

University of Colorado Law School

Colorado Law Scholarly Commons

Shale Plays in the Intermountain West: Legal
and Policy Issues (November 12)

2010

11-12-2010

SLIDES: Shale and Air Quality: The View from the Other Side

Jeremy Nichols

Follow this and additional works at: <https://scholar.law.colorado.edu/shale-plays-in-intermountain-west>



Part of the Climate Commons, Energy and Utilities Law Commons, Energy Policy Commons, Environmental Health and Protection Commons, Environmental Law Commons, Environmental Policy Commons, Hydraulic Engineering Commons, Natural Resource Economics Commons, Natural Resources and Conservation Commons, Natural Resources Law Commons, Natural Resources Management and Policy Commons, Oil, Gas, and Energy Commons, Oil, Gas, and Mineral Law Commons, Science and Technology Law Commons, State and Local Government Law Commons, Sustainability Commons, Water Law Commons, and the Water Resource Management Commons

Citation Information

Nichols, Jeremy, "SLIDES: Shale and Air Quality: The View from the Other Side" (2010). *Shale Plays in the Intermountain West: Legal and Policy Issues (November 12)*.
<https://scholar.law.colorado.edu/shale-plays-in-intermountain-west/10>

Reproduced with permission of the Getches-Wilkinson Center for Natural Resources, Energy, and the Environment (formerly the Natural Resources Law Center) at the University of Colorado Law School.

Shale and Air Quality: *The View from the Other Side*



Niobrara shale oil gusher near Cheyenne, WY.

Why do we Care?

- **Oil and gas development impacts air quality.**
- **Oil and gas development is occurring at an unprecedented scale.**
- **Development of shale plays promises increasing impacts on an even greater scale.**





Examples

- **Ozone, ozone precursors.**
- **Hazardous air pollutants.**
- **Greenhouse gases (methane and CO₂).**
- **Nitrogen dioxide, sulfur dioxide.**
- **Particulate matter.**



Recent Study

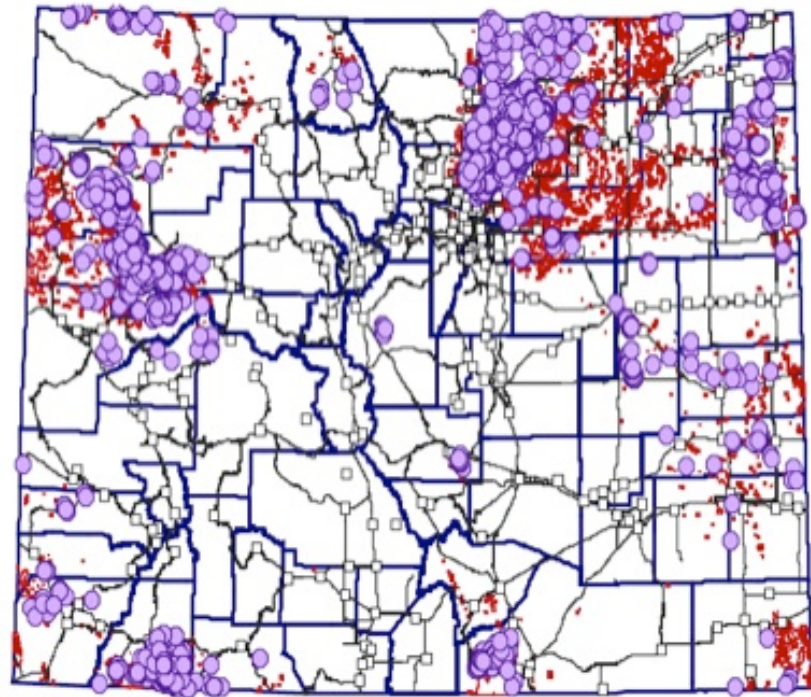
“...clear potential for oil and gas development to negatively affect regional [ozone] concentrations in the western United States, including several treasured national parks and wilderness areas in the Four Corners region.”

— Rodriguez, et al., “Regional Impacts of Oil and Gas Development on Ozone Formation in the Western United States,” *Journal of the Air and Waste Management Association*, Vol. 59, 1111-1118 (September 2009).

