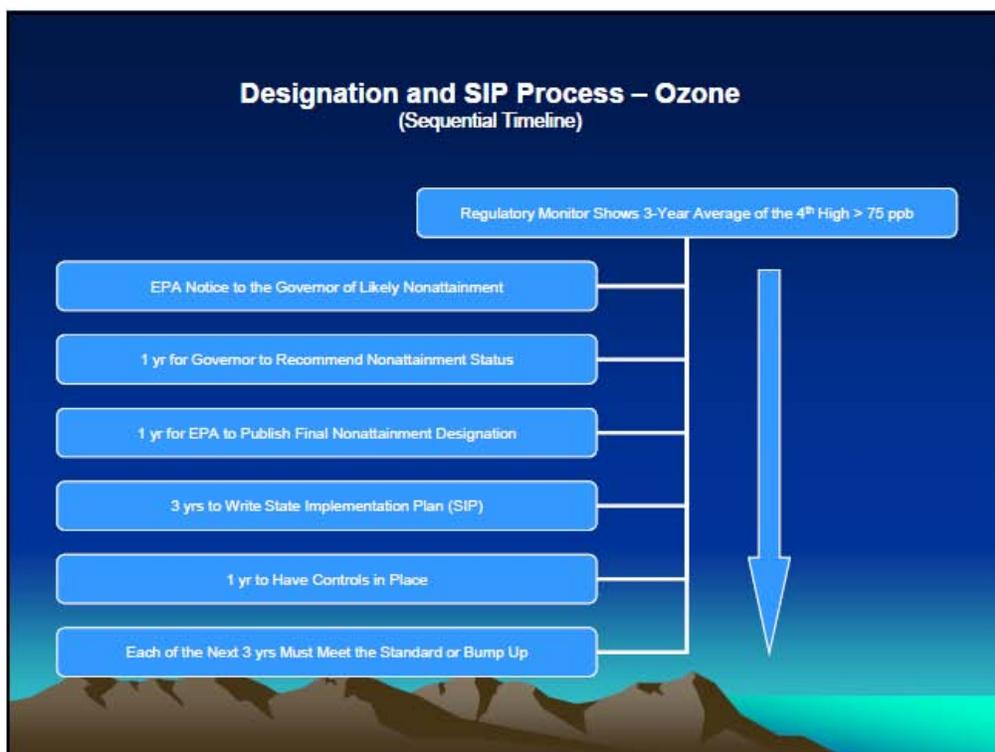


Source: Russ Schnell, Director, Observatory Operations, NOAA/CMDL

Summary

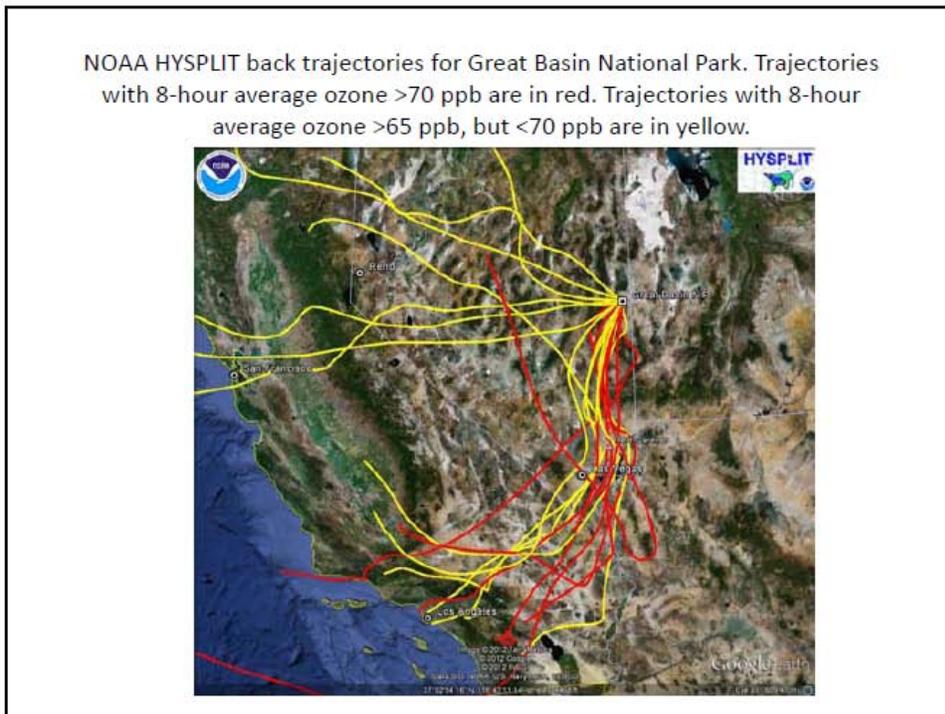
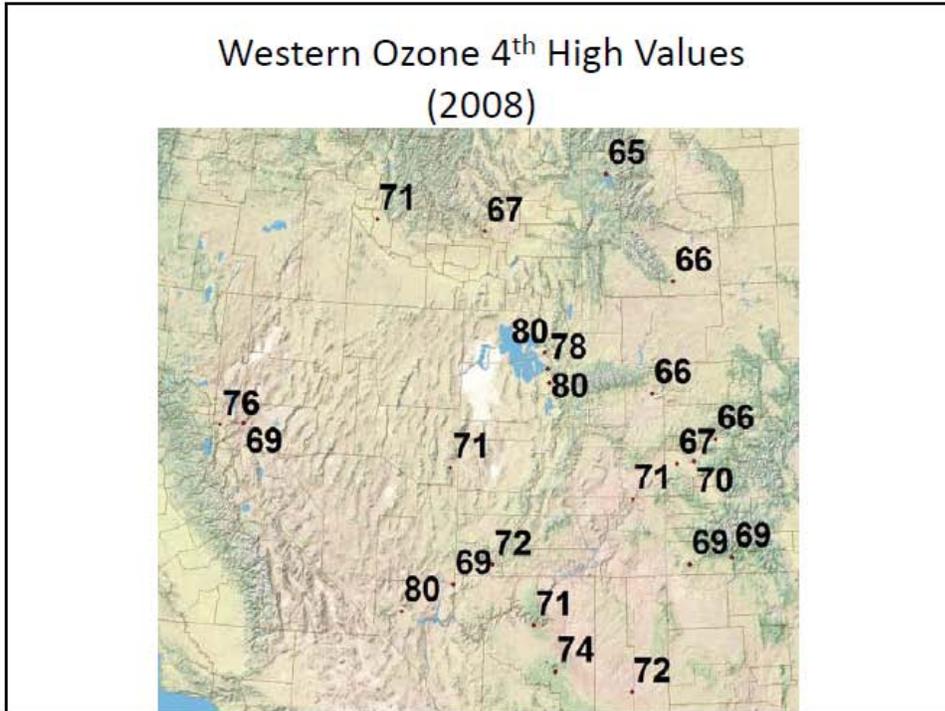
- Monitoring data indicates an ozone problem although “regulatory” data is meeting the standard
- We have a window of opportunity to mitigate the problem and this has a number of benefits
- Technical experts are evaluating the science so mitigation moves in an appropriate and effective direction
- Jurisdictional issues to address

Website: www.airquality.utah.gov Click on [Uintah Basin Air Quality and Energy Development](#)

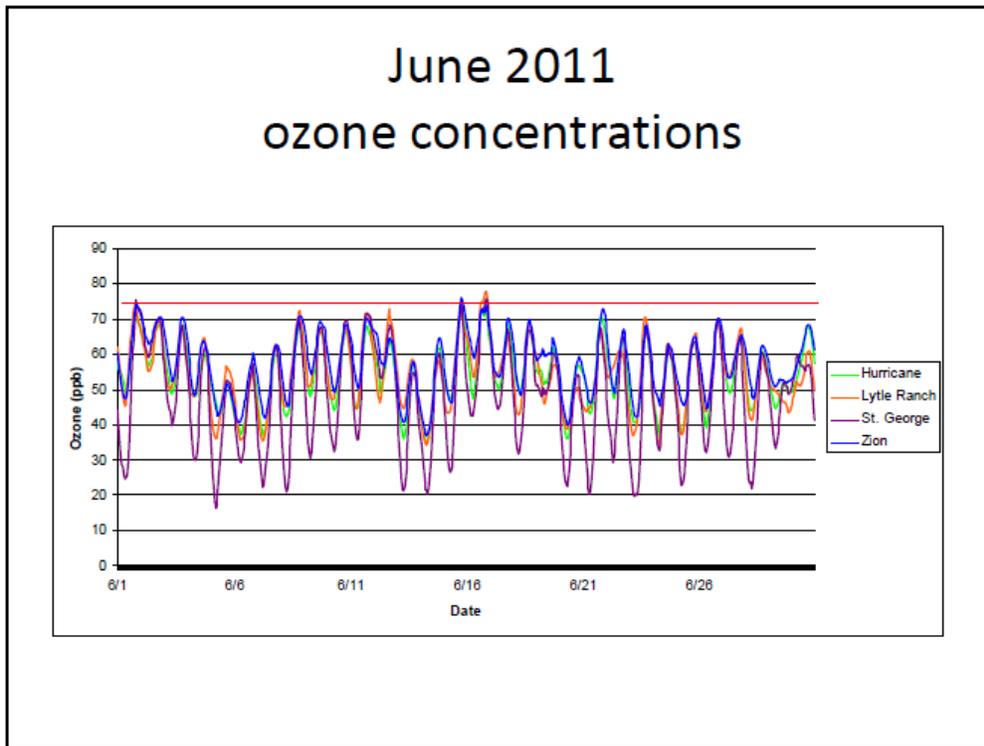


WRAP/WESTAR work on regional transport

WRAP/WESTAR work on regional transport



WRAP/WESTAR work on regional transport



High Ozone Days in Salt Lake

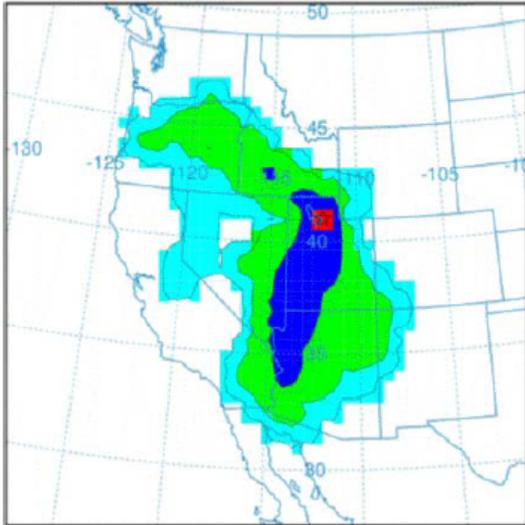
Hysplit and NO_x Statistics for the 39 highest ozone days (O₃>65 ppb)

- 64% passed over southern California
- 74% passed over Las Vegas
- 74% passed over Southern California or Las Vegas
- 64% passed over both
- 17% passing over LA had high NO_x in LA 2 days prior
- 35% passing over Barstow had high NO_x in Barstow 2 days prior
- 48% passing over Las Vegas had high NO_x in Vegas 1 day prior

WRAP/WESTAR work on regional transport

SLC – 24 Hr. Backward Trajectory Analysis

(Where the air mass came from)



