

**UNITED STATES DISTRICT COURT
DISTRICT OF WYOMING**

STATE OF WYOMING, et al.,

Petitioners,

v.

UNITED STATES DEPARTMENT
OF THE INTERIOR, et al.,

Respondents,

and

WYOMING OUTDOOR COUNCIL,
CENTER FOR BIOLOGICAL
DIVERSITY, CITIZENS FOR A
HEALTHY COMMUNITY, DINÉ
CITIZENS AGAINST RUINING
OUR ENVIRONMENT,
ENVIRONMENTAL DEFENSE
FUND, ENVIRONMENTAL LAW
AND POLICY CENTER,
MONTANA ENVIRONMENTAL
INFORMATION CENTER,
NATIONAL WILDLIFE
FEDERATION, NATURAL
RESOURCES DEFENSE COUNCIL,
SAN JUAN CITIZENS ALLIANCE,
SIERRA CLUB, THE
WILDERNESS SOCIETY,
WESTERN ORGANIZATION OF
RESOURCE COUNCILS,
WILDERNESS WORKSHOP, AND
WILDEARTH GUARDIANS,

Respondent-Intervenors.

Civil Case No. 2:16-cv-00285-SWS
[Lead]

[Consolidated With 2:16-cv-00280-
SWS]

Assigned: Hon. Scott W. Skavdahl

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF WYOMING

DECLARATION OF SANDRA ELY
Submitted In Support of Intervenor-Respondents' Opposition to Motions for
Preliminary Injunctions

I, Sandra Ely, declare as follows:

1. For over 20 years, between 1994 and 2015, I worked as an official in the New Mexico Environment Department. During this time, I served in various positions in the Air Quality Bureau, the Environment Protection Division, and the Occupational Health and Safety Bureau. In particular, between 1997 and 2005, I served as the Bureau Chief, and subsequently, between 2012 and 2015, I served as the Compliance and Enforcement Section Chief. In these roles, I oversaw all aspects of the air quality program—including compliance, enforcement, permitting, and planning—and I have detailed knowledge and expertise related to oil and gas production in New Mexico, including the waste of gas from venting, flaring and leaking and the impacts of oil and gas development on air quality.
2. A significant proportion of New Mexico is public lands, with more than a third of the land in the state managed by the federal government. BLM is responsible for 13.5 million acres of public lands in New Mexico, and manages federal and tribal mineral estates on an additional 42 million acres

in the state.¹ Major oil and gas development occurs on these lands. New Mexico has over 4.65 million acres of BLM-managed land leased for oil and gas development,² and federal lands and minerals account for approximately 68 percent of gas production in the state and 55 percent of state-wide oil production.³ The federal government collects over \$600 million in royalties annually from oil and gas production in the state,⁴ which are shared with the state and local governments in New Mexico and are an important source of funding for education and other critical public services.

3. Oil and gas development is a significant source of resource waste on public lands in New Mexico, with negative consequences for both state revenues and public health. New Mexico wasted 33.7 billion cubic feet of natural gas in 2013 on federal and tribal lands, with a value of over \$100 million, through venting, flaring, and leakage at production sites.⁵ The state is one of three that accounts for 88% of routine flaring⁶ and itself is responsible for

¹ BLM, *New Mexico Quick Facts*, available at <https://www.blm.gov/new-mexico>.

² BLM, *Number of Acres Leased* (FY2015), available at <https://www.blm.gov/programs/energy-and-minerals/oil-and-gas/oil-and-gas-statistics>.

³ Western Environmental Law Center, *Falling Short: State Oil & Gas Rules Fail to Control Methane Waste* (2016), available at <http://westernlaw.org/sites/default/files/2016StateMethaneWasteReport.pdf>.

⁴ Office of Natural Resources Revenue, *Reported Revenues, Federal Onshore in New Mexico* (FY2016), available at <https://statistics.onrr.gov/ReportTool.aspx>.

⁵ Calculation based on ICF International, *Onshore Petroleum and Natural Gas Operations on Tribal and Federal Lands in the United States* (2015). This calculation assumes a market price of \$3/Mcf. With a market price of \$4/Mcf, the estimated value of lost gas increases to \$135 million.

⁶ 81 Fed. Reg. 83,008 83,011 (Nov. 18, 2016).

approximately a quarter of all waste on public and tribal lands across the nation.⁷

4. In particular, the San Juan Basin—which spans New Mexico and Colorado—has one of the highest rates of methane emissions and natural gas waste in the country. While the San Juan Basin accounts for 4% of U.S. gas production, it is responsible for nearly 17% of U.S. methane losses.⁸

5. Along with this resource waste, oil and gas development on federal and tribal lands contributes to significant air pollution problems in New Mexico.