Colorado's Assessment of Oil and Gas Air Quality Impacts

- “Oil and Gas largest single sector for APCD
 - VOC Emissions
 - Air Permitting
 - Compliance/Enforcement
- Oil and Gas-related activities remain significant.”

RECENT COLORADO OIL AND GAS WELL PERMITS 08-06-10





Let's Cut to the Chase

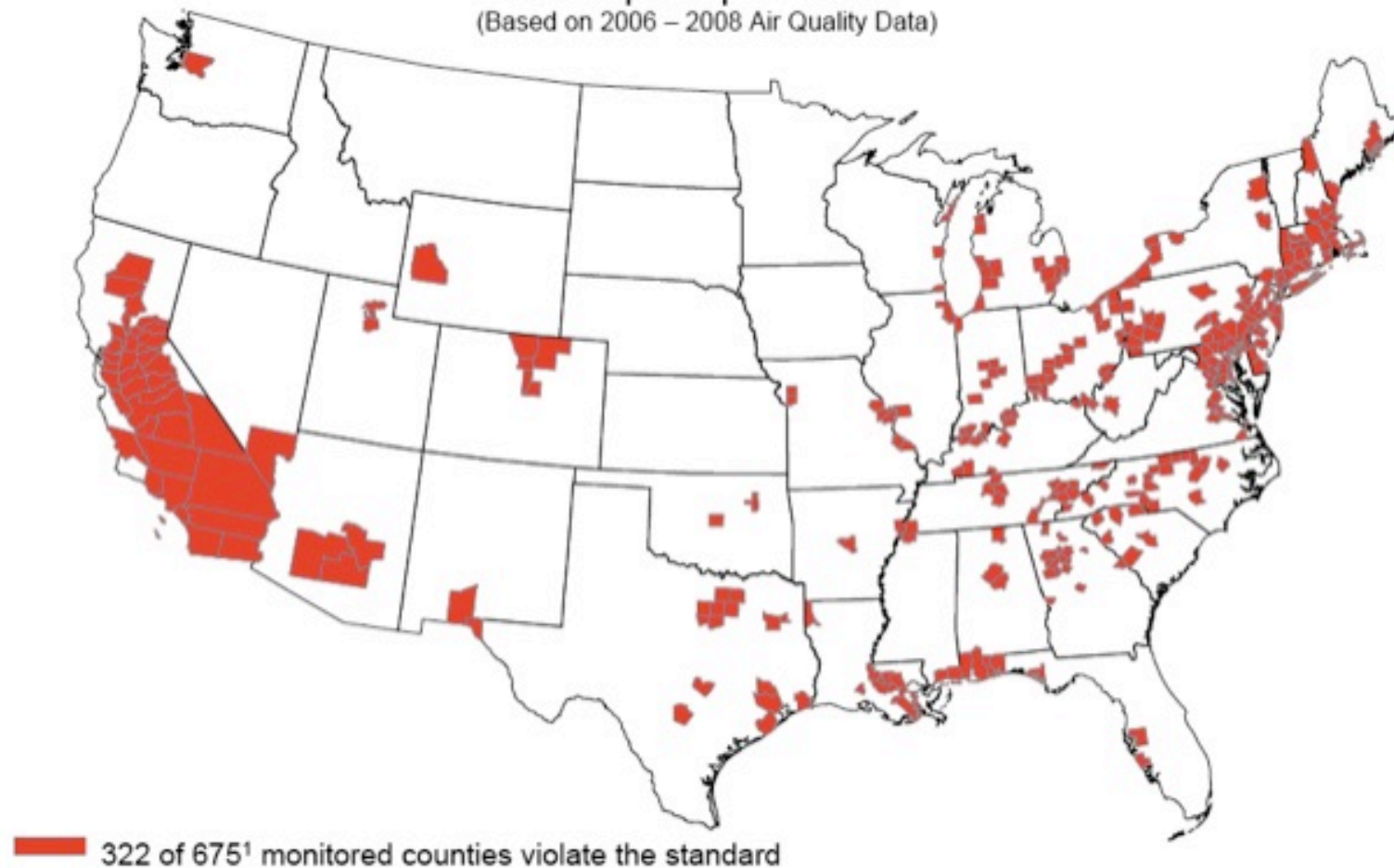
- **The major issues as we see them:**
 - **Ozone (and NAAQS compliance generally).**
 - **Permitting.**
 - **Regulatory Updates.**
 - **Greenhouse Gas Emissions.**