Hysplit4 24 Hr Trajectory Analysis

Trajectory every 6 hrs in July

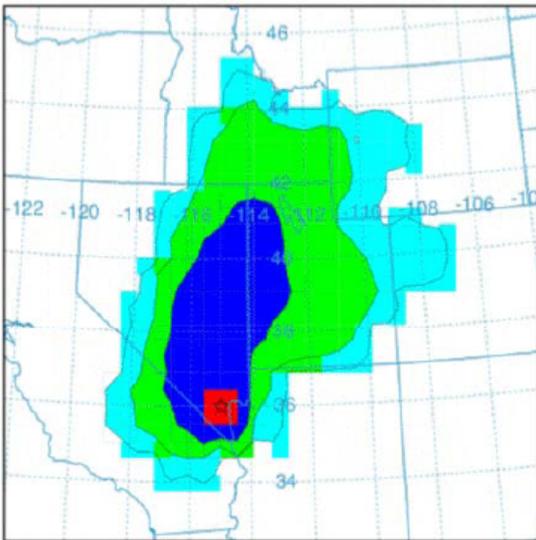
All trajectories began in colored areas and ended in Salt Lake

Dark Blue areas had highest probability of a trajectory passing through it

Light Blue areas had lowest probability of a trajectory passing through it

Vegas – 24 Hr. Forward Trajectory Analysis

(Where the air mass was projected to go)



Hysplit4 24 Hr Trajectory Analysis

Trajectory every 6 hrs in July

All trajectories ended in colored areas

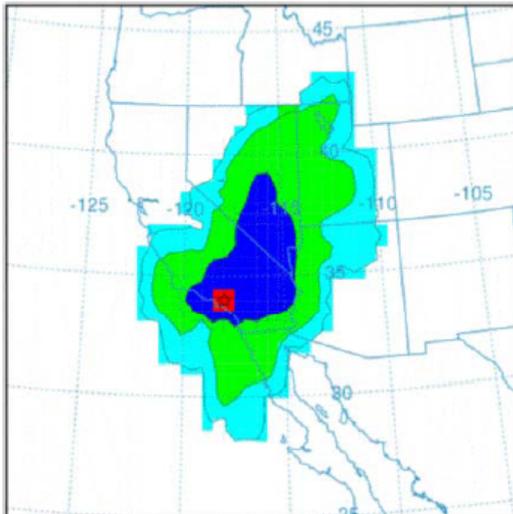
Dark Blue areas had highest probability of a trajectory passing through it

Light Blue areas had lowest probability of a trajectory passing through it

WRAP/WESTAR work on regional transport

LA – 24 Hr. Forward Trajectory Analysis

(Where the air mass was projected to go)



Hysplit4 24 Hr Trajectory Analysis

Trajectory every 6 hrs in July

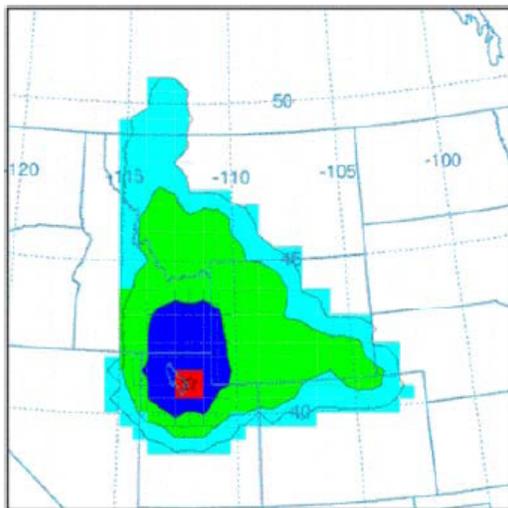
All trajectories ended in colored areas

Dark Blue areas had highest probability of a trajectory passing through it

Light Blue areas had lowest probability of a trajectory passing through it

SLC – 24 Hr. Forward Trajectory Analysis

(Where the air mass was projected to go)



Hysplit4 24 Hr Trajectory Analysis

Trajectory every 6 hrs in July

All trajectories ended in colored areas

Dark Blue areas had highest probability of a trajectory passing through it

Light Blue areas had lowest probability of a trajectory passing through it

WRAP/WESTAR work on regional transport

WRAP Technical Project Status Report – July 10, 2012



	Activities	Deliverables	Approach/Funds
2) West-wide Jumpstart Air Quality Modeling Study (WestJumpAQMS)	<ul style="list-style-type: none"> High resolution model domains in West 2 types Detailed Source Apportionment Upgraded Meteorological Modeling 2005 NEI Emissions + WRAP projects 2008 Base Case Model Performance Evaluation 	<ul style="list-style-type: none"> Updated Western modeling and source apportionment State-of-the-science modeling platform 	<p>State-EPA-FLM-Local Air Agency direction, coordinated with ORD/OAQPS</p> <p>Funded by State of NM (\$191k), BP (\$30k), and BLM national air program (\$500k)</p>
2) WRAP Phase III Oil & Gas Emission Inventory	<ul style="list-style-type: none"> Western Energy Alliance and WRAP collaborative project State and EPA O&G permit data Then detailed surveys of O&G operators to determine 100% of their source activity in each Basin 	<ul style="list-style-type: none"> Complete and comparable inventories for 2006 & 2012 Model-ready files <ul style="list-style-type: none"> Used in new OAQPS national modeling platform Applied in project 2 	<p>Transparent, well-documented protocol, results for each Basin reviewed by WRAP O&G workgroup (100+ members, states, feds, industry, enviros)</p> <p>20% FTE WRAP staff time from EPA grant \$100k (State of WY to WRAP)</p> <p>\$1M+ by Western Energy Alliance for contractor work</p> <p>\$30k to WEA from State of ND</p>
2) Assessment of Smoke's Contribution to Ozone (DEASCOS)	<ul style="list-style-type: none"> Analysis of complex relationship between fires and elevated Ozone Describe how fires contribute to ambient Ozone concentrations National emission inventory development for wildland and agricultural fires in 2002 and 2008 Photochemical grid modeling with fire emissions source apportionment 	<ul style="list-style-type: none"> Develop online tool for FLMs to access results Collaborative review and analysis by NPS and USFS air program staff Documentation and summary reports of methods and results Evaluation of contributions to Ozone NAAQS violations and exceptional events 	<p>FLM collaboration, endorsed by OAQPS and states</p> <p>Leverages project 2 - modeling platform and data</p> <p>Funded by FLM FireScience program (\$370k)</p>

	Activities	Deliverables	Approach/Funds
6) Federal Leadership Forum / 3-State Air Quality Study	<ul style="list-style-type: none"> NPS, USFS, BLM, EPA-R8 and state air agencies (CO, UT, and WY) working together to: <ul style="list-style-type: none"> Plan for and manage Ozone impacts of energy development Build state and federal agencies' capacity Run additional rural monitors 	<ul style="list-style-type: none"> CIRA/CSU to construct Data Warehouse for public agencies and their contractors to use (\$250k/year) Develop and apply protocols New "Acceleration effort" adds emissions and analysis work to project, cost not fully scoped 	<p>Project direction and funding from member agencies' Steering Committee</p> <p>WRAP staff working 40% FTE time (~\$60k/year) to coordinate technical work and facilitate Steering Committee</p> <p>Stores and applies projects 2 and 4 - modeling platforms and data</p>
Western Biogenic Emissions Inventory Improvement <i>Already Completed</i>	<ul style="list-style-type: none"> Develop consistent Western biogenic emissions inventory Compare models (NCAR to EPA) In NCAR model: <ul style="list-style-type: none"> Apply current/better land use and land cover information Update algorithms and factors 	<ul style="list-style-type: none"> New NCAR model version Updated western emissions, including insect kill trees and current land use 2008 files applied in project 2, above – also for state, federal, and local agencies 	<p>State-EPA-FLM-Local Air Agency direction, coordinated with ORD/OAQPS</p> <p>Funded by WESTAR Council (\$128k)</p>

WESTAR Fall Technical Conference: Western Ozone Transport

Objective: Increase understanding of the science of ozone background and transport in the West and how the science can help inform state regulatory agency decision making for nonattainment area planning, and interstate transport assessment requirements of the Clean Air Act.

Audience: This conference is intended for state air quality agency science and regulatory staff and scientists working in the field of western ozone transport.

Background: The Clean Air Scientific Advisory Committee (CASAC), in its most recent review of health effects studies of ozone recommended that the National Ambient Air Quality Standard (NAAQS) standard be set at a level in the range of 60 to 70 ppb. In early 2010, EPA proposed reducing the NAAQS for ozone from 75 ppb to a value in this range, however this change was not made. EPA has indicated it will complete another review of the health and welfare effects data for the ozone NAAQS next year. EPA also previously proposed a novel secondary standard for ozone.

In the past, state implementation planning efforts to reduce ozone in the West have focused primarily on urbanized area control strategies. An ozone NAAQS in the range of 60 to 70 ppb would potentially bring many new and largely rural areas without significant air pollution sources into nonattainment and require states to develop plans to bring the areas into attainment with the standard. In addition, Clean Air Act section 110(a)(2)(D) requires states to make determinations about interstate transport of ozone and its impact on other states when the NAAQS is revised.

These regulatory challenges are complicated by uncertainties about the relative contributions of ozone and ozone precursors from natural and anthropogenic sources at the local, regional and international scales, as well as in our understanding of the direct contribution of ozone associated with stratospheric intrusions.

This conference will examine current scientific efforts to understand background and transported ozone in the western United States and the potential for using that knowledge to inform regulatory actions by state air quality agencies.

Specific questions to be addressed at the conference include:

1. What are the source areas of ozone and what is the relevance of each to surface ozone in the western U.S.?
 - a. Local/regional,
 - b. Western regional transport,
 - c. Long-range transport from Asia,
 - d. Stratospheric intrusions and,
 - e. Wildfires.
2. Where are the monitored observations being made; what are the concentrations and trends, and what are emerging methods that can be applied to investigate source areas?
3. What other sources of observational data (i.e. lidar, satellite, etc.) are potentially available for use by state air quality agencies? What is being measured and what observations are useful? Are there other things that need to be measured? What are the limitations of these methods?
4. What global and regional models are being applied to characterize western ozone and how can these tools help us? What are the strengths and weaknesses of these models?
5. What are the Clean Air Act requirements with respect to background and transported ozone and how can the emerging science help states meet the regulatory requirements?

Green House Gas (GHG) – Prevention of Significant Deterioration (PSD) Permit update

Issuance of Federal GHG - only PSD permits in Region 8:

Background:

On December 30, 2010, EPA published a Federal Implementation Plan (FIP) making EPA the GHG PSD permitting authority for states that do not have the authority to implement GHG PSD permitting. (See 75 FR 82246.) Wyoming still retains approval of its State Implementation Plan (SIP) PSD permitting program for pollutants that were subject to regulation before January 2, 2011 (i.e., regulated NSR pollutants other than GHGs).

Current Status:

Black Hills Corporation/Cheyenne Light Fuel & Power, Cheyenne Prairie Generating Station

- Permit proposed, public hearing held June 21st, comment period closed June 21st.
- Public comment period and hearing were held concurrently with State of Wyoming.
- Currently addressing comments and working on issuing final permit.

Sinclair Refinery

- GHG permit application received October 2011, currently working on drafting permit.

FMC Granger Facility – Trona mine

- GHG permit application received May 2012, next in queue for permit drafting.

Solvay – Trona mine

- Expect to receive GHG permit application soon

Review of State PSD permits in Region 8 involving GHGs:

Utah:

Pacificorp Lakeside Block 2 combustion turbine project (565 MW)

- EPA comments 03/04/11; Final permit issued 05/04/11

Kennecott Power Plant repowering combustion turbine project (275 MW)

- EPA comments 10/27/11; Final permit issued 12/01/11

Sevier Power Company combustion turbine project (580 MW)

- EPA comments 06/07/12; Final permit not yet issued.