In my role as a state air quality official, I have long been aware of this issue and engaged in efforts to try to minimize the air quality impacts associated with resource development. For instance, in 2005, as Air Quality Bureau Chief, I helped convene the Four Corners Area Task Force, which was a multi-state, federal (including BLM), and stakeholder group created to look at air quality issues in the four corners region. The Task Force developed a list of mitigation options to help address the significant air quality and visibility impacts associated with energy development and other emission sources in the area. The 2007 Report of Mitigation Options has been a valuable tool for agencies responsible for air quality management in the

⁷ Calculation based on ICF International, *Onshore Petroleum and Natural Gas Operations on Tribal and Federal Lands in the United States* (2015).

⁸ Conservation Economics Institute, *A Review of the Economic Factors Surrounding the Capture of Methane from Oil and Natural Gas Development on Federal Public Land* (April 22, 2016).

region. While this group recognized the importance and availability of measures to minimize losses and reduce pollution from the oil and gas sector, including on federal lands, it did not result in the deployment of measures by the state of New Mexico that would secure these benefits.

6. Since that time, evidence has only further confirmed the magnitude and significance of this problem and the need for corrective action. For instance, a 2014 study first documented substantially elevated methane emissions in a 2,500-square-mile methane “hot spot,” over the Four Corners region, including the San Juan Basin.⁹ A subsequent study released in 2016, found that the “hot spot” was largely attributable to oil and gas development, and measured more than 250 sources with elevated loss rates, including oil and gas sources like storage tanks, pipeline leaks, and well pads.¹⁰
7. In addition to methane, oil and gas production sites emit VOCs, which contribute to the formation of ground-level ozone, also known as smog. Ozone has serious effects on human health, with exposure leading to an increased risk of respiratory and cardiovascular disease, stroke, and premature death. Oil and gas development in the San Juan Basin contributes

⁹ NASA news release, Oct. 9, 2014 available at <http://www.nasa.gov/press/2014/october/satellitedata-shows-us-methane-hot-spot-bigger-thanexpected/#.VLbQ0PnF9sE>.

¹⁰ Christian Frankenberg, et al., *Airborne methane remote measurements reveal heavy-tail flux distribution in Four Corners region*, Proceedings of the National Academy of the Sciences of the United States of America (June 17, 2016), available at <http://www.pnas.org/content/113/35/9734.full>.

to high ozone levels in San Juan County, which received an “F” for high ozone days from the American Lung Association in its most recent “State of the Air Report.”¹¹

8. The state of New Mexico does not have requirements in place to adequately address venting, flaring, and leakage from oil and gas production. New Mexico has neither waste minimization standards nor comprehensive air quality controls for oil and gas emissions, and does not have a minor source permitting program covering these sources. For instance, New Mexico allows associated gas to be flared or vented for 60 days after completion, after which flaring or venting is prohibited—but the requirement includes broad-based exemptions to “prevent undue hardship on the applicant.”¹² In addition, New Mexico entirely lacks standards for many sources like equipment leaks and storage tanks that are covered by the Waste Prevention Rule and that have contributed to the significant losses in the San Juan Basin described above.¹³ As a result, waste and emissions from oil and gas production are currently largely uncontrolled in New Mexico.

¹¹ American Lung Association, *State of the Air Report Card: New Mexico* (2016), <http://www.lung.org/our-initiatives/healthy-air/sota/city-rankings/states/new-mexico>.

¹² N.M. Admin. Code 19.15.18.12(A), (B), (F).

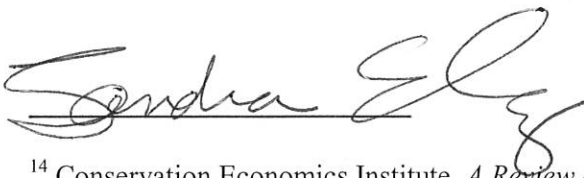
¹³ See Western Environmental Law Center, *Falling Short: State Oil & Gas Rules Fail to Control Methane Waste* (2016), available at <http://westernlaw.org/sites/default/files/2016StateMethaneWasteReport.pdf>.

9. BLM's Rule will minimize waste from existing oil and gas sources in New Mexico and is critical to address the gaps left by the lack of existing federal and state requirements. The Rule will have benefits for New Mexicans by providing additional revenues from captured gas that would otherwise be wasted. For instance, I am aware of a recent study, focused on the San Juan Basin, which suggested that BLM's proposed leak detection and repair requirements alone would result in anywhere from \$1–\$6 million dollars of additional revenue for New Mexico.¹⁴ The Rule will also have co-benefits for air quality and so help to protect the health of New Mexicans. This is particularly true in areas of the state—like the San Juan Basin—that have had persistent issues with poor air quality and for which existing federal and state efforts have resulted in little progress. Absent the Waste Prevention Rule, I am concerned that resource loss and poor air quality associated with oil and gas development will continue unabated in New Mexico.

I declare under penalty of perjury that the foregoing is true and correct.

Sandra Ely

Dated December 14, 2016

A handwritten signature in cursive script, appearing to read "Sandra Ely", written over a horizontal line.

¹⁴ Conservation Economics Institute, *A Review of the Economic Factors Surrounding the Capture of Methane from Oil and Natural Gas Development on Federal Public Land* (April 22, 2016).