Ozone

- **New standards, big changes.**
- **Public health is driver: NAAQS established solely on what is necessary to protect public health and welfare. See *American Trucking Ass'n v. Whitman*, 531 U.S. 457 (2001).**
- **Oil and gas already implicated in high ozone in San Juan Basin, Upper Green River Basin, Uinta Basin, Denver/North Front Range.**
- **NO_x and VOCs from oil and gas will be scrutinized.**

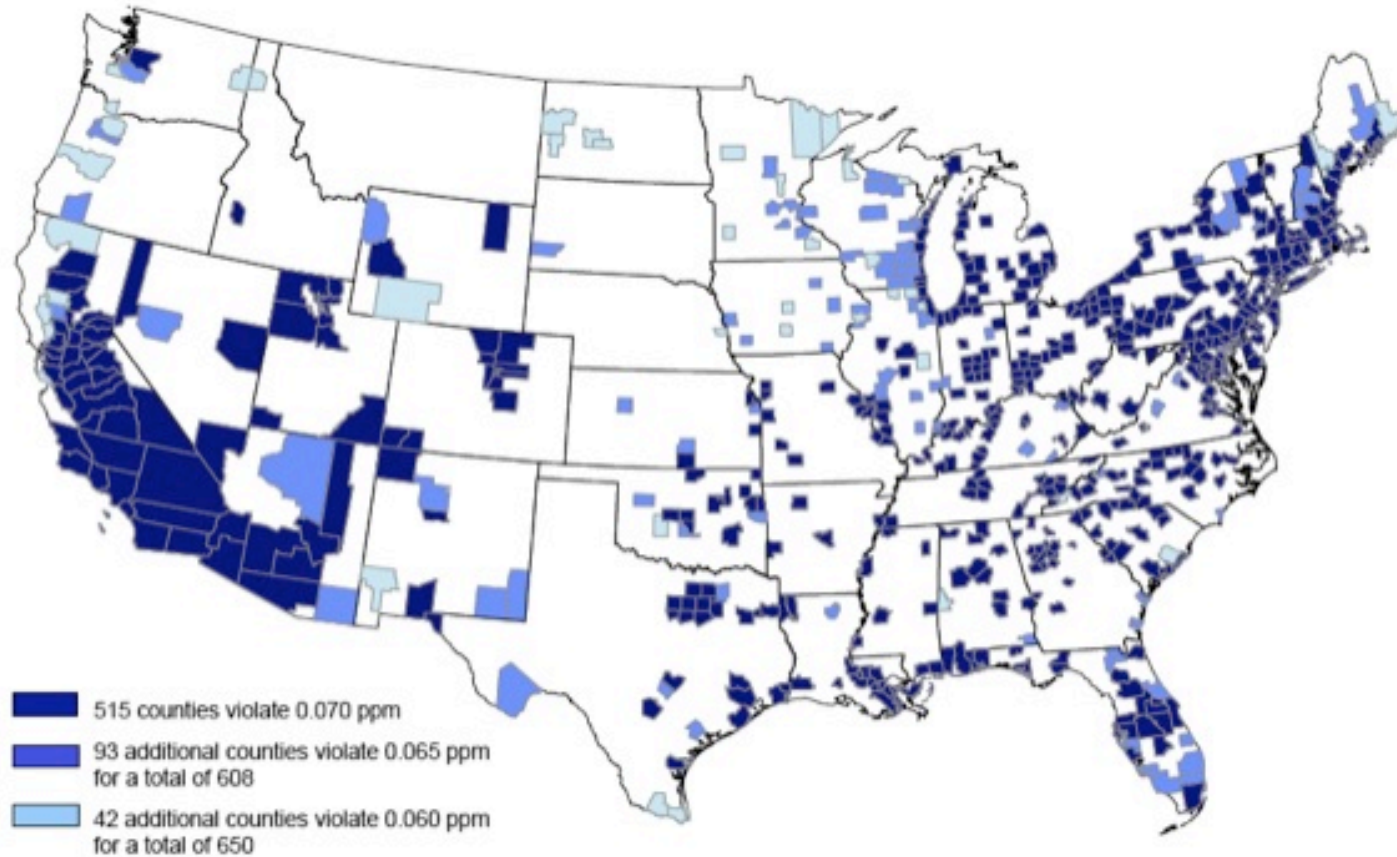
Counties With Monitors Violating the March 2008 Ground-Level Ozone Standards
0.075 parts per million
(Based on 2006 – 2008 Air Quality Data)