South Dakota:

Hyperion Energy Center – new petroleum refinery (400,000 bpd) with IGCC plant

- EPA comments 03/18/11; Final permit issued 09/15/11

RAP Presentation

Regulatory Assistance Project (RAP)



**Building Bridges
between Environmental Regulators
(State and Federal)
and Utility Regulators**

Presented by
Ken Colburn and John Shenot

July 26, 2012 The Regulatory Assistance Project 20 State Street, Suite 2
Montpelier, VT 05602 Phone: 802-222-7100
Web: www.raponline.org

Introducing RAP

- RAP is a non-advocacy, non-profit organization providing technical and educational assistance to government officials on energy and environmental issues – *usually for free.*
- RAP Principals all have extensive utility or environmental regulatory experience.
- Focused programs in US, EU, China, and India.
- RAP is celebrating its 20th year.

Introducing Ken and John



- Ken Colburn is a RAP senior associate; previously he consulted with states, directed NESCAUM, and led NH's air program.



- John Shenot joined RAP in 2011 after serving as policy advisor to WI's PSC and as an air quality engineer for WI's DNR.

How Does RAP Assist Regulators?

- Research and Publications
- Training/Workshops/Webinars
- Tailored Advice and Assistance
- Regional/National Collaborative Efforts
- "Big Ideas" and Best Practices



Topics for Today

- Energy Efficiency (EE) and Renewable Energy (RE) as Air Quality Strategies
- Transmission Expansion to Support RE
- The Water/Energy Nexus
- Building Bridges between Environmental Regulators and Utility Regulators

EE/RE as Air Quality Strategies



Regional Haze



Glacier NP



Yellowstone NP



Badlands NP

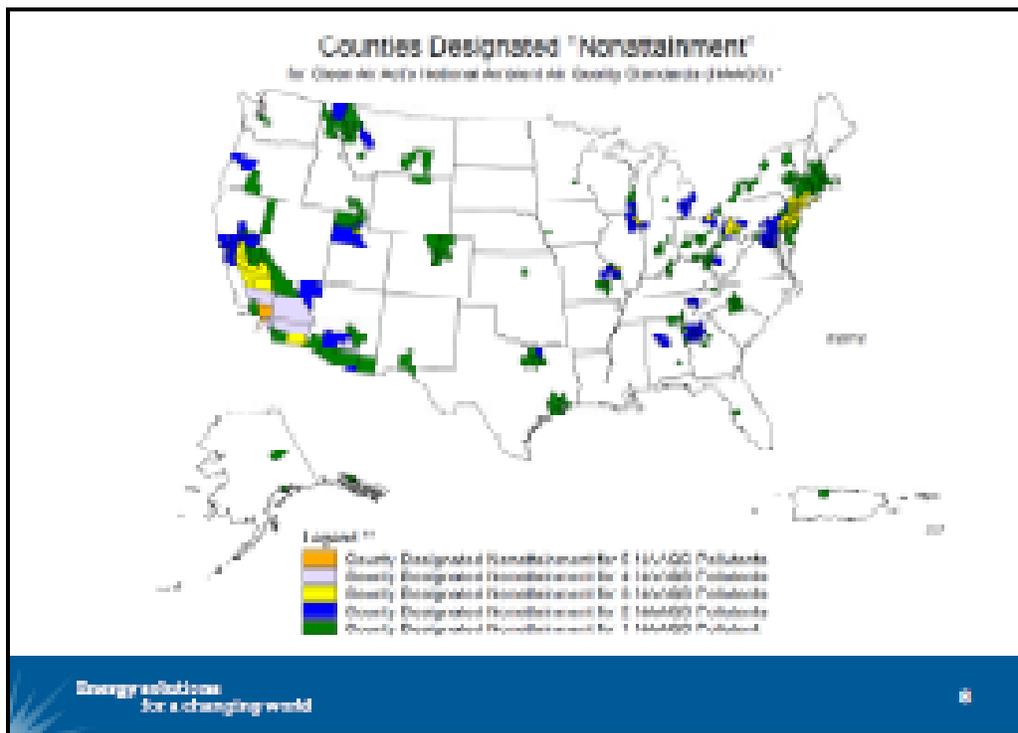


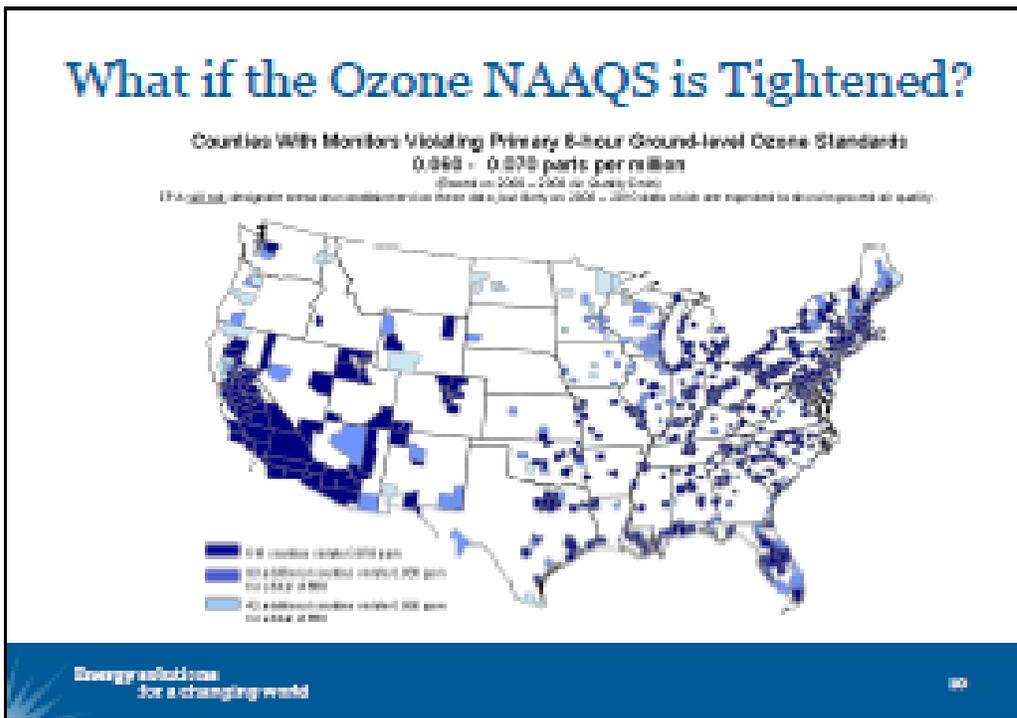
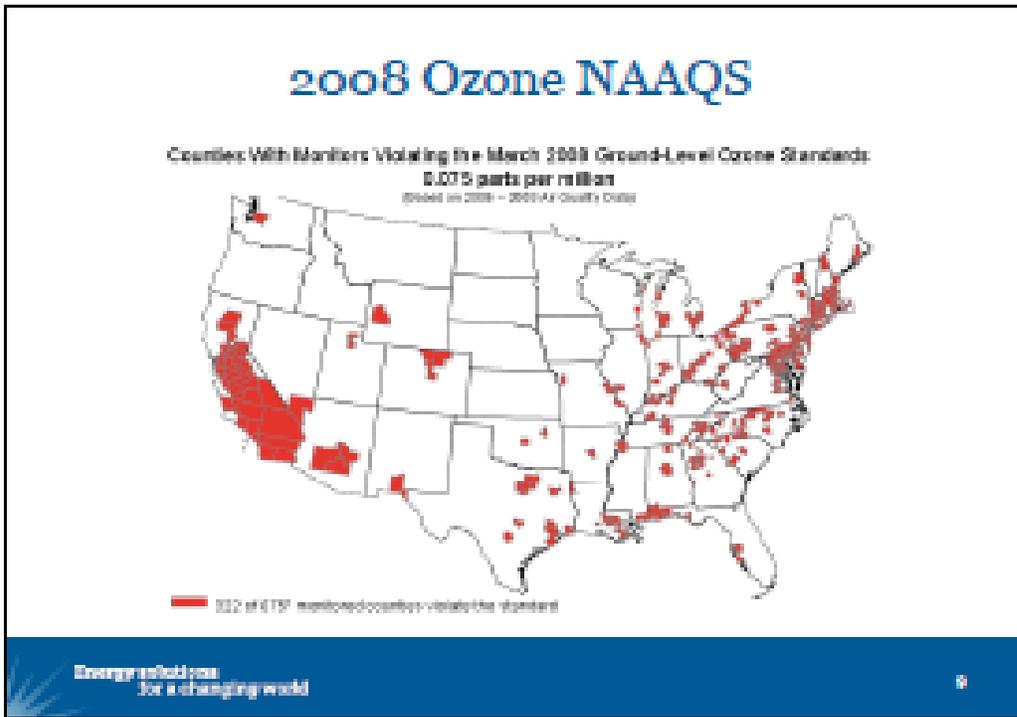
Bryce Canyon NP

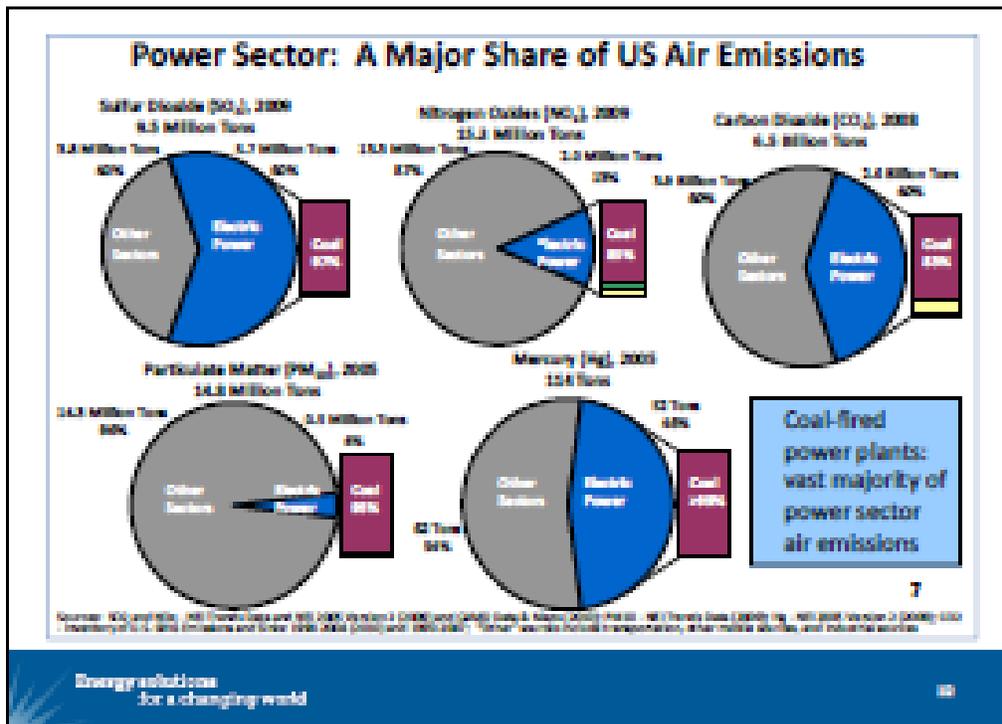
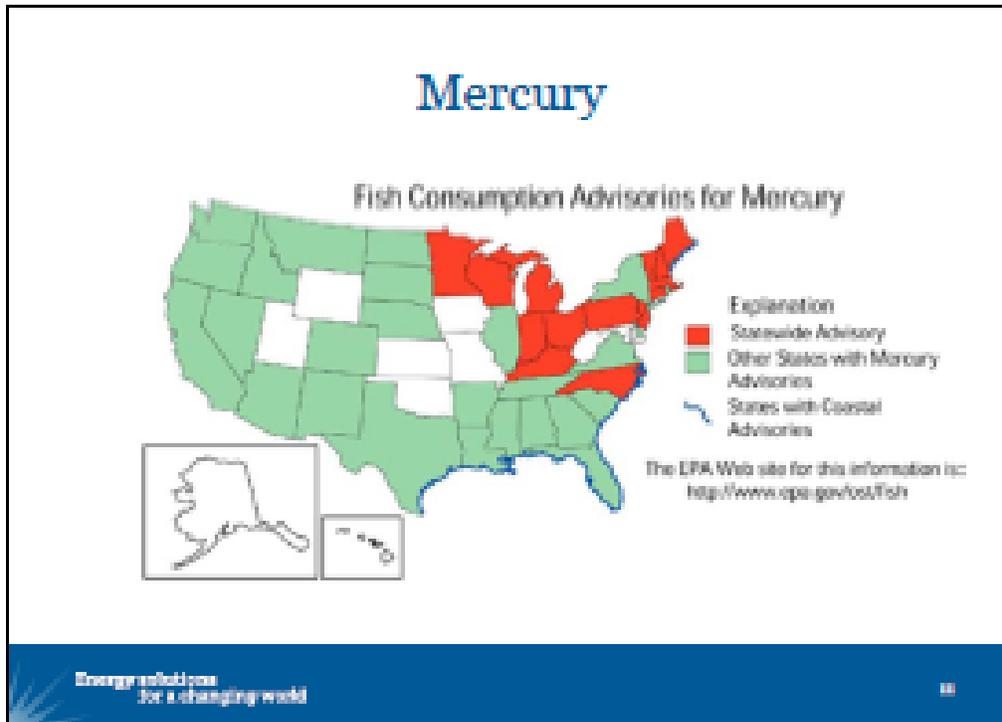


Rocky Mountain NP

Energy solutions for a changing world
7





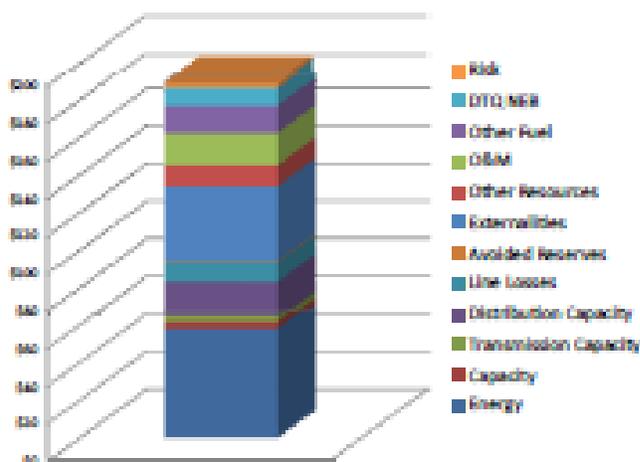


Energy Efficiency vs. Pollution Controls

- Both contribute to environmental quality and improved public health, but...
- **Energy efficiency (EE) is an investment**
 - More than pays for itself over time
 - Lowers overall system-wide costs of serving electric demand
 - Improves reliability
 - Provides co-benefits like reduced water consumption
- **Pollution controls are an expense**
 - Increases system-wide costs of serving electric demand
 - Provides few if any co-benefits

Multiple Benefits of EE

Vermont Energy Efficiency Savings Value
Updated Externality and NEB Values



Most analyses of EE are woefully incomplete:

- Some look only at avoided energy costs.
- Many include production capacity costs, but not transmission or distribution capacity, or line losses.
- Few include other resource savings (water, gas, oil).
- Very few make any effort to quantify non-energy benefits.

Recent RAP Publications (examples)

- *Preparing for EPA Regulations*
- *Incorporating Environmental Costs in Rates*
- *State Implementation Plans: What Are They and Why Do They Matter?*
- *Clean Energy Standards: State and Federal Policy Options and Implications*

Recent Training/Workshops/Webinars (examples)

- **For Northeast states:**
 - *EE and Air Quality*
 - *Characterizing RE and Its Benefits*
 - *Engaging With Your PUC*
- **For the Virginia DEQ (and PUC and SEO):**
 - *Incorporating EE in Air Quality Planning*
 - *Incorporating EE in Air Permits*
- **For EPA (OAQPS, Regions 6 & 10, etc.):**
 - *Electric Energy Training for Air Officials*
 - *EPA/S-L-T Electricity Generation-Environment Workshop*

RAP Technical Involvement in Regional/National Collaborative Efforts

- State Energy Efficiency Action Network
- Model Rule: Output-Based Emissions Standards for Distributed Generation
- Demand Response Initiatives
 - NEDRI, MADRI, MWDRI, PNDRP
 - National Forum on the National Action Plan
- Regional Greenhouse Gas Initiative

Big Ideas and Best Practices (examples)

- Avoiding non-attainment designations and the endless “do loop” of SIPs
- Multi-pollutant planning
- “Top down tons”
- Clean Energy Standards
- Properly valuing EE
- Risk-aware electricity regulation
- “Decoupling”, “Net Demand”

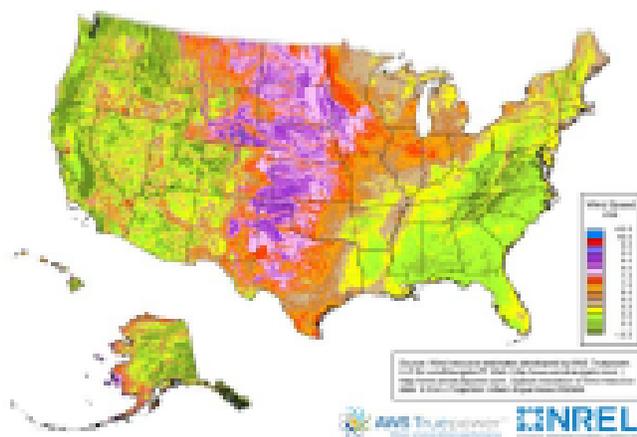
Transmission Expansion to Support RE



Energy solutions
for a changing world

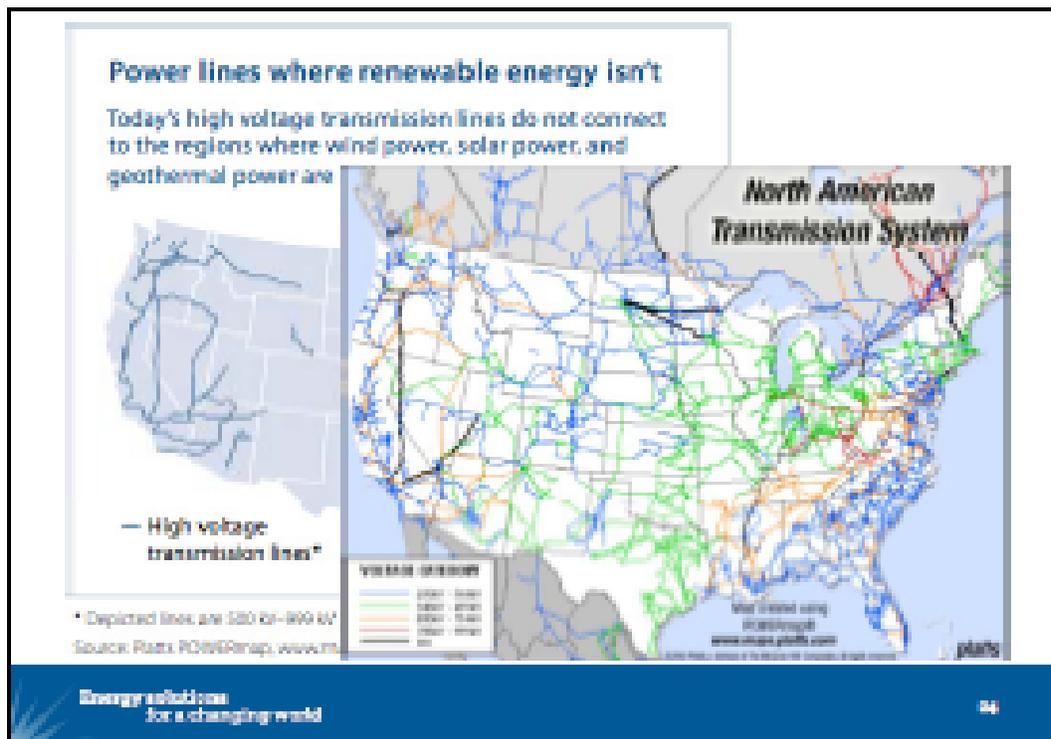
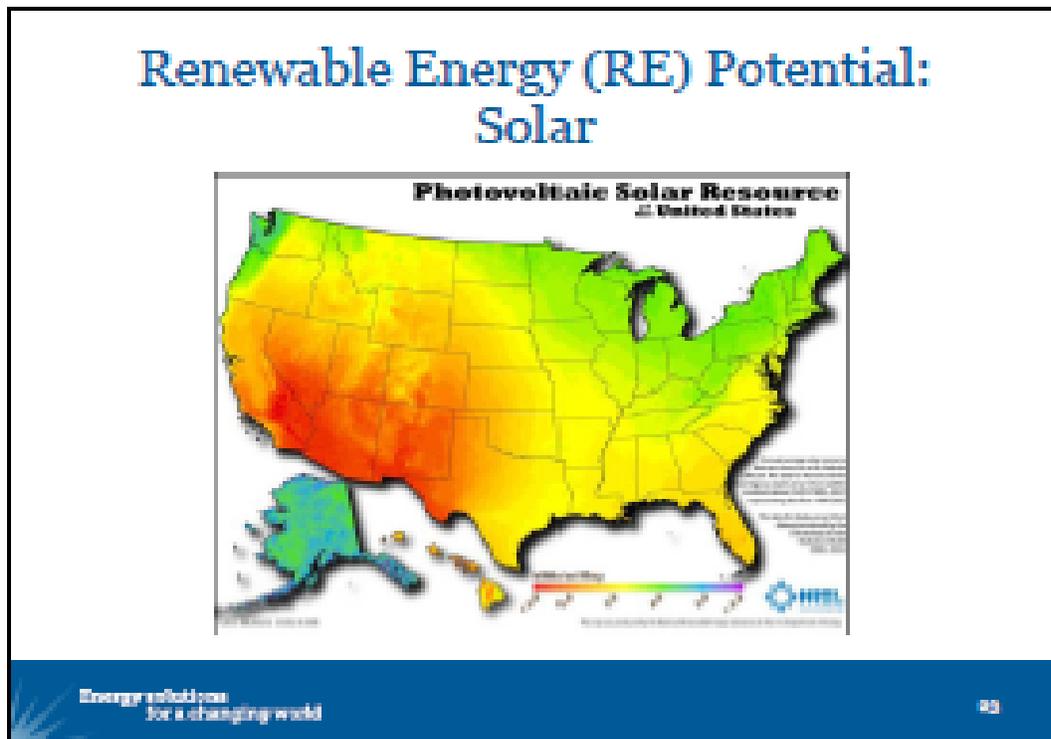
24