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

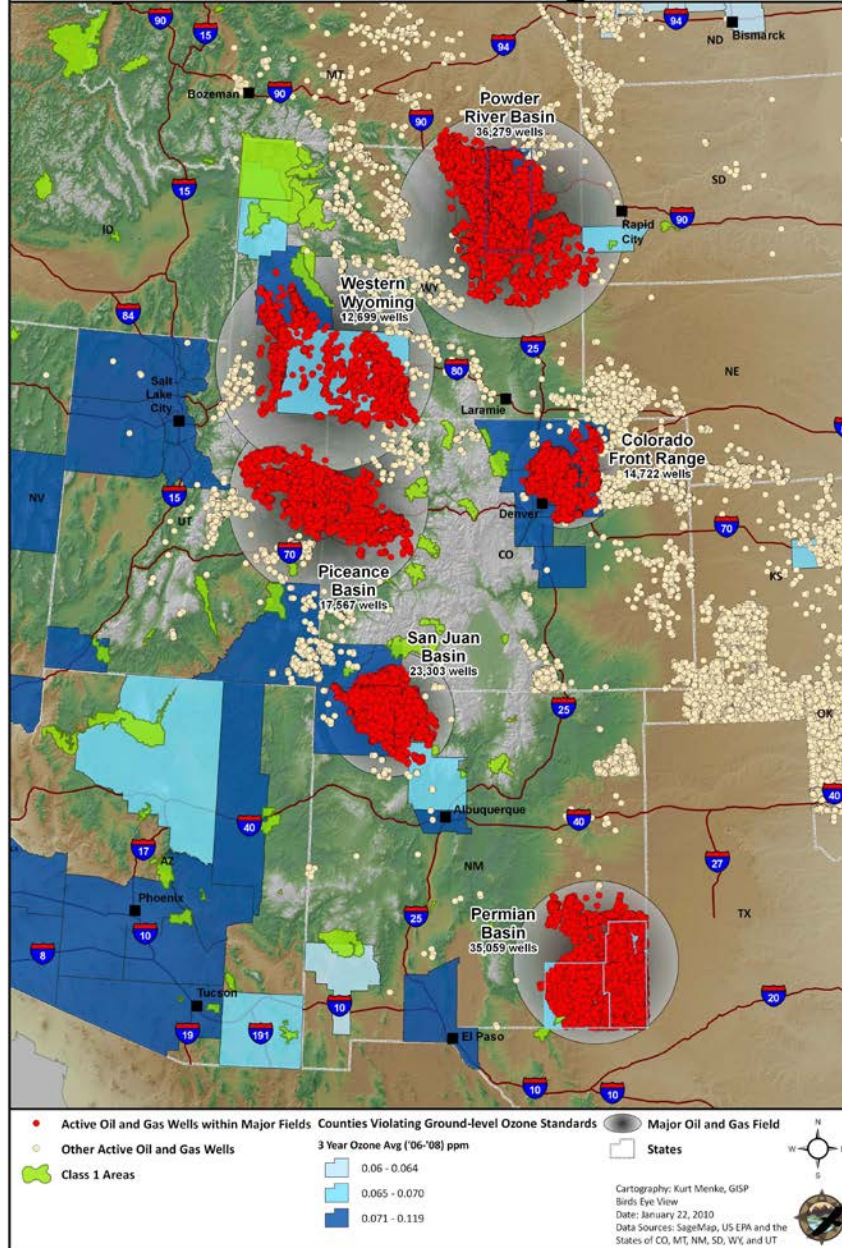
(Based on 2006 – 2008 Air Quality Data)