Renewable Energy (RE) Potential: Wind



Energy solutions
for a changing world

25



Transmission Studies

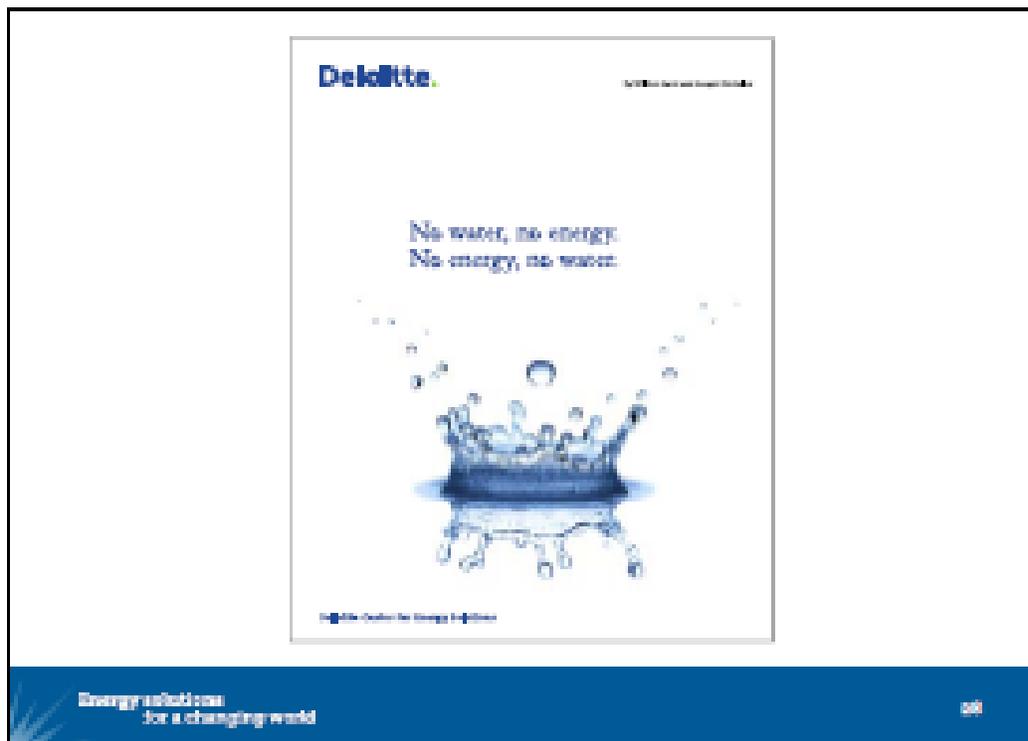
- Numerous studies indicate more transmission capacity is needed to move renewable energy from Region 8 states to load centers, e.g.,:
 - WECC 10-Year Regional Transmission Plan
 - MISO Regional Generation Outlet Study
- WECC also published a helpful report on *Environmental Recommendations for Transmission Planning*

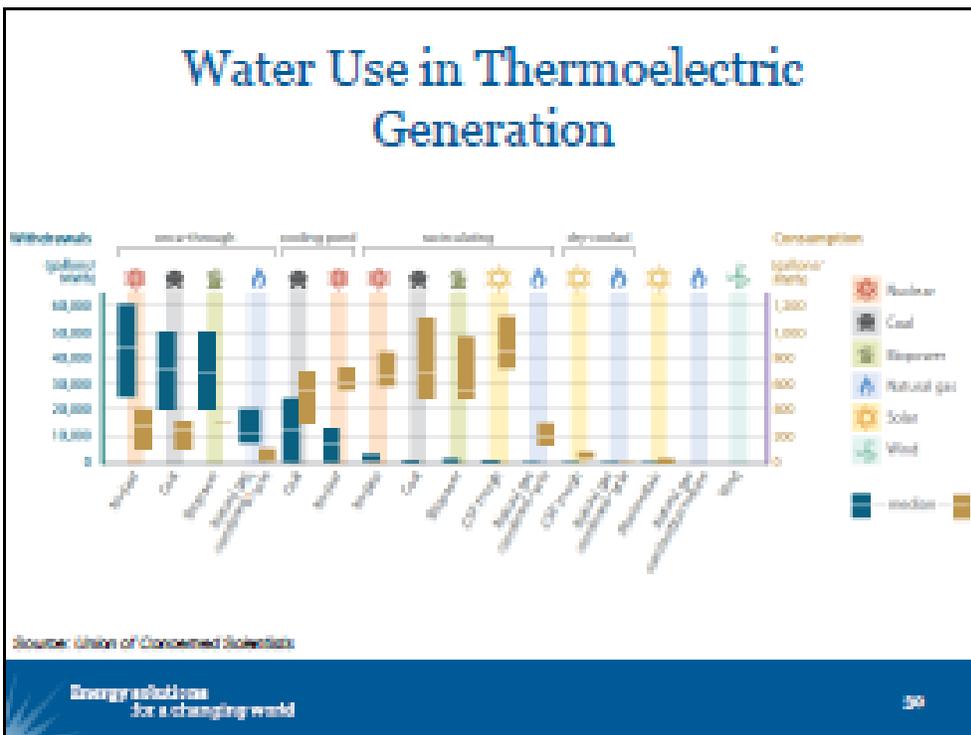
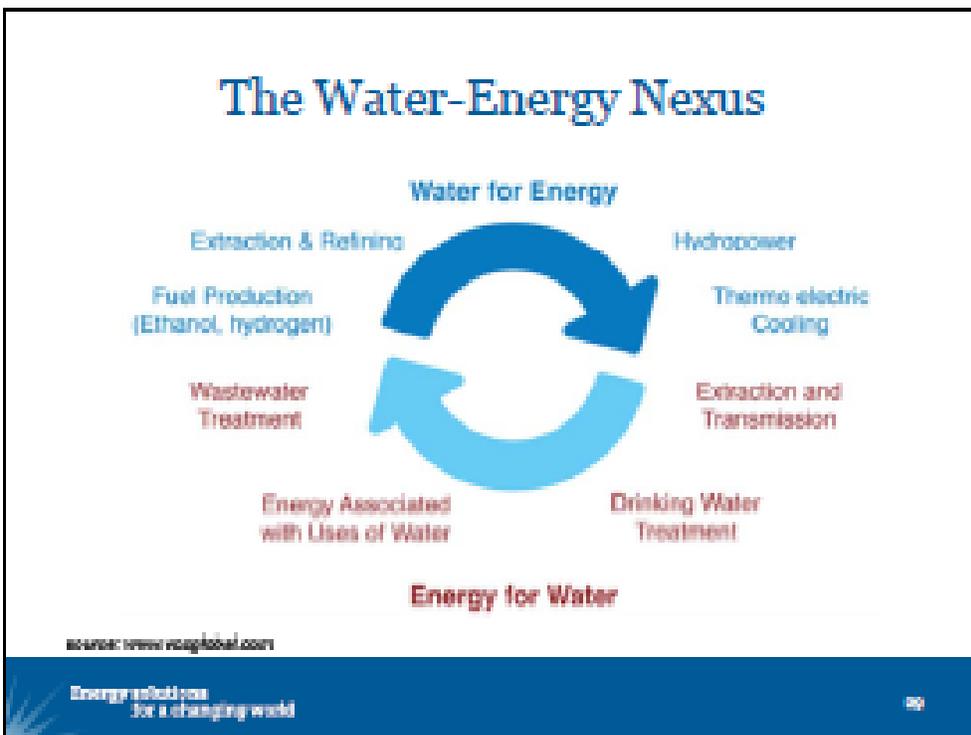
Recent RAP Publications (examples)

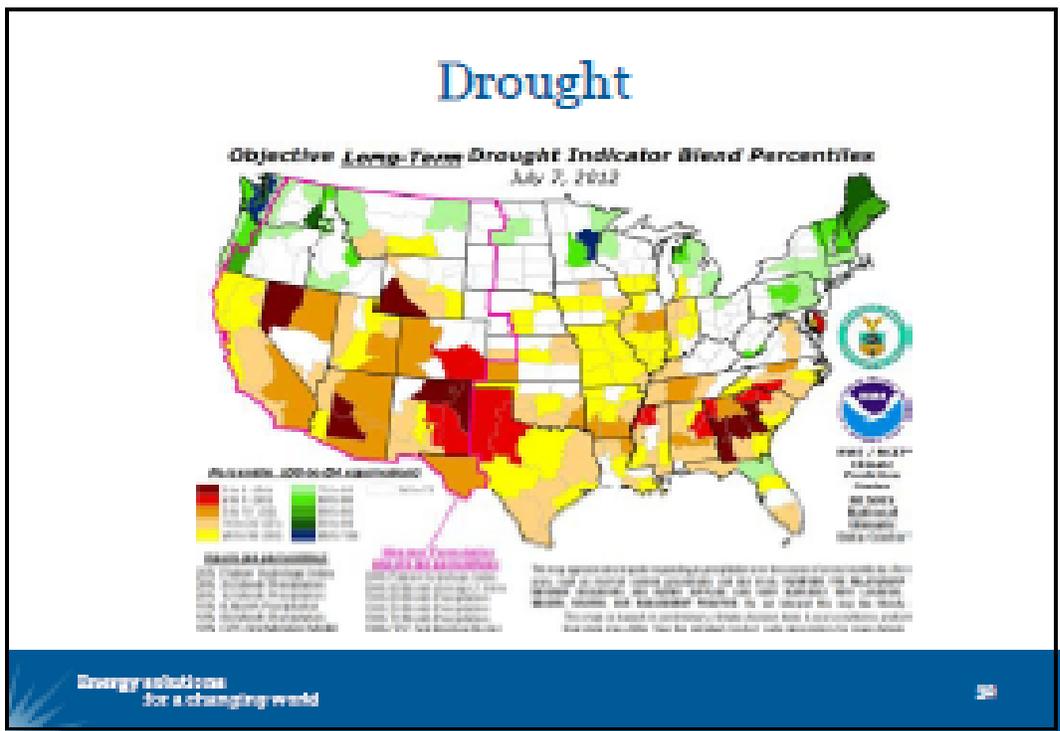
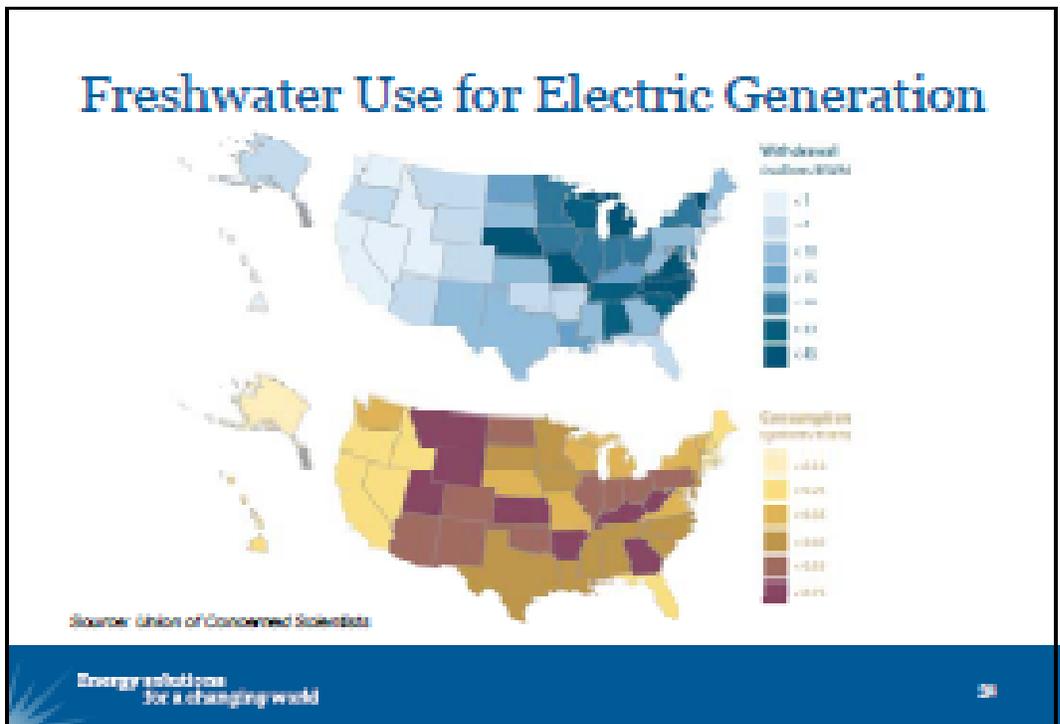
- *Meeting Renewable Energy Targets in the West at Least Cost: The Integration Challenge*
- *Renewable Resources and Transmission in the West: Interviews on the Western Renewable Energy Zones (WREZ) Initiative*
- *Clean First: Aligning Power Sector Regulation with Environmental and Climate Goals*

RAP Involvement in Regional/National Collaborative Efforts

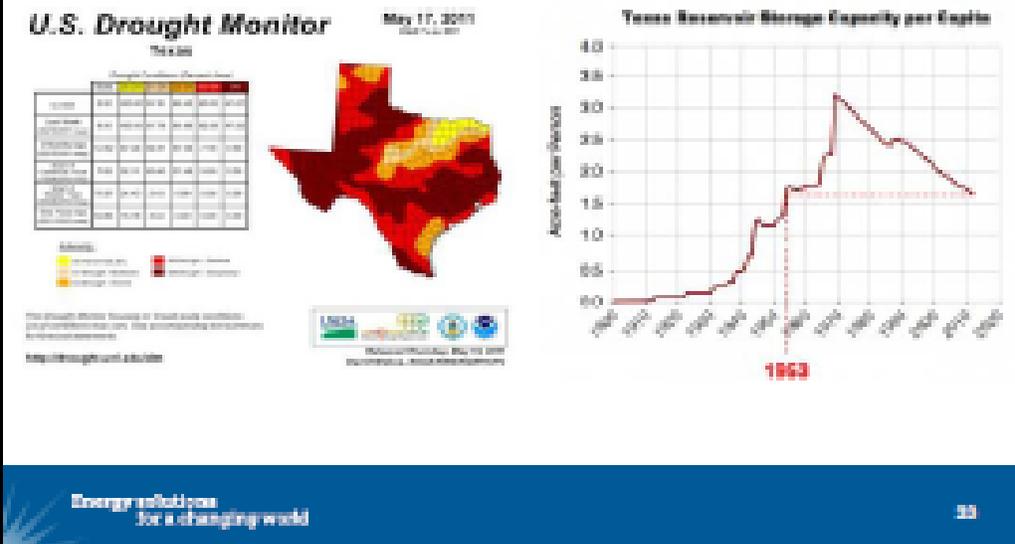
- DOE Electricity Advisory Committee
- Western Governors Association's Western Renewable Energy Zones (WREZ) Initiative
- Western Electric Coordinating Council's (WECC) Transmission Expansion Planning Policy Committee (TEPPC)
- Western Resource Planners Forum







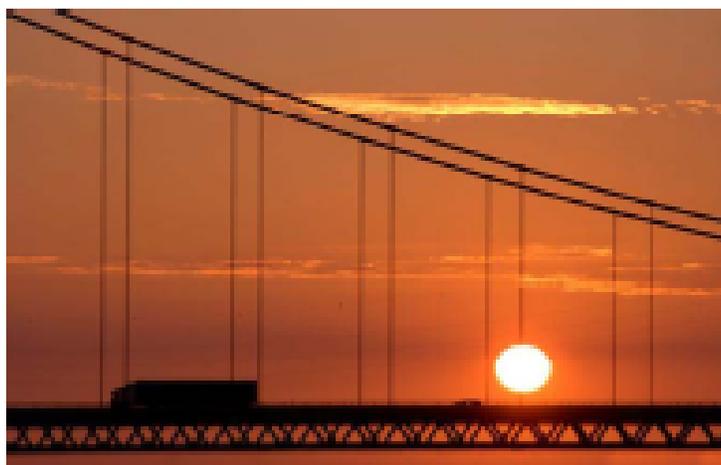
Example: Texas



Why Care About the Water-Energy Nexus?

- 0.5-4 gal/kWh consumption; 9-19% of electric load (to produce, transport & treat)
- A risk and resource allocation issue
- Impacts which energy scenarios we can adopt in the future (including some RE)
- Water constraints not always included in energy planning processes
- Water prices are low – water as a resource is not always valued
- A major opportunity for synergistic gain

Building Bridges



Promoting Mutual Understanding and Collaboration

- **Publications:**
 - *Electricity Regulation in the U.S.: A Guide*
 - *State Implementation Plans: What Are They and Why Do They Matter?*
- **Webinars:**
 - *Engaging With Your PUC*
 - *Introduction to the Electric Power Sector for Air Quality Regulators* (multiple audiences)

Tailored Advice and Assistance

- RAP responds to requests from state regulators, often addressing an immediate need or challenge
- Can be public or confidential
- Short-term/limited scope projects can often be completed at no cost to the state
- For longer-term/more involved projects, we work with states to find resources

Possible Workshops for Region 8 States?

- Similar workshops as for other states:
 - Introduction to the Electric Power Sector for Air Quality Regulators
 - Engaging Your PUC
- Using EPA's new *Roadmap Manual for Incorporating EE/RE Policies and Programs in SIPs/TIPs*
- Water-Energy Nexus

Possible Workshops for Region 8 States? (continued)

- Accounting for environmental costs and externalities in EE cost-effectiveness tests
- Considering water availability in utility "integrated resource plans"
- Incorporating environmental policy in transmission planning under FERC Order 1000



About RAP

The Regulatory Assistance Project (RAP) is a global, non-profit team of experts that focuses on the long-term economic and environmental sustainability of the power and natural gas sectors. RAP has deep expertise in regulatory and market policies that:

- Promote economic efficiency
- Protect the environment
- Ensure system reliability
- Allocate system benefits fairly among all consumers

Learn more about RAP at www.raonline.org

Ken Colburn: kcolburn@raonline.org

John Shenot: jshenot@raonline.org



Global	The Regulatory Assistance Project	50 State Street, Suite 3	phone: 802-223-8199	www.raonline.org
US		Montpelier, Vermont 05602	fax: 802-223-8172	
China				
EU				

RAP Presentation



John Shenot

Associate

50 State Street, Suite 3

Montpelier, VT 05602

Tel: 802-498-0728

Fax: 802-223-8172

jshenot@raponline.org

John Shenot joined RAP after serving for three years as policy advisor to the Public Service Commission of Wisconsin. He contributed to numerous commission investigations of energy efficiency, renewable energy and climate change topics.

Previously, Mr. Shenot spent 15 years with the Wisconsin Department of Natural Resources as an air pollution regulator and electric utility specialist. In 2004 and 2005, as part of an Atlantic Fellowship in Public Policy, he collaborated with regulators at the Environment Agency in Bristol, England on innovative approaches to environmental regulation.

Mr. Shenot received his BS in engineering from the University of Maryland and his MS in resource policy from the University of Michigan.

RAP Presentation



Ken Colburn

Senior Associate
50 State Street, Suite 3
Montpelier, VT 05602
Tel: 802-498-0729
Fax: 802-223-8172
[*kcolburn@raponline.org*](mailto:kcolburn@raponline.org)

Ken Colburn came to RAP from Symbiotic Strategies, a consultancy he established in 2005. His efforts focused on climate, energy, air quality, environmental policy, and the juxtaposition of economic and environmental opportunity for state clients engaged in the development of climate mitigation and adaptation plans, progressive businesses, and major foundations. Mr. Colburn previously served as executive director of the Northeast States for Coordinated Air Use Management (NESCAUM). Under his direction, NESCAUM conceived and funded a comprehensive modeling approach integrating air quality, energy, economic, and public health in order to improve public policy development.

Prior to his work with NESCAUM, Mr. Colburn was director of the Air Resources Division of the NH Department of Environmental Services, where he also led state climate efforts for the National Association of Clean Air Agencies (NACAA), representing U.S. states at Kyoto and numerous subsequent meetings of the U.N. Framework Convention on Climate Change. He also held management and policy positions within NH's business community. Mr. Colburn is based in Meredith, NH and holds a BS in mathematics from M.I.T. and an MBA from the University of New Hampshire.

**Update on EPA draft
UIC Permitting Guidance for Oil and Gas
Hydraulic Fracturing Activities Using
Diesel Fuels**

Region 8 State Director's Meeting
July 25 - 26, 2012

1

Background



Guidance Structure

- Applies to EPA UIC direct implementation programs
- Describes current Class II oil and gas injection requirements under SDWA and UIC regulations
- Provides a description of "diesel fuels" for the purposes of UIC Program implementation where EPA is the permit authority
- Provides recommendations for EPA permit writers for tailoring requirements to HF with diesel fuels (DFHF)

2

MAEP Presentation

Janice Swartz Wilford – Bio

*MAEAP Program Manager
Michigan Department of Agriculture & Rural Development
PO Box 30017
Lansing, MI 48917
Phone: (517) 241-4730
Email: WilfordJ9@michigan.gov*

Jan Wilford brought a diverse agricultural background with her as the program manager for the Michigan Agriculture Environmental Assurance Program (MAEAP) for the Michigan Department of Agriculture and Rural Development (MDARD). She has worked with vegetable growers and the greenhouse industry; coordinated a three county Integrated Pest Management Program with Michigan State University (MSU) Extension; and was a 'hired man' on a 7,000 head swine operation.

Before coming to MDARD, Jan was employed with Michigan Farm Bureau for 12 years in areas that included leadership development and program management. Her undergrad degree is from MSU. She also has a Masters of Management (MBA) from Aquinas University.

Jan is committed to working with agriculture to help farmers develop the tools they need to increase their natural resource management skills and to ensure their ability to remain as stewards of the land.

James (Jim) Johnson – Bio

*Environmental Stewardship Division Director
Michigan Department of Agriculture & Rural Development
PO Box 30017
Lansing, MI 48917
Phone: (517) 335-3400
Email: JohnsonJ9@michigan.gov*

Jim Johnson is the Director of the Environmental Stewardship Division (ESD) of the Michigan Department of Agriculture and Rural Development (MDARD). Jim's responsibilities include overseeing numerous proactive environmentally focused programs including the Michigan Agriculture Environmental Assurance Program, the Conservation Reserve Enhancement Program, Right to Farm, and Michigan's 79 conservation districts. In addition, ESD is responsible for farmland preservation, inspection of migrant housing, and drainage infrastructure through the Intercounty Drains Program.

Jim is a graduate of Michigan Technological University and began his agricultural career working with growers in St Joseph County on irrigation water management; moved to Lansing to work for the MDARD with conservation districts; managed the Department's Gypsy Moth Program; then moved to ESD to manage the Pollution Prevention Section. Jim was appointed Director of ESD in August of 2008.

MAEP Presentation

Michigan Agriculture Environmental Assurance Program presentation



Michigan Agriculture Environmental Assurance Program

Michigan Agriculture Protecting the Environment

USEPA Region VIII
State Director's Meeting
July 26, 2012

Jim Johnson, ESD Division Director
Jan Wilford, MAEAP Manager
Michigan Department of Agriculture & Rural Development

MAEAP.org



Michigan Agriculture Environmental Assurance Program



Michigan Agriculture Protecting the Environment

Partnership

- Farmers
- Industry Groups
- Conservation
- Agency
- University

- Implemented by MDARD with consultation from the MAEAP Advisory Council
- All farm types – all sizes

Why MAEAP?



MAEAP verified farms keep their land, water and air as healthy as the food they produce.

They represent the highest standards of environmental stewardship and the pinnacle of responsible agriculture.