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





Air Quality Impacts of Oil and Gas Drilling in the West



MILESTONE	POLLUTANT						
	Lead	NO ₂ Primary	SO ₂ Primary	Ozone	NO ₂ /SO ₂ Secondary	CO	PM
NPR	New schedule being developed	<u>Jun 26, 2009</u>	<u>Nov 16, 2009</u>	Dec 21, 2009	<u>Feb 12, 2010</u>	<u>Oct 28, 2010</u>	July 2010
NFR	<u>Oct 15, 2008</u>	<u>Jan 22, 2010</u>	<u>Jun 2, 2010</u>	Aug 31, 2010	<u>Oct 19, 2010</u>	<u>May 13, 2011</u>	Oct 2011



Permitting

- **Aggregation under Prevention of Significant Deterioration and Title V of the Clean Air Act.**
- **“All of the pollutant-emitting activities which belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control).” 40 C.F.R. § 52.21(b)(6).**
- **Sept. 22, 2009 Memo from EPA Asst. Administrator.**
- **Oct. 8, 2009 Title V Petition Order, *In the Matter of Kerr-McGee/Anadarko Petroleum Corporation, Frederick Compressor Station*, Petition VIII-2008-02.**



Interdependency

- **Where there is complete interdependency, aggregation will be required.**
 - See *e.g.*, Letter from Cheryl Newton, Director, Air and Radiation Division, EPA Region 5 to Scott Huber, Summit Petroleum Corporation (Oct. 18, 2010).
- **Still unresolved: whether aggregation should be required where there is not complete, but rather substantial or primary interdependency.**



Regulatory Updates

- **EPA reviewing New Source Performance Standards, National Emission Standards for Hazardous Air Pollutants (inc. MACT and residual risk) for the Oil and Gas Sector.**
- **January 31, 2011 for proposal; November 30, 2011 for final (pursuant to CD in *WildEarth Guardians v. Jackson*, No. 1:09-CV-00089-CKK (D.D.C. 2009)).**
- **EPA indicating that everything is on the table.**
- **Indications that Agency may develop control technique guidelines, potentially NSPS guidance for existing sources under Section 111(d).**



Greenhouse Gas Emissions

- **Greenhouse gas regulation is here:**
 - **EPA Tailoring Rule.**
 - **Greenhouse gas reporting rules just finalized.**
 - **Federal agency NEPA responsibilities.**
 - **NSPS updates.**
- **Focus with oil and gas: methane controls.**
- **Controlling methane = \$\$\$\$\$\$**

What to Expect from us

- **We will be working to ensure that oil and gas is appropriately dealt with in every SIP, and that FIPs are promulgated where needed.**
- **We will ensure pollutant emitting activities are appropriately aggregated.**
- **We will be advocating for a comprehensive update to the NSPS and NESHAP.**
- **We will continue to push for mandatory greenhouse gas controls, particularly for methane, ensure compliance with tailoring rule where required.**

What we Expect from Industry

- **Plan to use the best air pollution controls and practices.**
 - **Many companies already using these controls and practices.**
- **Consistency industry-wide.**



Vapor Recovery Unit in use by Williams.

EnCana: Cutting Emissions is Good Business

EnCana Oil & Gas USA spokesman Randy Teeuwen said reducing emissions from its upstream operations isn't a "job killer" as some people claim.

"It's very much the opposite," Teeuwen said.

During the past six months EnCana has added six employees to monitor emissions from all potential sources at its Jonah natural gas field in southwest Wyoming. Another employee oversees the company's emission compliance for the Jonah operations. The effort to detect, measure and curb emissions also requires a constant upgrading of facilities.

"It goes into the economy, and somebody has to manufacture all those tanks and valves and pipes and so forth. And we just put six new people into the work force," Teeuwen said. "It's not eliminating jobs for us. It's adding jobs."

—Casper Star Tribune, Oct. 11, 2010