MAEAP farms are required to go through a rigorous review by the Michigan Department of Agriculture and Rural Development every three years to ensure they are in compliance with MAEAP Standards.

MAEP Presentation



Michigan Agriculture Environmental Assurance Program

MAEAP

Michigan Agriculture Protecting the Environment

Our Mission

- To develop and implement a proactive environmental assurance program that targets all size Michigan farms and all commodities, ensuring that farmers are engaging in cost effective pollution prevention practices and working to comply with state and federal environmental regulations.
- ...Facilitating success and long term sustainability.



Michigan Agriculture Environmental Assurance Program

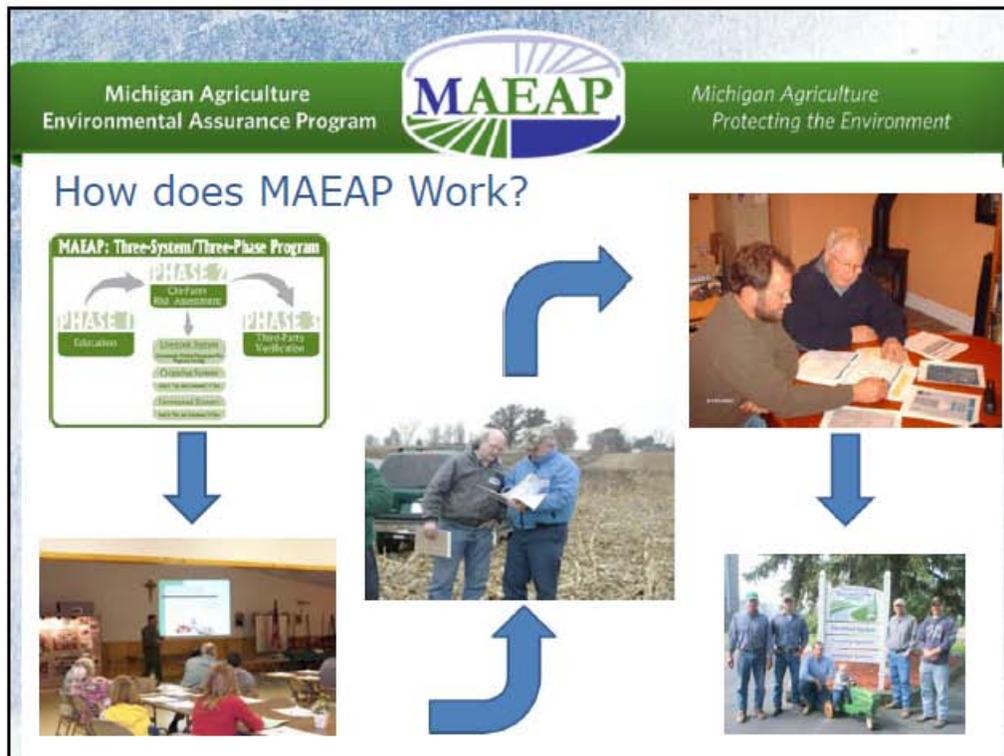
MAEAP

Michigan Agriculture Protecting the Environment



Over 50 Partners...

MAEAP Presentation



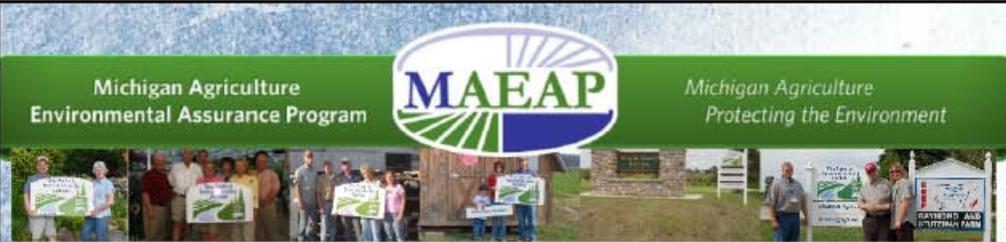
MAEP Presentation



PA 2, 2011

MAEP codified in law

- Standards
- Advisory Council
- Ag Commission Role
- Regional Assurance Teams
- MOU with MDEQ
- Water Quality Monitoring and more.

Why do farmers participate?

Incentives in law (PA 1, 2011)

- Accidental discharge – No fines & penalties. (responsibility for notification/resource damage).
- TMDL – Farms verified in all applicable systems considered as meeting all required practices.
- Verified farms following standards & receiving defined rainfall with discharge considered nonpoint source discharge. Corrective action to avoid future discharge.

MAEAP Presentation



Why do farmers participate?

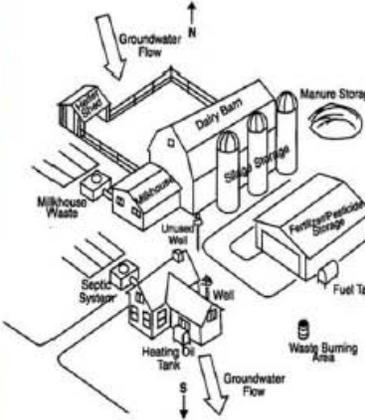
- Environmental concern
- Marketing opportunities
- Good neighbor
- Legislated incentives (PA 1, 2011)
- Peace of mind/right thing to do
- Access to cost-share and incentive payments
- RUP credits
- Liability/Ins \$ Reduction
- RTF protection
- GAP audit assistance
- Follow State and Federal laws
- Improved Management
 - Plan for long term
 - Ahead of curve
 - Learn & improve
 - Recognition



What does MAEAP do?







The diagram illustrates a farm layout with the following components: Milkhouse, Dairy Barn, Manure Storage, Fertilizer/Pesticide Storage, Fuel Tank, Waste Burning Area, Heating Oil Tank, Well, Unlined Well, Septic System, and Milkhouse Waste. Arrows indicate 'Groundwater Flow' moving from the top-left towards the bottom-right, and another arrow pointing downwards from the bottom-right area.

MAEP Presentation



Michigan Agriculture Environmental Assurance Program

MAEAP

Michigan Agriculture Protecting the Environment

MAEAP farms have addressed

- Chemical storage and use
- Fuel storage
- Well safety
- Sensitive areas
- Water resources
- Soil erosion
- All related RTF GAAMP's & Environmental laws
- And more...

MAEAP Facts: Phosphorus & Nitrogen reduced on MAEAP farms could have grown enough algae to cover over 85% of Higgins Lake at approx. ¼ " in depth. (Higgins Lake is the 11th largest lake in Michigan)




MAEAP Presentation



Michigan Agriculture Environmental Assurance Program

MAEAP

Michigan Agriculture Protecting the Environment

Environmental Gains

- Currently over 10,000 farms participating with over 1,000 verifications.
- Sediment reduction – Over 200,000 tons per year or 18,164 - 10 yard dump trucks.
- Verified nutrient management plans in place on over half a million acres of MI farmland.
- Phosphorus reduction to surface water over 340,000# per year
- Nitrogen reduction to surface water almost 750,000# per year



Michigan Agriculture Environmental Assurance Program

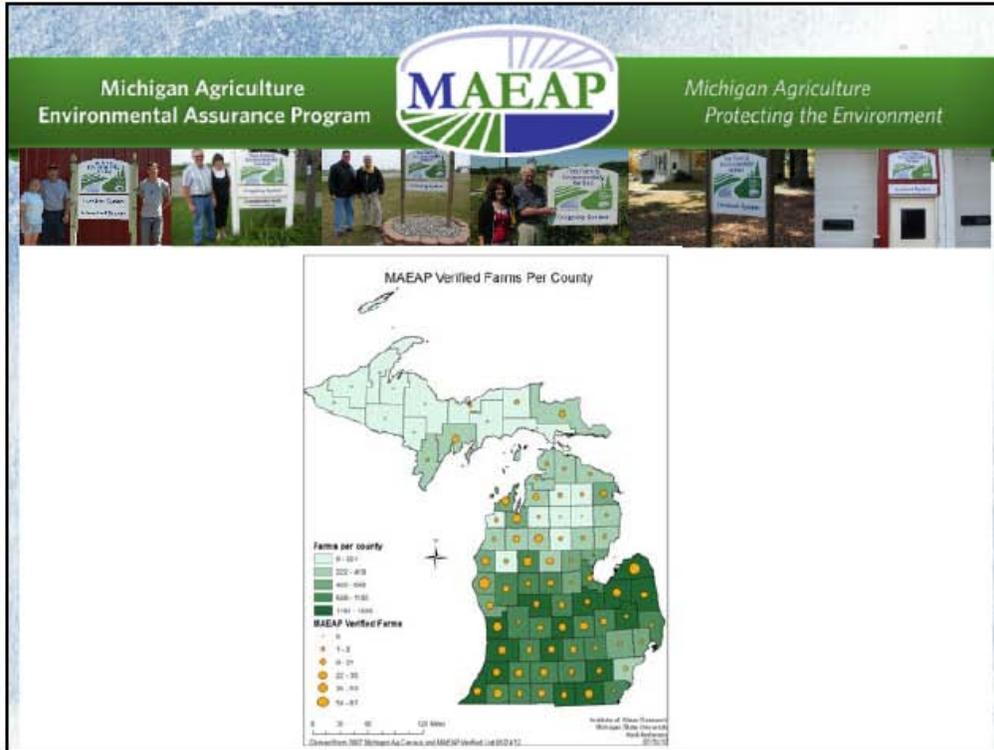
MAEAP

Michigan Agriculture Protecting the Environment

MAEAP Stewardship Practices

- Over 240,000 acres receiving pesticides have approved pest management plans.
- Almost 6,000 acres of filter strips have been installed.
- Almost 1,300 gullies have been stabilized, improving water quality.
- Annually, over \$1.2 million is spent for practice implementation by farmers working toward MAEAP verification.

MAEP Presentation



Michigan Agriculture Environmental Assurance Program | MAEP | Michigan Agriculture Protecting the Environment

USEPA Region 5 Partnership

- Applauds Michigan's effort to implement MAEP to complement Michigan's NPDES program.
- Appreciates reduced pollution for cropping system and small and medium livestock operations.
- Will continue to support MAEP.
- Continues to assess the impact of 2011 legislation on Michigan's NPDES program.

Susan Hedman
Regional Administrator, Region 5
March 27, 2012

MAEP Presentation



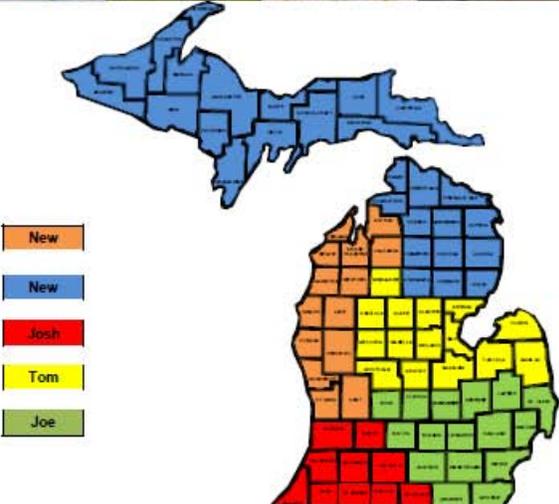
MAEAP Funding FY13

\$1M -

- 12 new FTEs to Conservation Districts
- 2 new MAEAP verifiers
- 1 new MAEAP engineer
- ½ additional administrative support

In addition, \$2.4M+ to Conservation Districts for technical assistance grants through the Groundwater Fund (GWF).

GWF is established through fees collected under part 87, Michigan Natural Resources & Environmental Protection Act.

	New
	New
	Josh
	Tom
	Joe

MAEP Presentation

Michigan Agriculture Environmental Assurance Program
Michigan Agriculture Protecting the Environment

1	Alcona CD	19	Kent CD
2	Alegan CD	20	Lapeer CD
3	Bay CD	21	Lansing CD
4	Berrien CD	22	Mason-Lake CD
5	Branch CD	23	Macatawa CD
6	Calhoun CD	24	Missaukee CD
7	Cass CD	25	Monroe CD
8	Charlevoix CD	26	Newaygo CD
9	Chipp-East Mack CD	27	Oceana CD
10	Clinton CD	28	Ogemaw CD
11	Delta CD	29	Oscoda - Lake CD
12	Eaton CD	30	Ottawa CD
13	Grand Traverse CD 2 FTEs	31	Sanilac CD
14	Hillsdale CD	32	Shiawassee CD 2 FTEs
15	Huron CD	33	Tuscola CD
16	Ionia CD	34	Van Buren CD
17	Isabella CD SE MI Greenhouses Jackson CD		
18	Kalamazoo CD		

Michigan Agriculture Environmental Assurance Program
Michigan Agriculture Protecting the Environment

Local Stewards of the Land

Involvement

MICHIGAN WINERIES GROW GREEN WITH MAEAP

By Janice Wilford

Beneath the seeming peacefulness of many Michigan vineyards is an abundance of environmental activity. Farmers have long been regarded as stewards of the land. However, their modern role as caretakers has changed, and life at Michigan's vineyards and wineries is under transformation.

family has always strived to make the land better and more productive. MAEAP verification lets us know we are doing what we can to manage our farm and our land as best we can."

In addition to robust educational requirements, growers are required to work with trained technicians through local conservation districts to establish environmental goals and address identified risks. Following completion of a farm-specific risk assessment and implementing any required corrective actions, farmers may request a third-party objective review by the MDA. The MDA verifies that educational and risk assessment requirements have been met, that the farm is in conformance with Michigan's Right to Farm Generally Accepted Practices and that the practices in place adequately address environmental risks. The farm is then "verified," and the farmer is eligible to purchase a sign to communicate this outstanding accomplishment to the community and to consumers. To maintain certification, the farmer must attend an educational session, update the farm plan, and be subject to an on-site visit every three years.

And the result? MAEAP-verified vineyards have proven they use sound environmental practices to protect natural resources and build

MAEP Presentation

Michigan Agriculture
Environmental Assurance Program
Michigan Agriculture
Protecting the Environment

Community Awareness

Ford's Cherry Hill farm honored for reducing agricultural pollution

BY MICHAEL MARTINEZ, THE DETROIT NEWS | 4 COMMUNITY



Superior Township— Tuesday wasn't your average day on the farm for Al Vanhasthosova.

But then again, Cherry Hill is no run-of-the-mill farm.

"I could be out taking hay, but taking hay isn't as important as this," Vanhasthosova said, pointing to the storage of guests outside the farm's shop for a pig roast. "This is very out of the norm."

The pig roast — Vanhasthosova's idea — was a nice way to celebrate earning state honors for efforts to reduce farm pollution. The road also was a fitting gesture. Such a community-building meal would have pleased the property's original owner, Henry Ford.



Ken Sparks said it is important that his farm address the most current good environmental practices. "The best part is the sense of accomplishment that neighbors can see and say: 'hey, they must be taking this farming thing seriously.'"

MAEAP verifies Sparks farm

By John Eby
LATEST STORIES

Published 10:53pm Tuesday, April 17, 2012

[Email](#)
[Print](#)
[Facebook](#)
[Twitter](#)
[LinkedIn](#)

CASSOPOLIS — Ken Sparks of Sparks Cedarlee Farm recently received the Farmstead certification in the Michigan Agriculture Environmental Assurance Program (MAEAP). Sparks Cedarlee Farm consists of 1,200 acres of cash crops and a 230-cow pasture-based dairy.

MAEAP is a program that helps farms of all sizes and all commodities voluntarily prevent or minimize agriculture pollution risks. It teaches farmers how to identify and prevent environmental risks and to comply with state and federal environmental regulations. It is a collaborative effort of producers, Michigan Department of Agriculture.

Michigan Agriculture
Environmental Assurance Program
Michigan Agriculture
Protecting the Environment



MAEAP Verified Farms in Farm Market Promotions

A sign of integrity.

MAEAP-verified farms keep their land, water and air as healthy as the food they produce. They represent the highest standards of environmental stewardship and the promise of responsible agriculture.



Look for MAEAP signs at the local farms and markets you visit, and talk with the farmers. They're experts at producing safe, healthy, nutritious foods for you and your family, while caring for the environment that makes their livelihood possible.



Michigan Agriculture
Environmental Assurance
Program
www.maep.org

MAEP Presentation



MAX Portal Presentation

MAX Portal Presentation



MAX.gov

Cloud Services Capabilities

Sponsored by the Budget Formulation and Execution
Line of Business (BFELoB)



Government-wide Scope (including Non-federal Partners)



EPA Region 8 MAX Portal Enclave

- Designed for active Collaboration (with Staff and Stakeholders)
- Allows for enhanced communication and coordination
- Reduce duplicative actions with regard to documents (PPAs, Midyear actions, State Profiles, etc)
- Technical support: every day of the week
- Web-based collaboration site, short learning curve
- FISMA(Federal Information Security Management Act) compliant
- Cost to use the tools is covered by OMB, i.e., already funded

MAX Federal Community - including NON-FEDERAL Partners

Home Find Help Feedback Welcome Anthony Log Out

ENVIRONMENTAL PROTECTION AGENCY-EXTERNAL

EPA Region 8 State Partnerships

RESTRICTED

Environmental Protection Agency-External Home EPA Region 8 State Partnerships (15)

Edited By Anthony DeLoach(EPA) on Jul 23, 2012 at 11:57 AM

Edit Add Favorites Share Watchers (2)

PAGE TREE

Home South Dakota North Dakota Montana Utah Wyoming Colorado

Welcome to the EPA Region 8 State Partnerships Collaboration Area. This tool was designed to enhance

EPA Region 8 Enclave "Navigation Page"

- **Communication**
- **Coordination and**
- **Collaboration**

with EPA, States and Other Stakeholders.

You can *watch* this page for changes by clicking on the envelope icon in the upper right.

Watch this entire "family of pages" area by clicking on the stacked envelope icon

Total number of views: 1043

• [Key Milestones for the FY 2013 NPM Guidance Process and FY 2012 Reporting](#)

MAX Portal Presentation

PPA activities

Collaboration Information						
Type	Name	Size	Creator/Modifier	Date	Comment	
	TMS_Comments_on_MT_Draft PPA for 2013.docx	12 kB	Anthony DeLoach(EPA)	Jul 12, 2012		Options
	OPRA_Comments_on_MT_Draft PPA for 2013.docx	12 kB	Anthony DeLoach(EPA)	Jul 12, 2012		Options
	EPR_Comments_on_MT_Draft PPA for 2013.docx	12 kB	Anthony DeLoach(EPA)	Jul 12, 2012		Options
	ECEJ_Comments_on_MT_Draft PPA for 2013.docx	12 kB	Anthony DeLoach(EPA)	Jul 12, 2012		Options
	MTPPA_2013Draft_with state track changes.docx	172 kB	Carson Coate(EPA)	Jul 03, 2012		Options
	MTPPA_2013Draft.docx	145 kB	Carson Coate(EPA)	Jul 03, 2012		Options

If the Draft is being edited and you can't wait to write your comments please write your

National Nonpoint Source Study and the General Accountability Office (GAO) Nonpoint Source Program Review

Background

Two separate reviews of the national nonpoint source (NPS) program were completed in FY12. The National Nonpoint Source Study, conducted by EPA, was completed in November 2011 and the GAO NPS Program Review was completed in May 2012 and released to the public in July 2012.

National NPS Study (conducted by EPA)

After negotiations with OMB over the president's FY12 budget proposal, EPA decided to conduct a study of the NPS program to help inform upcoming discussions with OMB regarding the FY13 budget. The study was designed to help the agency better understand program strengths and identify approaches for increasing program effectiveness and accountability.

The final study report, completed in November 2011, communicates a summary of program strengths and barriers to program effectiveness, and makes recommendations for program improvements. Some of these recommendations are being further evaluated by newly formed national work groups to ensure that the recommendations are implemented effectively.

In summary, the final report recommends that EPA should:

- Accelerate water quality improvements and restoration through greater program integration and timely implementation of nonpoint source (NPS) controls;
- Increase accountability through greater use of satisfactory progress reviews, improved measures, and updated NPS Management Program Plans;
- Continue to make progress in restoring specific waterbodies/watersheds while strengthening state approaches that can achieve more rapid improvement on a broad (geographic or categorical) scale;

- Increase leveraging of Section 319 NPS funds with other federal, state, local, and private sector funding; and
- To the extent feasible, make changes beginning in FY12; in other cases, FY13.

GAO NPS Program Review

This review was requested by the House Committee on Transportation and Infrastructure and its Subcommittee on Water Resources and Environment. Principal reason for conducting the review was to identify ways to more effectively address nonpoint source pollution, which is the leading cause of impairments to the nation's waters. A final report from the GAO was released to the public in July 2012 <http://gao.gov/products/GAO-12-335>.

Significant findings identified by the GAO include the following:

- Although state-selected projects to reduce nonpoint source pollution have helped restore more than 350 impaired waters since 2000, a number of others have encountered significant challenges. According to the GAO survey results, 28% of projects did not achieve all objectives originally identified in the project proposals, while many that did so still faced considerable challenges.
- The EPA's oversight and measures of effectiveness of states' programs have not consistently ensured the selection of projects most likely to yield measurable water quality outcomes.
- EPA has not provided its 10 regions with adequate guidance on how to oversee the state programs.
- NRCS national level data are not sufficiently detailed to identify whether appropriate measures are always in place to mitigate potential water quality impacts, especially in watersheds where EPA 319 funding is being used.

Three principal recommendations were identified by the GAO. EPA agreed with the recommendations, while USDA was silent on them. Recommendations include the following:

1. EPA should provide specific guidance to its 10 regional offices on how they are to fulfill their oversight responsibilities, such as how to review states' plans for project feasibility to ensure that funded projects have the greatest likelihood of effective implementation and tangible water quality results.
2. EPA should, in revising section 319 guidelines to states, emphasize measures that more accurately reflect the overall health of targeted water bodies (e.g., condition of living organisms).
3. USDA should direct NRCS to analyze available information from field offices to determine the extent to which appropriate mitigation measures are implemented when nutrient management plans are not in use, particularly in watersheds where states are spending section 319 funds.

Section 319 Program Reforms

As a result of both the National NPS Study and the GAO NPS Program Review, EPA is moving forward with the following reforms to the program:

1. Updating the NPS Management Plan Guidance and requesting states to update their NPS management program plans, with a goal of 50% of states updating plans by September 2013;
2. Updating the checklist for making satisfactory progress determinations to improve consistency and rigor in evaluations of states progress in implementing the 319 program;
3. Revising the 319 program funding structure placing greater emphasis on implementing watershed-based plans;
4. Revising 319 grant guidelines to emphasize the importance of priority setting and targeting projects that will achieve the greatest results;
5. Evaluating options to provide better tracking and reporting and consider additional measures to evaluate program success.

Time-line for 319 Program Reforms/Opportunities for State Comment

July 25

ACWA Facilitated call with States on 319 Reforms

Aug 13`	ACWA Annual Meeting - 319 session
Sept/Oct	Draft 319 guidelines shared with states for review
Nov 30	Issue final 319 grant guidelines
TBD	FY13 satisfactory progress determination guidance